COUNTY OF HENRICO
DEPARTMENT OF FINANCE
PURCHASING DIVISION
CONTRACT EXTRACT
NOTICE OF RENEWAL

DATE:		July 25, 2024
CONTRACT COMMODITY/SERVICE: *(include contracting entity if cooperative)*		Literacy and Math Universal Screening and Progress Monitoring Software and Services
CONTRACT NUMBER:		2481A
COMMODITY CODE:		920.15
CONTRACT PERIOD:		July 26, 2024 to July 25, 2025
RENEWAL OPTIONS:		Three optional one year renewals to July 25, 2028
USER DEPARTMENT:		Schools
	Contact Name:	Kennedy Venaglia
	Phone Number:	804-652-3640
	Email Address:	kwvenaglia@henrico.k12.us.va
HENRICO COOPERATIVE TERMS INCLUDED:		YES
SUPPLIER:	Name:	Curriculum Associates, LLC
	Address:	153 Rangeway Road
	City, State:	North Billerica, MA 01862-2013
	Contact Name:	Joan Pritchard
	Phone Number:	304-563-6001
	Email address:	jpritchard@cainc.com
ORACLE SUPPLIER NUMBER:		3257
BUSINESS CATEGORY:		Non-SWaM
PAYMENT TERMS:		Net 30
DELIVERY:		As needed and as Requested
		NOTE: Contract is for one year after implementation and 4 additional one year renewals after that.
FOB:		Destination
BUYER:	Name:	Amy Anthes
	Title:	Procurement Analyst III
	Phone:	804-501-5686
	Email:	Ant041@henrico.gov

This contract is the result of a competitive solicitation issued by the Department of Finance, Purchasing Division. A requisition must be generated for all purchases made against this contract and the requisition must reference the contract number.

Curriculum Associates

Prepared For:
Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223

5/20/2024

Dear Amy Anthes,

Thank you for requesting a price quote from Curriculum Associates. The chart below provides a summary of the products and i-Ready Partner Services included. If you have any questions or would like any changes, please contact us.

Implementation Starting: 2024-2025 Quote ID: 347166.5 Quote Valid through: 12/31/2024

Product	List Price	Net Price
i-Ready	$943,308.25	$765,230.90
Professional Learning	$220,000.00	$154,500.00
i-Ready Partners Services	$94,000.00	$0.00

i-Ready Partners Services Includes:

- *Initial Implementation Services: Provisioning, Initial Rostering, Hosting, Technology Assessment*
- *Implementation Management: Partner Success Manager You Know On A First Name Basis, Implementation Guidance, Realtime Achievement Data After Every Assessment, Ongoing Data Management*
- *Staff Development Consultation and Resources: Consultative services to help you plan and make the most of Professional Learning sessions; Access to Online Educator Learning (OEL) Digital Courses, and i-Ready Central Self-Service Resources*
- *Technical Support: Proactive Network Monitoring & Issue Notification, Annual Health Check, Technical Support*

List Total:	$1,257,308.25
Savings:	$337,577.36
Shipping/Tax/Other:	$0.00
Total:	**$919,730.90**

Thank you again for your interest in Curriculum Associates.

Sincerely

Jackie Davis
(540) 784-5410
jackiedavis@cainc.com

Please submit this quote with your purchase order

Curriculum Associates

Quote ID: 347166.5 **Date:** 5/20/2024 **Quote Valid through:** 12/31/2024

Prepared For:
Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223
ant041@henrico.us
(804) 652-3600

Your Representative:
Jackie Davis
(540) 784-5410
jackiedavis@cainc.com

Anthony Mehfoud ES 8320 Buffin Rd, Henrico, VA 23231

Total Building Enrollment: 297, Grade Range: PK - 2

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$14,110.00	$11,425.28	$11,425.28
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$11,425.28
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,425.28

Arthur Ashe Jr ES 1001 Cedar Fork Rd, Richmond, VA 23223

Total Building Enrollment: 462, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Brookland MS 9200 Lydell Dr, Henrico, VA 23228

Total Building Enrollment: 1074, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$6.89	$585.65
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	68	$7.25	$6.89	$468.52
					Subtotal:	$1,054.17
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$1,054.17

Chamberlayne ES 8200 St Charles Rd, Richmond, VA 23227

Total Building Enrollment: 300, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$14,110.00	$11,425.28	$11,425.28
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$11,425.28
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,425.28

Charles M Johnson ES 5600 Bethlehem Rd, Richmond, VA 23230

Total Building Enrollment: 372, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Colonial Trail ES 12101 Bacova Dr, Glen Allen, VA 23059

Total Building Enrollment: 630, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Crestview ES 1901 Charles St, Richmond, VA 23226

Total Building Enrollment: 330, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$14,110.00	$11,425.28	$11,425.28
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$11,425.28
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,425.28

David Kaechele ES 5680 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Donahoe ES 1801 Graves Rd, Sandston, VA 23150

Total Building Enrollment: 486, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Dumbarton ES 9000 Hungary Spring Rd, Henrico, VA 23228

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Echo Lake ES 5200 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 498, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Elizabeth Holladay ES 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 750, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Elko MS 5901 Elko Rd, Sandston, VA 23150

Total Building Enrollment: 730, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	99	$7.25	$6.89	$682.11
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	109	$7.25	$6.89	$751.01
					Subtotal:	$1,433.12
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$1,433.12

Fair Oaks ES 201 Jennings Rd, Highland Spgs, VA 23075

Total Building Enrollment: 360, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Fairfield MS 5121 Nine Mile Rd, Richmond, VA 23223

Total Building Enrollment: 987, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	81	$7.25	$6.89	$558.09
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$6.89	$585.65
					Subtotal:	$1,143.74
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$1,143.74

Gayton ES 12481 Church Rd, Henrico, VA 23233

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

George F Baker ES 6651 Willson Rd, Henrico, VA 23231

Total Building Enrollment: 384, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

George H Moody MS 7800 Woodman Rd, Henrico, VA 23228

Total Building Enrollment: 1072, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	24	$7.25	$6.89	$165.36
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	25	$7.25	$6.89	$172.25
					Subtotal:	$337.61
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$337.61

Glen Allen ES 11101 Mill Rd, Glen Allen, VA 23060

Total Building Enrollment: 582, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Glen Lea ES 3909 Austin Ave, Richmond, VA 23222

Total Building Enrollment: 408, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Greenwood ES 10960 Greenwood Rd, Glen Allen, VA 23059

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Harvie ES 3401 Harvie Rd, Richmond, VA 23223

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Henrico Virtual Academy 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 198, Grade Range: PK - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 200 or fewer Students 1 Year	Multiple	15001.0	1	$8,420.00	$6,820.15	$6,820.15
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$6,820.15
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$6,820.15

Henry Ward ES 3400 Darbytown Rd, Henrico, VA 23231

Total Building Enrollment: 444, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Highland Springs ES 600 Pleasant St, Highland Spgs, VA 23075

Total Building Enrollment: 504, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Holman MS 600 Concourse Blvd, Glen Allen, VA 23059

Total Building Enrollment: 850, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	36	$7.25	$6.89	$248.04
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	36	$7.25	$6.89	$248.04
					Subtotal:	$496.08
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$496.08

Hungary Creek MS 4909 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 829, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	19	$7.25	$6.89	$130.91
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	36	$7.25	$6.89	$248.04
					Subtotal:	$378.95
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$378.95

Jackson Davis ES 8801 Nesslewood Dr, Henrico, VA 23229

Total Building Enrollment: 486, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Jacob L Adams ES 600 S Laburnum Ave, Richmond, VA 23223

Total Building Enrollment: 438, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

John Rolfe MS 6901 Messer Rd, Henrico, VA 23231

Total Building Enrollment: 764, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	65	$7.25	$6.89	$447.85
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	84	$7.25	$6.89	$578.76
					Subtotal:	$1,026.61
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$1,026.61

L Douglas Wilder MS 6900 Wilkinson Rd, Richmond, VA 23227

Total Building Enrollment: 761, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	34	$7.25	$6.89	$234.26
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	40	$7.25	$6.89	$275.60
					Subtotal:	$509.86
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$509.86

Laburnum ES 500 Meriwether Ave, Richmond, VA 23222

Total Building Enrollment: 432, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Lakeside ES 6700 Cedar Croft St, Henrico, VA 23228

Total Building Enrollment: 414, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Longdale ES 9500 Norfolk St, Glen Allen, VA 23060

Total Building Enrollment: 450, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Maude Trevvett ES 2300 Trevvett Dr, Henrico, VA 23228

Total Building Enrollment: 504, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Maybeury ES 901 Maybeury Dr, Henrico, VA 23229

Total Building Enrollment: 618, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Montrose ES 2820 Williamsburg Rd, Henrico, VA 23231

Total Building Enrollment: 294, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$14,110.00	$11,425.28	$11,425.28
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$11,425.28
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,425.28

Nuckols Farm ES 12351 Graham Meadows Dr, Henrico, VA 23233

Total Building Enrollment: 590, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Pemberton ES 1400 Pemberton Rd, Henrico, VA 23238

Total Building Enrollment: 336, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$14,110.00	$11,425.28	$11,425.28
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$11,425.28
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,425.28

Pinchbeck ES 1275 Gaskins Rd, Henrico, VA 23238

Total Building Enrollment: 492, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Pocahontas MS 12000 Three Chopt Rd, Henrico, VA 23233

Total Building Enrollment: 825, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	11	$7.25	$6.89	$75.79
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	7	$7.25	$6.89	$48.23
					Subtotal:	$124.02
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$124.02

Quioccasin MS 9400 Quioccasin Rd, Henrico, VA 23238

Total Building Enrollment: 1040, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	28	$7.25	$6.89	$192.92
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	61	$7.25	$6.89	$420.29
					Subtotal:	$613.21
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$613.21

R C Longan ES 9200 Mapleview Ave, Henrico, VA 23294

Total Building Enrollment: 432, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Ratcliffe ES 2901 Thalen St, Richmond, VA 23223

Total Building Enrollment: 402, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Ridge ES 8910 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 438, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Rivers Edge ES 11600 Holman Ridge Rd, Glen Allen, VA 23059

Total Building Enrollment: 748, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Ruby F Carver ES 1801 Lauderdale Dr, Henrico, VA 23238

Total Building Enrollment: 432, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Sandston ES 7 Naglee Ave, Sandston, VA 23150

Total Building Enrollment: 180, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 200 or fewer Students 1 Year	Multiple	15001.0	1	$8,420.00	$6,820.15	$6,820.15
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$6,820.15
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$6,820.15

Seven Pines ES 301 Beulah Rd, Sandston, VA 23150

Total Building Enrollment: 354, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Shady Grove ES 12200 Wyndham Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 558, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Short Pump ES 3425 Pump Rd, Henrico, VA 23233

Total Building Enrollment: 558, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Short Pump MS 4701 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 1112, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	14	$7.25	$6.89	$96.46
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	26	$7.25	$6.89	$179.14
					Subtotal:	$275.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$275.60

Skipwith ES 2401 Skipwith Rd, Henrico, VA 23294

Total Building Enrollment: 480, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$20,050.00	$16,240.53	$16,240.53
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$16,240.53
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$16,240.53

Springfield Park ES 4301 Fort McHenry Pkwy, Glen Allen, VA 23060

Total Building Enrollment: 594, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Three Chopt ES 1600 Skipwith Rd, Henrico, VA 23229

Total Building Enrollment: 282, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$14,110.00	$11,425.28	$11,425.28
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$11,425.28
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,425.28

Tuckahoe ES 701 Forest Ave, Henrico, VA 23229

Total Building Enrollment: 612, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Tuckahoe MS 9000 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 1003, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	59	$7.25	$6.89	$406.51
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	65	$7.25	$6.89	$447.85
					Subtotal:	$854.36
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$854.36

Twin Hickory ES 4900 Twin Hickory Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,620.00	$19,129.68	$19,129.68
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$19,129.68
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$19,129.68

Varina ES 2551 New Market Rd, Henrico, VA 23231

Total Building Enrollment: 263, Grade Range: 3 - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$14,110.00	$11,425.28	$11,425.28
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$2,000.00	$0.00	$0.00
					Subtotal:	$11,425.28
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,425.28

Henrico Co Public Schools 3820 Nine Mile Rd Ste A, Richmond, VA 23223

Total Building Enrollment: 32647, Grade Range: K - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Professional Learning Add On Leadership Session AY 24-25	Multiple	38630.0	5	$0.00	$0.00	$0.00
Professional Learning Session (up to 6 hours) AY 24-25	Multiple	38557.0	100	$2,200.00	$1,545.00	$154,500.00
					Subtotal:	$154,500.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$154,500.00

Total	
List Total:	$1,257,308.25
Savings:	$337,577.36
Merchandise Total:	$919,730.90
Voucher/Credit:	$0.00
Estimated Tax:	$0.00
Estimated Shipping:	$0.00
Total:	**$919,730.90**

Special Notes

RFP Prices. All i-Ready purchases require professional development.

10% discount applied to i-Ready site licenses and 5% to per student licenses based on scope of quote.

F.O.B.: N. Billerica, MA 01862
Shipping: Shipping based on MDSE total
Terms: Net 30 days, pending credit approval
Fed. ID: #26-3954988

Please submit this quote with your purchase order

Y60

Curriculum Associates®

Information on Professional Learning Sessions and COVID-19

Protecting the health and safety of the educators we serve and their students, as well as the health and safety of our employees, is of paramount importance to Curriculum Associates. While it is our preference to deliver PL sessions in person, circumstances related to COVID-19 may require us to provide sessions virtually instead. Curriculum Associates' policy is to only provide PL sessions in person where one of our employees can reach the session site by car and where adequate safety measures are in place to protect the health of our session leaders and participants. Curriculum Associates reserves the right to switch any session from in-person to virtual if we cannot reach a session site by car, if adequate safety measures cannot be put in place, or if Curriculum Associates determines that it would otherwise put it employees at risk to provide an in-person session.

If your school or district will not permit visitors at the time of a scheduled session, Curriculum Associates would be happy to provide an equivalent live, virtual session via videoconference. Similarly, Curriculum Associates will comply with your school or district's health and safety requirements regarding on-site visitors if we are given adequate advance notice. Our PL Operations team will work with school or district personnel to hold sessions in a manner that protects the safety of educators and your school community as well as Curriculum Associates employees.

We are pleased to be able to serve you in these challenging times and look forward to providing productive learning sessions to your staff. Any questions regarding scheduling in-person or virtual training sessions should be directed to pdoperations@cainc.com.

i-Ready Partners

Unparalleled Service and Educator Support

The *i-Ready Partners* team was born from our core value: the quality of our services is as important as the quality of our products. Know that when you implement our programs, your local *i-Ready Partners* will be there to support your team every step of the way.

Service Components

Our *i-Ready Partners* team is tasked with helping you implement our programs to meet ambitious district goals. *i-Ready Partners* support includes:

- **An Account Manager You Know on a First-Name Basis:** Dedicated account managers are your point of connection to a powerful network of *i-Ready* experts focused on making your implementation successful.
- **Consultative Professional Development Planning:** Tailored professional development plans ensure that PD is tied to your implementation goals and that educators are equipped to optimize the use of our programs from day one.
- **Real-Time Achievement Data after Every Assessment:** Detailed student achievement analytics to empower data-driven practices in classrooms.
- **Educational Consultants to Help You Know What's Coming Next:** Educational consultants to keep you up to speed on our latest research, development, and best practices.
- **Technical Support and Health Checks:** Proactive support that anticipates and heads off issues before they start—and is there for you should they arise.



Account Management



Professional Development



Educational Consultants



Achievement Analytics



Technical Support

Your *i-Ready Partners* Team

Dedicated to helping you implement *i-Ready* programs and achieve your district goals



Curriculum Associates

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Curriculum Associates®

Placing an Order

Email: Orders@cainc.com
Fax: 1-800-366-1158
Mail:
ATTN: CUSTOMER SERVICE DEPT.
Curriculum Associates LLC
153 Rangeway Rd
North Billerica, MA 01862-2013

Please visit CurriculumAssociates.com for more informationabout placing orders or contact CA's customer service department (1-800-225-0248) and reference quote numberfor questions.
Please attach quote to all signed purchase orders.
If tax exempt, please submit a valid exemption certificate with PO and quote in order to avoid processing delays. Exemption certificates can also be submitted to exempt@cainc.com.

Shipping Policy

Unless otherwise noted, shipping costs are calculated as follows:

Order Amount	Freight Amount
$74.99 or less	Max charge of $12.75
$75.00 to $999.99	12% of order
$1,000 to $4,999.99	10% of order

Order Amount	Freight Amount
$5,000.00 to $99,999.99	9% of order
$100,000 and more	7% of order

Please contact your local CA representative or customer service (1-800-225-0248) for expedited shipping rates. The weight limit for an expedited order is 500lbs.

The enhanced shipping and handling services listed below are available upon request subject to the availability of our carrier partners. Please notify us of these delivery requests prior to submitting your PO so that we can include the service on your quote appropriately:

- Interior Location Delivery $50/shipment location
- White Glove Delivery Service $350/shipment location

If our carrier partners are unable to deliver to the location instructed on the PO or you need to change the time or location of delivery, one or more of the following fees may be applicable:

- Delivery Address Change $100/shipment location
- Freight Storage $150/day/shipment location
- Freight Carrier Redelivery $100/shipment location

Unless otherwise expressly indicated, the shipping terms for all deliveries is FOB CA's Shipping Point (whether to a CA or third party facility). Risk of loss and title is passed to purchaser upon transfer of the goods to carrier, standard shipping charges (listedabove) are added to the invoice or included in the unit price unless otherwise specified.

Supply chain challenges outside of Curriculum Associates' control may impact inventory availability for print product. We recommend submission of purchase orders as soon as possible to help ensure timely delivery.

Payment Terms

Payment terms are as follows:

- With credit approval: Net 30 days
- Without credit approval: payment in full at time of order
- Accounts must be current before subsequentshipments are made

To ensure payment processing is timely and environmentally conscious, CA encourages ACH payments. If you would like to pay via ACH, please request remittance information by emailing AR@cainc.com.
Please send any payment notifications to payments@cainc.com. Credit card payments are only accepted for purchases under $50,000.

Invoice Receipt Preference

CA is pleased to offer electronic invoice delivery. Electronic invoice delivery allows CA to deliver your invoice in a timely and environmentally friendly manner. To request electronic invoice delivery please contact the CA Accounts Receivable team at invoices@cainc.com or by fax (1-800-366-1158). Please reference your quote number, provide a valid email address where the invoice should be directed, and indicate you would like to opt into electronic invoice delivery.

Terms of Service

Customer's use of i-Ready® shall be subject to the i-Ready Terms and Conditions of Use, which can be found at i-ready.com/support. Customer's professional-learning sessions will expire two years following the date of your purchase order or the implementation year noted on your quote, whichever comes first and are subject to the Professional Learning Terms of Service, which can be found at i-ready.com/support.

Return Policy

For any non-print products - your subscription may be terminated and you may request a pro-rata refund within 90 days of license start date. After 90 days, your non-print products purchase shall be final and no refunds are available. Except for materials sold on a non-refundable basis, purchaser may return, at purchaser risk and expense, purchased print materials with pre-approval from CA's Customer Service department within 12 months of purchase. Please examine your order upon receipt. Before returning material, call CA's Customer Service department (1-800-225-0248 option 2) for return authorization and documentation. When returning material, please include your return authorization number and the return form that will be provided to you by CA's Return department. We do not accept returns on unused i-Ready or Toolbox licenses®, materials that have been used and/or are not in "saleable condition," and individual components of kits or sets including but not limited to BRIGANCE® Kits, Ready® student and teacher sets, Ready Classroom® student and teacher sets, and Magnetic Reading classroom kits.

COMMONWEALTH OF VIRGINIA

County of Henrico

Non-Professional Services Contract
Contract No.2481

This Non-Professional Services Contract (this "Contract") entered into this 26th day of July 2023 by Curriculum Associates, LLC (the "Contractor") and the County School Board of Henrico County, Virginia ("HCPS").

WHEREAS HCPS has awarded the Contractor this Contract pursuant to Request for Proposals No. 23-2481-1ARA dated February 8, 2023, as modified by Addendum 1 dated March 8, 2023, (the "Request for Proposals"), for Literacy and Math Universal Screener and Progress Monitoring Software and Services for Grades K-8.

WITNESSETH that the Contractor and HCPS, in consideration of the mutual covenants, promises and agreements herein contained, agree as follows:

SCOPE OF CONTRACT: The Contractor shall provide the services to HCPS as set forth in the Contract Documents.

COMPENSATION: The compensation HCPS will pay to the Contractor under this Contract shall be Exhibit F Pricing.

CONTRACT TERM: The Contract term shall be for a period of **1** year after implementation and ending 12 months thereafter. HCPS may renew the Contract for up to 4 1-year terms giving 30 days' written notice before the end of the term unless Contractor has given HCPS written notice that it does not wish to renew at least 90 days before the end of the term.

CONTRACT DOCUMENTS: This Contract hereby incorporates by reference the documents listed below (the "Contract Documents") which shall control in the following descending order:

1. This Non-Professional Services Contract between HCPS and Contractor.
2. License Agreement Addendum (Exhibit A)
3. The Negotiated Modifications (Exhibit B)
4. Virginia School Data Privacy Agreement (Exhibit C)
5. Curriculum Associates Terms of Use Agreement (Exhibit D)
6. Service Level Agreement (Exhibit E)
7. The General Contract Terms and Conditions included in the Request for Proposals.
8. Contractor's Best and Final Offer dated May 22, 2023 (Exhibit F).
9. Contractor's Original Proposal dated March 8, 2023 (Exhibit G).
10. The Scope of Services included in the Request for Proposals.

IN WITNESS WHEREOF, the parties have caused this Contract to be duly executed intending to be bound hereby.

Curriculum Associates, LLC

153 Rangeway Road
North Billerica, MA 01862

Signature

Robert Waldron, CEO
Printed Name and Title

July 19, 2023
Date

County School Board of Henrico County, Virginia
P.O. Box 23120
Henrico, VA 23223

Digitally signed by: Oscar Knott
DN: CN = Oscar Knott email = kno008@henrico.us C = US O = County of Henrico, Virginia OU = Department of Finance - Purchasing Division
Date: 2023.07.26 09:04:07 -04'00'

Signature

Oscar Knott, CPP, CPPO, VCO
Purchasing Director

July 26, 2023
Date

AS TO FORM
AS TO FORM
ASSISTANT COUNTY ATTORNEY
ASSISTANT COUNTY ATTORNEY

APPROVED AS TO FORM
7/21/23
ASSISTANT COUNTY ATTORNEY

EXHIBIT A

LICENSE AGREEMENT ADDENDUM

The County School Board of Henrico County, Virginia] ("**County**") and Curriculum Associates, LLC, a Massachusetts limited liability company, ("**Licensor**"), are entering into Non-Professional Services Contract No. 2481 ("**Agreement**"). Licensor has requested that its i-Ready Terms and Conditions of Use last updated February 22, 2023 ("**Contract**") be incorporated by reference into the Agreement. This License Agreement Addendum ("**LAA**") (i) is attached to the Agreement and incorporated therein by reference, governing the use of all software licensed by the County thereunder ("**Software**"), and (ii) modifies and supersedes the Contract to the extent the Contract and the LAA are in conflict.

For good and valuable consideration, the parties agree as follows:

1. Certain provisions may appear in or be incorporated by reference into the Contract that the County does not accept. If any of the following provisions appear in the Contract, or if any provisions in the Contract have the effect of any of the following, such provisions are void, will not have any effect, and will not be enforceable against the County:
   A. Requiring the application of the law of any place other than the Commonwealth of Virginia, United States of America in interpreting or enforcing the Contract;
   B. Requiring or permitting that any dispute under the Contract be resolved in any court other than a state court of competent jurisdiction in Henrico County, Virginia;
   C. Requiring any total or partial compensation or payment for lost profits or liquidated damages by the County if the Contract is terminated early;
   D. Imposing any interest rate in excess of one percent per month or the default interest rate under Title 2, Chapter 43, Article 4 of the Code of Virginia, whichever is lower;
   E. Requiring the County to maintain insurance for Licensor's benefit;
   F. Granting Licensor a security interest in any property of the County;
   G. Requiring the County to indemnify, defend, or hold harmless Licensor or any entity or person for any act or omission of the County, including the County's officers, agents, and employees;
   H. Limiting or adding to the time period within which claims can be made or actions can be brought pursuant to Title 8.01, Chapter 3 of the Code of Virginia;
   I. Restricting or prohibiting the County's selection and approval of counsel or approval of any settlement;
   J. Binding the County to any arbitration or otherwise committing the County to participate in any binding form of alternative dispute resolution;
   K. Obligating the County to pay costs of collection or attorney's fees;
   L. Requiring any dispute resolution procedure(s) other than the default available under the Virginia Public Procurement Act;
   M. Requiring the County to limit its rights or waive its remedies at law or in equity;
   N. Establishing a presumption of severe or irreparable harm to Licensor by the actions or inactions of the County;
   O. Limiting the liability of Licensor for property damage, death, or personal injury;
   P. Capping the County's damages or excluding types of damages available to the County;

Q. Applying UCITA except as may be required by Section 59.1-501.15 of the Code of Virginia;
R. Not complying with all applicable federal, state, and local laws, regulations, and ordinances;
S. Requiring that the County waive any immunity to which it is lawfully entitled;
T. Requiring that the County, which is tax exempt, be responsible for payment of any taxes, duties, or penalties;
U. Obligating the County beyond approved and appropriated funding;
V. Permitting Licensor to unilaterally modify the Contract;
W. Having the Contract supersede agreements negotiated by the parties;
X. Renewing or extending the Contract beyond the term set forth in the Agreement or automatically renewing the Contract;
Y. Requiring the purchase of a new release, update, or upgrade of Software, or subsequent renewal or maintenance, in order for the County to receive or maintain the benefits of Licensor's indemnification of the County against any claims of infringement on any third-party intellectual property rights;
Z. Intentionally deleted.
AA. Making the County liable to pay Licensor's travel expenses, including transportation, meals, lodging, and incidental expenses, other than those explicitly approved by the County in advance.

2. Licensor represents and warrants that it is the owner of the Software or otherwise has the right to grant to the County the license to use the Software without violating or infringing any law, rule, regulation, copyright, patent, trade secret, or other proprietary right of any third party.

3. Licensor agrees to indemnify, defend and hold harmless the County and the County's officers, agents, and employees, from any claims, damages, suits, actions, liabilities and costs of any kind or nature, including attorneys' fees, that arise out of or result from: (i) any negligent act, negligent omission, or intentional or willful conduct of any employee, contractor, or agent of Licensor; (ii) any material breach of any representation, warranty, or covenant of Licensor; (iii) any defect in the Software; or (iv) any actual or alleged infringement or misappropriation of any third party's intellectual property rights by any of the Software.

4. All payment obligations from the County under the Contract are subject to receipt of necessary appropriations from the Henrico County, Virginia Board of Supervisors. In the event of non-appropriation of funds for the items under the Contract, the County may terminate, in whole or in part, the Contract or any order for those goods or services for which funds have not been appropriated. This may extend to the renewal of maintenance services for only some of the licenses granted by Licensor. There will be no time limit for termination due to termination for lack of appropriations.

5. If Licensor provides any update or upgrade subject to additional payment or subject to the acceptance of additional terms and conditions, the County will have the right to reject such update or upgrade.

6. The person signing below for Licensor represents and warrants that he or she is duly authorized to execute and deliver this LAA on Licensor's behalf.

7. This LAA and the Agreement shall take effect simultaneously.

8. This LAA may be modified by the parties' mutual agreement. Any modifications shall be reflected in a separate document.

Curriculum Associates, LLC	School Board of Henrico County, Virginia
Signature	Digitally signed by: Oscar Knott DN: CN = Oscar Knott email = kno008@henrico.us C = US O = County of Henrico, Virginia OU = Department of Finance - Purchasing Division Date: 2023.07.26 10:12:12 -04'00' Signature
Robert Waldron, CEO Printed Name and Title	Oscar Knott Purchasing Director, CPP, CPPB, VCO
July 21, 2023 Date	July 26, 2023 Date

EXHIBIT B
NEGOTIATED MODIFICATIONS TO
CONTRACT No. 2481

These Negotiated Modifications are hereby incorporated into Contract 2481 (the "Contract") for Literacy and Math Universal Screener and Progress Monitoring Software and Services for Grades K-8 ("HCPS") as of the effective date of the Contract.

Whereas, HCPS and Curriculum Associates, LLC desire to agree in writing to modify the final terms and conditions of the Contract.

Therefore, in consideration of the Recital set forth above and good in valuable consideration as set forth in the Contract, the parties agree that the General Contract Terms and Conditions included in the Request for Proposals No. 23-2481-1ARA, which are incorporated by reference into the Contract, are modified as follows as of the effective date of the Contract, in accordance with the following:

1. Section V, Subsection DD(2). Contract Period (page 13) is reworded as follows: The contract may be renewed for four (4) additional one-year periods upon the sole discretion of the County. Each renewal shall automatically be at Curriculum Associates' then-current pricing, provided that the then-current pricing is no greater than 3% above the previous year's prices. If, at the time of renewal, the then-current pricing is greater than 3% above the previous year's prices, Curriculum Associates shall reduce the pricing to an amount equal to 3% above the previous year's prices.

2. A sentence is added to the end of Section V, Subsection A. Annual Appropriations (page 5), which reads as follows: Upon any termination for non-appropriation, payment will be made for products/services received prior to such termination.

3. Section V, Subsection F(2)(d). Termination by County (page 6) is reworded as follows: An equitable adjustment in the Contract price shall be made for unpaid services satisfactorily delivered before the date the Successful Offeror receives the notice of termination. The Successful Offeror shall not be entitled to payment for services rendered or goods delivered after the date the Successful Offeror receives notice of termination or for reimbursement for any cost the Successful Offeror incurs after the date the Successful Offeror receives the notice of termination.

4. A sentence is added to the end of Section V. Subsection B(3) (Award of Contract), which reads as follows: Notwithstanding the foregoing, Successful Offeror may assign the resulting Contract to the buyer of all or substantially all of Successful Offeror's assets.

5. Section V., Subsection M. Assignment of Contract (page 8) is reworded as follows: Successful Offeror may assign the Contract to the buyer of all or substantially all of Successful Offeror's assets. Successful Offeror does not need the County's prior written consent to an assignment in such case. However, as soon as reasonably practicable after the assignment is consummated, Successful Offeror will notify the County of the assignment. Successful Offeror will require any assignee to cooperate with the County in executing any amendment that the County may require to document and confirm the assignment.

6. A sentence is added to the end of Section V. General Contract Terms and Conditions Subsection D. Compensation (page 5), which reads as follows: For any of Successful Offeror's subscription-based products that are billed annually in advance, County shall be obligated to pay the annual subscription fee within forty-five (45) days after receipt of a proper invoice.

7. For purposes of Section V. Subsection G. Drug-Free Workplace to be Maintained by Contractor (page 7), Subsection V. Subcontracts, (page 10), and Subsection CC. Payment Clauses Required by Va. Code §2.2-4354 (page 12), "subcontractor" shall not include Successful Offeror's cloud hosting provider or vendors used in the ordinary course of business who perform technology and software development maintenance services under Successful Offeror's supervision on Successful Offeror's internal systems, unless such provider or vendor has been retained specifically to perform work under this Contract.

8. A sentence is added to the end of Section V. L. Testing and Inspection (page 8), which reads as follows: Any performance evaluation of Successful Offeror's services must be performed in accordance with the terms of use for *i-Ready,* and with reasonable cooperation and input from Successful Offeror.

9. In Section V. Subsection N. Indemnification (page 9), the word "third-party" is added in the third line after "any" and before "damages."

10. A new Section V. Subsection R.(4) Ownership of Deliverable and Related Products (pages 9-10) is added, which reads as follows: Successful Offeror's proprietary software solution, related digital products and services, and all intellectual property rights therein are owned solely and exclusively by Successful Offeror and, except for the licenses granted explicitly in the Contract, nothing in the Contract shall grant the County any right, title, and interest in or to the software solution or related services or training materials.

11. A sentence is added to the end of Section V. Subsection KK. Cooperative Procurement (pages 14-15), which reads as follows: Cooperative purchasing will only be permitted for entities purchasing the same products directly from Successful Offeror under the same terms and conditions and in the same quantities as included in the Contract between the County and Successful Offeror.

For good and valuable consideration, the parties also agree to modify Exhibit C, the Virginia School Data Privacy Agreement, which is incorporated by reference into the Contract, as follows:

1. The following shall apply to the interpretation of Exhibit C to the Data Privacy Agreement:

   For purposes of this Agreement and for the avoidance of doubt, "Division Data", "Pupil Records", "Student Data" or "Pupil Generated Content" does not include de-identified data, which refers to data generated from student usage of its products or services from which all personally identifiable information has been removed or obscured so that it does not identify individual students and there is no reasonable basis to believe that the information can be re-identified or otherwise used to identify individual students ("De-identified Data"). Provider maintains the perpetual right to use De- Identified Data for product development, product functionality and research purposes, as permitted under the Family Educational Rights and Privacy Act (FERPA).

2. The following language is stricken from Article IV. Section 4. Use of De-identified Information: "The Provider and Division agree that the Provider cannot successfully de-identify information if there are fewer than twenty (20) students in the samples of a particular field or category of information collected, i.e., twenty students in a particular grade, twenty students of a particular race, or twenty students with a particular disability." The following language is inserted in place of the deleted language: Curriculum Associates will comply with all terms and conditions of FERPA as it applies to use of de-identified data and will not use data that can be re-identified but cannot agree to a minimum number of records.

   The last sentence is reworded to read as follows: Provider agrees not to attempt to re-identify de-identified Division Data.

3. A new subsection 5(c) is added to the end of Article IV: Duties of Provider-Section 5. Disposition of Data, which reads as follows: Any disposition of Division data will not include data which may have been archived for disaster recovery purposes,

which data will be removed from Provider's backup servers over time, in accordance with Provider's company's data retention and destruction policies, consistent with standard industry practice. Any such archived Division data shall remain fully subject to the confidentiality obligations set forth in the Agreement. Additionally, Provider will provide written confirmation of destruction upon receipt of a written request from Division.

4. In Article V: Data Provisions Section 2. Unauthorized Access or Data Breach (a), "immediate" is deleted and replaced by "reasonably prompt."

5. In Article V: Data Provisions Section 2. Unauthorized Access or Data Breach (d), "may include toll free telephone support with informed customer services staff to address questions by affected parties and/or provide monitoring services if necessary given the nature and scope of the loss or disclosure" is deleted and replaced by "shall include reimbursing Division for all costs Division incurs in notifying affected parties of the breach."

6. For purposes of Article II: Data Ownership and Authorized Access- Section 5. Subprocessors (page 32) and Exhibit "C" Definitions "Subprocessor" (page 46), the parties agree that "subprocessor" shall not include Curriculum Associates' cloud hosting provider, and vendors used in the ordinary course of business who perform technology and software development and maintenance services under Curriculum Associates' supervision on Curriculum Associates' internal systems, unless such provider or vendor has been retained specifically to perform work under this Agreement.

REDACTED



Henrico County Public Schools

Literacy and Math Universal Screener and Progress Monitoring Software and Services for Grades K-8

RFP# 23-2481-1ARA

Due: March 8, 2023 at 10:00 AM

Submitted Online via eVA to:
Amy Anthes
Procurement Analyst III

Submitted by:
Curriculum Associates, LLC
153 Rangeway Road, North Billerica, MA 01862

Contact:
Erin Rush, Associate VP, Bids & Proposals
RFPs@cainc.com | 614-721-9573

Curriculum Associates®

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Tab I - Introduction and Signed Forms

Curriculum Associates®

March 7, 2023

Henrico County Public Schools
Attn: Ms. Amy Anthes Procurement Analyst III
8600 Staples Mill Road
Henrico, VA 23273-0775

RE: Literacy and Math Universal Screener and Progress Monitoring Software and Services for Grades K-8, RFP No. 23-2481-1ARA

Dear Ms. Amy Anthes:

Henrico County Public Schools (HCPS) is seeking a Literacy and Math Universal Screening and Progress Monitoring assessment tool for Kindergarten through eighth grade; as well as to offer assessment-informed Virginia Standards of Learning aligned mathematics practice. In addition, HCPS Questions and Answers released on February 24, 2023, indicate that the District is also happy to review reading practice resources. To uniquely meet these needs, Curriculum Associates, LLC (Curriculum Associates) proposes HCPS implement our proven-effective and award-winning ***i-Ready® Assessment*** and the cost-optional ***i-Ready Personalized Instruction*** **for mathematics and reading** practice that is directly informed by student results on *i-Ready Assessments.* This proposed fully web-based solution will support HCPS' vision to support success for all learners ensuring all students realize their right to achieve.

i-Ready first helps teachers pinpoint areas where students need instruction through *i-Ready Assessment's* suite of assessments, which are easy to administer, designed to engage students so that they do their best, and built to align with today's college- and career-ready standards. *i-Ready* assessments are also aligned to Virginia Standards of Learning (SOL) for English Language Arts and mathematics and include items similar to those students experience on the SOL Testing Program.

i-Ready Assessment comprises the adaptive *i-Ready Diagnostic* (K–12) along with multiple optional assessments included in the license fee at no additional cost: *Growth Monitoring* (K–8), Literacy Tasks (K-6), and *Standards Mastery* (2–8):

- *i-Ready Diagnostic* accurately and efficiently pinpoints students' needs and helps teachers better understand the root causes behind student challenges by dynamically adapting based on student response patterns. With *i-Ready Diagnostic*, large amounts of useful data are derived from a limited number of test items—helping educators assess less and know more.
- Using the adaptive *Growth Monitoring* assessments—which draw on the same item bank as the *Diagnostic*—teachers and administrators can monitor students' progress between *Diagnostic* administrations to determine if students are on track to meet annual growth targets.
- *i-Ready Literacy Tasks* are available for the assessment of Rapid Automatized Naming, Phonological Awareness, Letter Naming Fluency, Letter Sound Fluency, Word Recognition Fluency, Pseudoword Decoding Fluency, Passage Reading Fluency, and Spelling and Encoding skills.

- *Standards Mastery* provides flexible, user-controlled, fixed-form assessments that allow for targeted evaluation of specific Virginia Standards of Learning. This tool makes it easy to obtain regular formative and benchmark information on standards mastery as students progress throughout the year.

i-Ready also offers HCPS educators a comprehensive suite of intuitive, actionable reports that provide in-depth insight into individual strengths and learning gaps in the assessed reading and mathematics domains. Furthermore, *i-Ready's* vertical scale lets educators track student growth within and across years. The data- and graphic-rich reports present results in terms of placement levels, normed scores, and growth targets, making it easy for teachers and administrators to track student growth and performance throughout the year. *i-Ready's* assessment results provide robust instructional guidance (Can Dos and Next Steps) and link to point-of-use downloadable PDF instructional resources that offer targeted teaching strategies for each identified learning need.

Available for students performing at grade levels K–8, *i-Ready Personalized Instruction's* interactive lessons deliver a consistent best-practice lesson structure and build conceptual understanding, in addition to being engaging and relevant for diverse learners. For students in need of additional support or further challenge, lessons are prescribed to meet these needs (as identified by the *Diagnostic*). The classroom teacher can assign extra lessons to augment grade-level instruction in K–8 classrooms. *i-Ready Personalized Instruction* meets every child at their zone of proximal development. Lesson quizzes at the end of each online module allow teachers to regularly track student advancement toward grade-level expectations.

More than 11 million U.S. students are using *i-Ready*, including students at 27 Virginia districts (300 schools). Teachers are saving time and are administering instruction that is proven to make a difference. Students are engaged in their learning and feel empowered to contribute. At Curriculum Associates, we want to go beyond improving test scores—we want to inspire teachers to be intentional and purposeful in their planning through valid and reliable data and targeted, best-practice instructional resources that truly yield learning gains for diverse learners.

We are confident that our blended assessment and instruction solution—backed by our comprehensive professional development and support—will ensure HCPS students and staff receive the resources and support they need to succeed.

This proposal is valid until December 31, 2023. For additional information about our proposal or to arrange a presentation, please contact Erin Rush, Associate Vice President of Bids and Proposals, by phone at 614.721.9573 or by email at RFPs@cainc.com. On behalf of Curriculum Associates, thank you for your review and consideration of our submission.

Sincerely,



Emily McCann
Senior VP, Marketing
Curriculum Associates, LLC

ATTACHMENT A
PROPOSAL SIGNATURE SHEET

My signature certifies that the proposal as submitted complies with all requirements specified in this Request for Proposal ("RFP") No. 23-2481-1ARA Literacy and Math Universal Screener and Progress Monitoring Software

My signature also certifies that by submitting a proposal in response to this RFP, the Offeror represents that in the preparation and submission of this proposal, the Offeror did not, either directly or indirectly, enter into any combination or arrangement with any person or business entity, or enter into any agreement, participate in any collusion, or otherwise take any action in the restraining of free, competitive bidding in violation of the Sherman Act (15 U.S.C. Section 1) or Sections 59.1-9.1 through 59.1-9.17 or Sections 59.1-68.6 through 59.1-68.8 of the Code of Virginia.

I hereby certify that I am authorized to sign as a legal representative for the business entity submitting this proposal.

LEGAL NAME OF OFFEROR (DO NOT USE TRADE NAME):
Curriculum Associates, LLC
ADDRESS:
153 Rangeway Road, N. Billerica, MA 01862
FEDERAL ID NO: 26-3954988
SIGNATURE: 
NAME OF PERSON SIGNING (PRINT): Emily McCann
TITLE: VP, Educator Community, Policy, and Proposals
TELEPHONE: 800-225-0248
FAX: 800-366-1158
EMAIL ADDRESS: RFPs@cainc.com
DATE: 03/08/2023

ATTACHMENT B
BUSINESS CATEGORY CLASSIFICATION FORM

Company Legal Name: Curriculum Associates, LLC

This form completed by: Signature: _____ Title: VP, Educator Community, Policy, and Proposals

Date: 03/08/2023

PLEASE SPECIFY YOUR BUSINESS CATEGORY BY CHECKING THE APPROPRIATE BOX(ES) BELOW.

(Check all that apply.)

- ☐ **SMALL BUSINESS**
- ☐ **WOMEN-OWNED BUSINESS**
- ☐ **MINORITY-OWNED BUSINESS**
- ☐ **SERVICE-DISABLED VETERAN**
- ☐ **EMPLOYMENT SERVICES ORGANIZATION**
- ☑ **NON-SWaM (Not Small, Women-owned or Minority-owned)**

SUPPLIER REGISTRATION – The County of Henrico encourages all suppliers interested in doing business with the County to register with eVA, the Commonwealth of Virginia's electronic procurement portal, http://eva.virginia.gov.

eVA Registered? ☑ **Yes** ☐ **No**

If certified by the Virginia Minority Business Enterprises (DMBE), provide DMBE certification number and expiration date.

_____ **NUMBER** _____ **DATE**

DEFINITIONS

For the purpose of determining the appropriate business category, the following definitions apply:

"Small business" means a business, independently owned and controlled by one or more individuals who are U.S. citizens or legal resident aliens, and together with affiliates, has 250 or fewer employees, or annual gross receipts of $10 million or less averaged over the previous three years. One or more of the individual owners shall control both the management and daily business operations of the small business.

"Women-owned business" means a business that is at least 51 percent owned by one or more women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51 percent of the equity ownership interest is owned by one or more women who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more women.

"Minority-owned business" means a business that is at least 51 percent owned by one or more minority individuals who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51 percent of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is owned by one or more minority individuals who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more minority individuals.

"Minority individual" means an individual who is a citizen of the United States or a legal resident alien and who satisfies one or more of the following definitions:

1. "African American" means a person having origins in any of the original peoples of Africa and who is regarded as such by the community of which this person claims to be a part.

2. "Asian American" means a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands, including but not limited to Japan, China, Vietnam, Samoa, Laos, Cambodia, Taiwan, Northern Mariana Islands, the Philippines, a U.S. territory of the Pacific, India, Pakistan, Bangladesh, or Sri Lanka and who is regarded as such by the community of which this person claims to be a part.

3. "Hispanic American" means a person having origins in any of the Spanish-speaking peoples of Mexico, South or Central America, or the Caribbean Islands or other Spanish or Portuguese cultures and who is regarded as such by the community of which this person claims to be a part.

4. "Native American" means a person having origins in any of the original peoples of North America and who is regarded as such by the community of which this person claims to be a part or who is recognized by a tribal organization.

"Service disabled veteran business" means a business that is at least 51 percent owned by one or more service disabled veterans or, in the case of a corporation, partnership, or limited liability company or other entity, at least 51 percent of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is owned by one or more individuals who are service disabled veterans and both the management and daily business operations are controlled by one or more individuals who are service disabled veterans.

"Service disabled veteran" means a veteran who (i) served on active duty in the United States military ground, naval, or air service, (ii) was discharged or released under conditions other than dishonorable, and (iii) has a service-connected disability rating fixed by the United States Department of Veterans Affairs.

"Employment services organization" means an organization that provides community-based employment services to individuals with disabilities that is an approved Commission on Accreditation of Rehabilitation Facilities (CARF) accredited vendor of the Department of Aging and Rehabilitative Services.

ATTACHMENT C
Virginia State Corporation Commission (SCC)
Registration Information

The Offeror:

☒ is a corporation or other business entity with the following SCC identification number:
T0460222 **-OR-**

☐ is not a corporation, limited liability company, limited partnership, registered limited liability partnership, or business trust **-OR-**

☐ is an out-of-state business entity that does not regularly and continuously maintain as part of its ordinary and customary business any employees, agents, offices, facilities, or inventories in Virginia (not counting any employees or agents in Virginia who merely solicit orders that require acceptance outside Virginia before they become contracts, and not counting any incidental presence of the Bidder in Virginia that is needed in order to assemble, maintain, and repair goods in accordance with the contracts by which such goods were sold and shipped into Virginia from Bidder's out-of-state location) **-OR-**

☐ is an out-of-state business entity that is including with this bid/proposal an opinion of legal counsel which accurately and completely discloses the undersigned Bidder's current contracts with Virginia and describes why those contracts do not constitute the transaction of business in Virginia within the meaning of §13.1-757 or other similar provisions in Titles 13.1 or 50 of the Code of Virginia.

Please check the following box if you have not checked any of the foregoing options but currently have pending before the SCC an application for authority to transact business in the Commonwealth of Virginia and wish to be considered for a waiver to allow you to submit the SCC identification number after the due date for bids: ☐

ATTACHMENT D

PROPRIETARY/CONFIDENTIAL INFORMATION IDENTIFICATION

NAME OF OFFEROR: Curriculum Associates, LLC

Trade secrets or proprietary information submitted by an Offeror shall not be subject to public disclosure under the Virginia Freedom of Information Act; however, the Offeror must invoke the protections of Va. Code § 2.2-4342(F) in writing, either before or at the time the data or other materials are submitted. The Offeror must specifically identify the data or materials to be protected including the section(s) of the proposal in which it is contained and the pages numbers, and state the reasons why protection is necessary. A summary of trade secrets and proprietary information submitted shall be submitted on this form. The proprietary or trade secret material submitted must be identified by some distinct method such as highlighting or underlining and must indicate only the specific words, figures, or paragraphs that constitute trade secret or proprietary information. Va. Code § 2.2-4342(F) prohibits an Offeror from classifying an entire proposal, any portion of a proposal that does not contain trade secrets or proprietary information, line item prices, or total proposal prices as proprietary or trade secrets. If, after being given reasonable time, the Offeror refuses to withdraw such classification(s), the proposal will be rejected.

SECTION/TITLE	PAGE NUMBER(S)	REASON(S) FOR WITHHOLDING FROM DISCLOSURE
Tab 9 - Appendices, Appendix C - Voluntary Product Accessibility Template (VPAT)	194-208	This document contains confidential and proprietary information of Curriculum Associates.

ATTACHMENT F
DIRECT CONTACT WITH STUDENTS

Name of Offeror: Curriculum Associates, LLC

Pursuant to Va. Code § 22.1-296.1, as a condition of awarding a contract for the provision of services that require the contractor or employees of the contractor to have direct contact with students on school property during regular school hours or during school-sponsored activities, the contractor shall provide certification of whether any individual who will provide such services has been convicted of any violent felony set forth in the definition of barrier crime in subsection A of Va. Code § 19.2-392.02; any offense involving the sexual molestation, physical or sexual abuse, or rape of a child; or any crime of moral turpitude.

Any individual making a materially false statement regarding any such offense is guilty of a Class 1 misdemeanor and, upon conviction, the fact of such conviction is grounds for the revocation of the contract to provide such services and, when relevant, the revocation of any license required to provide such services.

As part of this submission, I certify the following:

□ ☒ **None of the individuals who will be providing services that require direct contact with students on school property during regular school hours or during school-sponsored activities have been convicted of a violent felony set forth in the definition of "barrier crime" in Va. Code § 19.2-392.02(A); an offense involving the sexual molestation, physical or sexual abuse, or rape of a child;**

And (select one of the following)

☒ **None of the individuals who will be providing services that require direct contact with students on school property during regular school hours or during school-sponsored activities have been convicted of any felony or any crime of moral turpitude.**

or

☐ **One or more individuals who will be providing services that require direct contact with students on school property during regular school hours or during school-sponsored activities has been convicted of a felony or crime of moral turpitude that is not set forth in the definition of "barrier crime" in Va. Code § 19.2-392.02(A) and does not involve the sexual molestation, physical or sexual abuse, or rape of a child. (In the case of a felony conviction meeting these criteria, the contractor must submit evidence that the Governor has restored the individual's civil rights.).**

Emily McCann

Signature of Authorized Representative

Emily McCann

Printed Name of Authorized Representative

Curriculum Associates, LLC

Printed Name of Vendor
(if different than Representative)

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

This Virginia School Data Privacy Agreement ("DPA") is entered into by and between the County School Board of Henrico County, Virginia (hereinafter referred to as "Division") and Curriculum Associates (hereinafter referred to as "Provider") on _____ The Parties agree to the terms as stated herein.

RECITALS

WHEREAS, the Provider has agreed to provide the Division with certain digital educational services ("Services") as described in Article I and Exhibit "A"; and

WHEREAS, in order to provide the Services described in Article 1 and Appendix A, the Provider may receive or create and the Division may provide documents or data that are covered by several federal statutes, among them, the Federal Educational Rights and Privacy Act ("FERPA") at 20 U.S.C. 1232g and 34 CFR Part 99, Children's Online Privacy Protection Act ("COPPA"), 15 U.S.C. 6501-6502; Protection of Pupil Rights Amendment ("PPRA") 20 U.S.C. 1232h; the Individuals with Disabilities Education Act ("IDEA"), 20 U.S.C. §§ 1400 et. seq.; and

WHEREAS, the documents and data transferred from Virginia Divisions and created by the Provider's Services are also subject to several Virginia student privacy laws, including Code of Virginia § 22.1-289.01. *School service providers; school-affiliated entities; student personal information*; and § 22.1-287.02. *Students' personally identifiable information*.

WHEREAS, the Parties wish to enter into this DPA to ensure that the Services provided conform to the requirements of the privacy laws referred to above and to establish implementing procedures and duties.

WHEREAS, the Provider may, by signing the "General Offer of Privacy Terms" (Exhibit "E"), agree to allow other Local Educational Agencies (LEAs) in Virginia the opportunity to accept and enjoy the benefits of this DPA for the Services described herein, without the need to negotiate terms in a separate DPA.

NOW THEREFORE, for good and valuable consideration, the parties agree as follows:

ARTICLE I: PURPOSE AND SCOPE

1. Purpose of DPA. The purpose of this DPA is to describe the duties and responsibilities to protect Division Data (as defined in Exhibit "C") transmitted to Provider from the Division pursuant to Exhibit "A", including compliance with all applicable state privacy statutes, including the FERPA, PPRA, COPPA, IDEA, and Code of Virginia § 22.1-289.01. School service providers; school-affiliated entities; student personal information; and § 22.1-287.02. Students' personally identifiable information. In performing these services, to the extent Personally Identifiable Information (as defined in Exhibit "C") from Pupil Records (as defined in Exhibit "C") are transmitted to Provider from Division, the Provider shall be considered a School Official with a legitimate educational interest, and performing services otherwise provided by the Division. Provider shall be under the direct control and supervision of the Division.

2. Nature of Services Provided. The Provider has agreed to provide the following digital educational services described below and as may be further outlined in Exhibit "A" hereto:

i-Ready Assessment and *Personalized Instruction* descriptions are outlined in Exhibit A.

3. **Division Data to Be Provided**. In order to perform the Services described in this Article and Exhibit "A", Provider shall list the categories of data collected, managed or shared as described below or as indicated in the Schedule of Data, attached hereto as Exhibit "B":

Data collection fields are provided in Exhibit B, Schedule of Data.

4. **DPA Definitions**. The definition of terms used in this DPA is found in Exhibit "C". In the event of a conflict, definitions used in this DPA shall prevail over terms used in all other writings, including, but not limited to, a service agreement, privacy policies or any terms of service.

ARTICLE II: DATA OWNERSHIP AND AUTHORIZED ACCESS

1. **Division Data Property of Division**. All Division Data, user generated content or any other Pupil Records transmitted to the Provider pursuant to this Agreement is and will continue to be the property of and under the control of the Division, or to the party who provided such data (such as the student, in the case of user generated content.). The Provider further acknowledges and agrees that all copies of such Division Data or any other Pupil Records transmitted to the Provider, including any modifications or additions or any portion thereof from any source, are also subject to the provisions of this Agreement in the same manner as the original Division Data or Pupil Records. The Parties agree that as between them, all rights, including all intellectual property rights in and to Division Data or any other Pupil Records contemplated per this Agreement shall remain the exclusive property of the Division. For the purposes of FERPA and state law, the Provider shall be considered a School Official, under the control and direction of the Divisions as it pertains to the use of Division Data notwithstanding the above. The Provider will cooperate and provide Division Data within ten (10) days at the Division's request. Provider may transfer pupil-generated content to a separate account, according to the procedures set forth below.

2. **Parent Access**. Provider shall cooperate and respond within ten (10) days to the Division's request for personally identifiable information in a pupil's records held by the Provider to view or correct as necessary. In the event that a parent of a pupil or other individual contacts the Provider to review any of the Pupil Records of Division Data accessed pursuant to the Services, the Provider shall refer the parent or individual to the Division, who will follow the necessary and proper procedures regarding the requested information.

3. **Separate Account**. Provider shall, at the request of the Division, transfer Student Generated Content to a separate student account when required by the Code of Virginia § 22.1-289.01. School service providers; school-affiliated entities.

4. **Third Party Request**. Provider shall notify the Division in advance of a compelled disclosure to a Third Party, unless legally prohibited.

5. **Subprocessors**. Provider shall enter into written agreements with all Subprocessors performing functions pursuant to this DPA, whereby the Subprocessors agree to protect Division Data in manner consistent with the terms of this DPA.

ARTICLE III: DUTIES OF DIVISION

1. **Privacy Compliance**. Division shall provide data for the purposes of the DPA and any related contract in compliance with the FERPA, PPRA, IDEA, Code of Virginia § 22.1-289.01. School service providers; school-affiliated entities; student personal information; and § 22.1-287.02. Students' personally identifiable information, and all other applicable Virginia statutes.

2. **Parent Notification of Rights** Division shall ensure that its annual notice under FERPA defines vendors, such as the Provider, as "School Officials" and what constitutes a legitimate educational interest. The Division will provide parents with a notice of the websites and online services under this agreement for which it has consented to student data collection to on behalf of the parent, as permitted under COPPA

3. **Unauthorized Access Notification**. Division shall notify Provider promptly of any known or suspected unauthorized access. Division will assist Provider in any efforts by Provider to investigate and respond to any unauthorized access.

ARTICLE IV: DUTIES OF PROVIDER

1) **Privacy Compliance**. The Provider shall comply with all Virginia and Federal laws and regulations pertaining to data privacy and security, including FERPA, COPPA, PPRA, Code of Virginia § 22.1-289.01. and § 22.1-287.02.

2) **Authorized Use**. Division Data shared pursuant to this DPA, including persistent unique identifiers, shall be used for no purpose other than the Services stated in this DPA and as authorized under the statutes referred to in subsection (1), above. Provider also acknowledges and agrees that it shall not make any re-disclosure of any Division Data or any portion thereof, including without limitation, any Division Data, metadata, user content or other non-public information and/or personally identifiable information contained in the Division Data, without the express written consent of the Division, unless it fits into the de-identified information exception in Article IV, Section 4, or there is a court order or lawfully issued subpoena for the information.

3) **Employee Obligations**. Provider shall require all employees and agents who have access to Division data to comply with all applicable provisions of this DPA with respect to the data shared under the Service Agreement.

4) **Use of De-identified Information**. De-identified information, as defined in Exhibit "C", may be used by the Provider for the purposes of development, research, and improvement of educational sites, services, or applications, as any other member of the public or party would be able to use de-identified data pursuant to 34 CFR 99.31(b). The Provider and Division agree that the Provider cannot successfully de-identify information if there are fewer than twenty (20) students in the samples of a particular field or category of information collected, i.e., twenty students in a particular grade, twenty students of a particular race, or twenty students with a particular disability. Provider agrees not to attempt to re-identify de-identified Division Data and not to transfer de-identified Division Data to any party unless (a) that party agrees in writing not to attempt re-identification, and (b) prior written

notice has been given to the Division who has provided prior written consent for such transfer.

5) **Disposition of Data**. Upon written request and in accordance with the applicable terms in subsections below, provider shalt dispose or delete all division data obtained under this agreement when it is no longer needed for the purposes for which it was obtained. Disposition will include (1) the shredding of any hard copies of any Division data, (2) erasing, or (3) otherwise modifying the personal information in those records to make it unreadable or indecipherable by human or digital means. Nothing in the service agreement authorizes provider to maintain Division data obtained under the service agreement beyond the time reasonably needed to complete the disposition. Provider shall provide written notification when the division data has been disposed. The duty to dispose of Division data shall not extend to data that has been de-identified or placed in a separate student account, pursuant to the terms of the agreement. The division may employ a request for return or deletion of Division data form, a copy of which is attached hereto as exhibit D. Upon receipt of a request from the division, the provider will immediately provide the division with any specified portion of the division data within ten (10) calendar days of the receipt of said request.

   a) **Partial Disposal During the Term of Service Agreement**. Throughout the term of the service agreement, Division may request partial disposal of Division data obtained under the service agreement that is no longer needed. Partial disposal of data shall be subject to Division's request to transfer data to a separate account, pursuant to Article II Section 3, above.

   b) **Complete Disposal upon Termination of Service Agreement**. Upon termination of the service agreement provider shall dispose or securly destroy all division data obtained under the service agreement. Prior to disposal of the data, provider shall notify Division in writing of it option to transfer data to a separate account, pursuant to Article 2, Section 3, above. In new event shelters provider dispose of data pursuant to this provision unless and until provider has received affirmative written confirmation from Division that data will not be transferred to a separate account.

6) **Advertising Prohibition**. Provider is prohibited from using or selling Division Data to (a) market or advertise to students or families/guardians; (b) inform, influence, or enable marketing or advertising efforts by a Provider; (c) develop a profile of a student, family member/guardian or group, for any commercial purpose other than providing the Service to Client; or (d) use the Division Data for the development of commercial products or services, other than as necessary to provide the Service to Client. This section does not prohibit Provider from generating legitimate personalized learning recommendations or other activities permitted under Code of Virginia § 22.1-289.01.

7) **Penalties.** The failure to comply with the requirements of this agreement could subject Provider and any third party to all allowable penalties assessable against Provider under state and federal law. In the event the Family Policy Compliance Office of the U.S. Department of Education determines that Provider improperly disclosed personally identifiable information obtained from the Division's education records, the Division may not allow Provider access to the Division's education records for at least five years.

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

ARTICLE V: DATA PROVISIONS

1. **Data Security**. The Provider agrees to maintain a comprehensive information security program that is reasonably designed to protect the security, privacy, confidentiality, and integrity of student personal information and makes use of appropriate administrative, technological, and physical safeguards. The general security duties of Provider are set forth below. These duties shall include, but are not limited to:

    a. **Passwords and Employee Access**. Provider shall secure and manage usernames, passwords, and any other means of gaining access to the Services or to Division Data, at levels suggested by NIST SP800-171 (Password complexity, encryption, and re-use) , NIST SP800-53 (IA control Family), and NIST 800-63-3 (Digital Identity), and NIST SP800-63B (Authenticator and Verifier Requirements) or equivalent industry best practices.

    b. **Security Protocols**. Both parties agree to maintain security protocols that meet industry best practices in the collection, storage or transmission of any data, including ensuring that data may only be viewed or accessed by parties legally allowed to do so. Provider shall maintain all data obtained or generated pursuant to the DPA in a secure computer environment.

    c. **Provider Employee Training**. The Provider shall provide annual security training to those of its employees who operate or have access to the system.

    d. **Security Technology**. When the service is accessed using a supported web browser, FIPS 140-2 validated transmission encryption protocols, or equivalent technology shall be employed to protect data from unauthorized access. The service security measures shall follow National Institute of Standards and Technology (NIST) 800-171, or equivalent industry best practices.

    e. **Periodic Risk Assessment**. Provider further acknowledges and agrees to conduct periodic risk assessments and remediate any identified security and privacy vulnerabilities in a timely manner. Upon Division's written request, Service Provider shall make the results of findings available to the Division. The Division shall treat such audit reports as Provider's Confidential Information under this Agreement.

    f. **Backups and Audit Trails, Data Authenticity and Integrity**. Provider will take reasonable measures, including all backups and audit trails, to protect Division Data against deterioration or degradation of data quality and authenticity. Provider shall be responsible for ensuring that Division Data is retrievable in a reasonable format.

    g. **Subprocessors Bound**. Provider shall enter into written agreements whereby Subprocessors agree to secure and protect Division Data in a manner consistent with the terms of this Article V. Provider shall periodically conduct or review compliance monitoring and assessments of Subprocessors to determine their compliance with this Article.

2. **Unauthorized Access or Data Breach**. In the event that Division Data are reasonably believed by the Provider or school division to have been disclosed (lost, accessed or obtained) in violation of the Family Educational Rights and Privacy Act (20 U.S.C. § 1232g) or other federal or state law

applicable to such information accessed or obtained by an unauthorized individual, Provider shall follow the following process:

a. provide immediate notification to Division upon verification of the incident and allow the Division or its authorized representatives to fully participate in the investigation of the incident.

b. notification will be provided to the contact(s) identified in ARTICLE VII, N: Notice, and sent via email and postal mail. Such notification shall include the

i. date, estimated date, or date range of the loss or disclosure;

i. Division Data that was or is reasonably believed to have been lost or disclosed;

ii. remedial measures taken or planned in response to the loss or disclosure.

c. immediately take action to prevent further access;

d. take all legally required, reasonable, and customary measures in working with Division to remediate the breach, which may include toll free telephone support with informed customer services staff to address questions by affected parties and/or provide monitoring services if necessary given the nature and scope of the loss or disclosure;

e. cooperate with Division efforts to communicate to affected parties.

f. provider is prohibited from directly contacting parent, legal guardian or eligible pupil unless expressly requested by Division. If Division requests Provider's assistance providing notice of unauthorized access, and such assistance is not unduly burdensome to Provider, Provider shall notify the affected parent, legal guardian or eligible pupil of the unauthorized access, which shall include the information listed in subsections (b) and (c), above. If requested by Division, Provider shall reimburse Division for costs incurred to notify parents/families of a breach not originating from Division's use of the Service.

g. the Provider shall indemnify and hold harmless the Division from and against any loss, claim, cost (including attorneys' fees) or damage of any nature arising from or in connection with the breach by the Provider or any of its officers, directors, employees, agents or representatives of the obligations of the Provider's or its Authorized Representatives under this provision or under a Confidentiality Agreement, as the case may be.

ARTICLE VI: GENERAL OFFER OF PRIVACY TERMS

The Provider may, by signing the attached Form of General Offer of Privacy Terms (General Offer attached hereto as Exhibit "E"), be bound by the terms of this DPA to any other Division who signs the acceptance in said Exhibit. The Form is limited by the terms and conditions described therein.

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT
ARTICLE VII: MISCELLANEOUS

A. Term. The Provider shall be bound by this DPA for so long as the Provider maintains or posesses any Division Data.

B. Termination. In the event that either party seeks to terminate this DPA, they may do so by mutual written consent and as long as any service agreement or terms of service, to the extent one exists, has lapsed or has been terminated. The Division may terminate this DPA and any service agreement or contract in the event of a material breach of the terms of this DPA.

C. Data Transfer Upon Termination or Expiration. Provider will notify the Division of impending cessation of its business and any contingency plans. Provider shall implement its exit plan and take all necessary actions to ensure a smooth transition of service with minimal disruption to the Division. As mutually agreed upon and as applicable, Provider will work closely with its successor to ensure asuccessful transition to the new equipment, with minimal downtime and effect on the Division, all such work to be coordinated and performed in advance of the formal, transition date.

D. Effect of Termination Survival. If the DPA is terminated, the Provider shall destroy all of Division's data pursuant to Article V, section 5(b). The Provider's obligations under this agreement shall survive termination of this Agreement until all Division Data has been returned or Securely Destroyed.

E. Priority of Agreements. This DPA supersedes all end user and "click-thru" agreements. In the event there is conflict between the terms of the DPA and any other writing, such as service agreement or with any other bid/RFP, terms of service, privacy policy, license agreement, or writing, the terms of this DPA shall apply and take precedence. Except as described in this paragraph herein, all other provisions of any other agreement shall remain in effect.

F. Amendments: This DPA may be amended and the observance of any provision of this DPA may be waived (either generally or in any particular instance and either retroactively or prospectively) only with the signed written consent of both parties

G. Severability. Any provision of this DPA that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions of this DPA, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. Notwithstanding the foregoing, if such provision could be more narrowly drawn so as not to be prohibited or unenforceable in such jurisdiction while, at the same time, maintaining the intent of the parties, it shall, as to such jurisdiction, be so narrowly drawn without invalidating the remaining provisions of this DPA or affecting the validity or enforceability of such provision in any other jurisdiction.

H. Governing Law; Venue and Jurisdiction. This agreement will be governed by and construed in accordance with the laws of the state of Virginia, without regard to conflicts of law principles. Each party consents and submits to the sole and exclusive jurisdiction to the state and federal courts for the county of the initial subscribing division or the division specified in exhibit E as applicable, for any dispute arising out of or relating to this agreement or the transactions contemplated hereby.

I. Authority. Provider represents that it is authorized to bind to the terms of this Agreement, including

confidentiality and destruction of Division Data and any portion thereof contained therein, all related or associated institutions, individuals, employees or contractors who may have access to the Division Data and/or any portion thereof, or may own, lease or control equipment or facilities of any kind where the Division Data and portion thereof stored, maintained or used in any way.

J. Waiver. No delay or omission of the Division to exercise any right hereunder shall be construed as a waiver of any such right and the Division reserves the right to exercise any such right from time to time, as often as may be deemed expedient.

K. Successors Bound: This DPA is and shall be binding upon the respective successors in interest to provider in the event of a merger, acquisition, consolidation or other business reorganization or sale of all or substantially all of the assets of such business.

L. Electronic Signature: The parties understand and agree that they have the right to execute this Agreement through paper or through electronic signature technology, which is in compliance with Virginia and Federal law governing electronic signatures. The parties agree that to the extent they sign electronically, their electronic signature is the legally binding equivalent to their handwritten signature. Whenever they execute an electronic signature, it has the same validity and meaning as their handwritten signature.

M. Notice. All notices or other communication required or permitted to be given hereunder must be in writing and given by personal delivery, facsimile or e-mail transmission (if contact information is provided for the specific mode of delivery), or first class mail, postage prepaid, sent to the designated representatives before:

a. Designated Representatives

The designated representative for the Provider for this Agreement is:

Name
Title:
Address:
eMail:
Phone:

The designated representative for the Division for this Agreement is:

Name: _____
Title: _____
Address: _____
eMail: _____
Phone: _____

b. Notification of Acceptance of General Offer of Terms. Upon execution of Exhibit E General Offer of Terms, subscribing Division shall provide notice of such acceptance in writing and given by personal delivery or email transmission (if contact information

is provided for the specific mode of delivery), or first-class mail, postage prepaid, to the designated representative below the designated representative for the notice of acceptance of the general offer of privacy terms is named title contact information.

Name: _____

Title: _____

Address: _____

eMail: _____

Phone: _____

[*Signature Page Follows*]

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

IN WITNESS WHEREOF, the parties have executed this Virginia Student Data Privacy Agreement as of the last day noted below.

Provider Signature

Date: _____

Printed Name: _____

Title: _____

Division Signature

Date: _____

Printed Name: _____

Title: _____

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

EXHIBIT "A"

DESCRIPTION OF SERVICES

[INSERT DETAILED DESCRIPTION OF PRODUCTS AND SERVICES HERE. IF MORE THAN ONE PRODUCT OR SERVICE IS INCLUDED, LIST EACH PRODUCT HERE]

i Ready Assessment (K–12) offers a proven valid and reliable data-driven instructional system for reading and mathematics. Aligned to the Standards of Learning, i Ready helps teachers pinpoint student's individual instructional needs through a suite of assessments that comprises the adaptive Diagnostic (K–12) and optional assessments : Growth Monitoring (K–8) and Standards Mastery (2–8). i-Ready then generates user-friendly reports that provide not only detailed domain- and skill-level data, but also recommendations for differentiated instruction. As a value-add, this includes Tools For Instruction—short, targeted resources for teacher-led differentiated instruction.

i-Ready Personalized Instruction (K–8)—available in the same, easy-to-use platform as i-Ready Assessment—is an online instructional supplemental and intervention resource for reading and mathematics, aligned to the Standards of Learning. Based on Diagnostic data, i-Ready Personalized Instruction builds a unique lesson plan consisting of online instructional lessons with a personalized starting point for every student, providing scaffolds along the way. As supported by internal and external research, i-Ready is an effective solution for all learners.

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

EXHIBIT "B"

SCHEDULE OF DATA

Category of Data	Elements	Check if used by your system
Application Technology Meta Data	IP Addresses of users, Use of cookies etc.	☑
	Other application technology meta data-Please specify:	
Application Use Statistics	Meta data on user interaction with application	☑
Assessment	Standardized test scores	☐
	Observation data	☐
	Other assessment data-Please specify:	☐
Attendance	Student school (daily) attendance data	☐
	Student class attendance data	☐
Communications	Online communications that are captured (emails, blog entries)	☐
Conduct	Conduct or behavioral data	☐
Demographics	Date of Birth	☑
	Place of Birth	☐
	Gender	☑
	Ethnicity or race	☑
	Language information (native, preferred or primary language spoken by student)	☑
	Other demographic information-Please specify:	☐
Enrollment	Student school enrollment	☑
	Student grade level	☑
	Homeroom	☐
	Guidance counselor	☐
	Specific curriculum programs	☐
	Year of graduation	☐
	Other enrollment information-Please specify:	☐
Parent/Guardian Contact Information	Address	☐
	Email	☐
	Phone	☐

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

Parent/ Guardian ID	Parent ID number (created to link parents to students)	☐
Parent/ Guardian Name	First and/or Last	☐
Schedule	Student scheduled courses	☐
	Teacher names	☑
Special Indicator	English language learner information	☑
	Low income status	☑
	Medical alerts /health data	☐
	Student disability information	☐
	Specialized education services (IEP or 504)	☑
	Living situations (homeless/ foster care)	☐
	Other indicator information- Please specify:	☑ migrant
Student Contact Information	Address	☐
	Email	☐
	Phone	☐
Student Identifiers	Local (School district) ID number	☐
	State ID number	☑
	Provider/App assigned student ID number	☑
	Student app username	☑
	Student app passwords	☑
Student Name	First and/or Last	☑
Student In App Performance	Program/application performance (typing program-student types 60 wpm, reading program-student reads below grade level)	☐
Student Program Membership	Academic or extracurricular activities a student may belong to or participate in	☐
Student Survey Responses	Student responses to surveys or questionnaires	☐
Student work	Student generated content; writing, pictures etc.	☐
	Other student	☐

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

	work data - Please specify:	☐
Transcript	Student course grades	☐
	Student course data	☐
	Student course grades/perfor-mance scores	☐
	Other transcript data -Please specify:	☐
Transportation	Student bus assignment	☐
	Student pick up and/or drop off location	☐
	Student bus card ID number	☐

	Other transportation data -Please specify:	☐
Other	Please list each additional data element used, stored or collected by your application	☐

No Student Data Collected at this time _____.
*Provider shall immediately notify LEA if this designation is no longer applicable.

OTHER: Use this box, if more space needed.

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

EXHIBIT "C"

DEFINITIONS

Data Breach means an event in which Division Data is exposed to unauthorized disclosure, access, alteration or use.

Division Data includes all business, employment, operational and Personally Identifiable Information that Division provides to Provider and that is not intentionally made generally available by the Division on public websites or publications, including but not limited to business, administrative and financial data, intellectual property, and student, employees, and personnel data, user generated content and metadata but specifically excludes Provider Data (as defined in the Contract).

De-Identifiable Information (DII): De-Identification refers to the process by which the Provider removes or obscures any Personally Identifiable Information ("PII") from student records in a way that removes or minimizes the risk of disclosure of the identity of the individual and information about them. Anonymization or de-identification should follow guidance equivalent to that provided by U.S Department of Education publication "Data De-identification: An Overview of Basic Terms" or NISTIR Special Publication (SP) 8053 De-Identification of Personally Identifiable Information. The Provider's specific steps to de-identify the data will depend on the circumstances, but should be appropriate to protect students. Some potential disclosure limitation methods are blurring, masking, and perturbation. De-identification should ensure that any information when put together cannot indirectly identify the student, not only from the viewpoint of the public, but also from the vantage of those who are familiar with the individual. Information cannot be de-identified if there are fewer than twenty (20) students in the samples of a particular field or category, i.e., twenty students in a particular grade or less than twenty students with a particular disability.

Indirect Identifiers: Any information that, either alone or in aggregate, would allow a reasonable person to be able to identify a student to a reasonable certainty

Personally Identifiable Information (PII): The terms "Personally Identifiable Information" or "PII" shall include, but are not limited to, student data, staff data, parent data, metadata, and user or pupil-generated content obtained by reason of the use of Provider's software, website, service, or app, including mobile apps, whether gathered by Provider or provided by Division or its users, students, or students' parents/guardians, including "directory information" as defined by §22.1-287.1 of the Code of Virginia".

PII includes, without limitation, at least the following:

- Staff, Student or Parent First, Middle and Last Name
- Staff, Student or Parent Telephone Number(s)
- Discipline Records
- Special Education Data
- Grades
- Criminal Records

- Health Records
- Biometric Information
- Socioeconomic Information
- Political Affiliations
- Text Messages
- Student Identifiers Photos
- Videos
- Grade
- Home Address Subject
- Email Address
- Test Results
- Juvenile Dependency Records Evaluations
- Medical Records
- Social Security Number
- Disabilities
- Food Purchases
- Religious Information Documents
- Search Activity
- Voice Recordings
- Date of Birth
- Classes
- Information in the Student's Educational Record
- Information in the Student's Email

Provider: For purposes of the DPA, the term "Provider" means provider of digital educational software or services, including cloud-based services, for the digital storage, management, and retrieval of pupil records.

Pupil Generated Content: The term "pupil-generated content" means materials or content created by a pupil during and for the purpose of education including, but not limited to, essays, research reports, portfolios, creative writing, music or other audio files, photographs, videos, and account information that enables ongoing ownership of pupil content.

Pupil Records: Means both of the following: (1) Any information that directly relates to a pupil that is maintained by Division and (2) any information acquired directly from the pupil through the use of instructional software or applications assigned to the pupil by a teacher or other local educational Division employee.

Securely Destroy: Securely Destroy: Securely Destroy means taking actions that render data written on physical (e.g., hardcopy, microfiche, etc.) or electronic media unrecoverable by both ordinary and extraordinary means. These actions must meet or exceed those sections of the National Institute of Standards of Technology (NIST) SP 800-88 Appendix A guidelines relevant to sanitization of data categorized as high security. All attempts to overwrite magnetic data for this purpose must utilize DOD approved methodologies.

School Official: For the purposes of this Agreement and pursuant to 34 CFR 99.31 (B), a School Official is a contractor that: (1) Performs an institutional service or function for which the agency or institution would otherwise use employees; (2) Is under the direct control of the agency or institution with respect to the use and maintenance of education

records; and (3) Is subject to 34 CFR 99.33(a) governing the use and re-disclosure of personally identifiable information from student records.

Student Data: Student Data includes any data, whether gathered by Provider or provided by Division or its users, students, or students' parents/guardians, that is descriptive of the student including, but not limited to, information in the student's educational record or email, first and last name, home address, telephone number, email address, or other information allowing online contact, discipline records, videos, test results, special education data, juvenile dependency records, grades, evaluations, criminal records, medical records, health records, social security numbers, biometric information, disabilities, socioeconomic information, food purchases, political affiliations, religious information text messages, documents, student identifies, search activity, photos, voice recordings or geolocation information.

Student Data shall constitute Pupil Records for the purposes of this Agreement, and for the purposes of Virginia and Federal laws and regulations. Student Data as specified in Exhibit B is confirmed to be collected or processed by the Provider pursuant to the Services. Student Data shall not constitute that information that has been anonymized or de-identified, or anonymous usage data regarding a student's use of Provider's services. Anonymization or de-identification should guidance equivalent to that provided by U.S Department of Education publication "Data De-identification: An Overview of Basic Terms" or NISTIR Special Publication (SP) 8053 De-Identification of Personally Identifiable Information.

Student Generated Content: Alternatively known as user-created content (UCC), is any form of content, such as images, videos, text and audio, that have been created and posted by student users on online platforms.

Subscribing Division: A Division that was not party to the original Services Agreement and who accepts the Provider's General Offer of Privacy Terms.

Subprocessor: For the purposes of this Agreement, the term "Subprocessor" (sometimes referred to as the "Subcontractor") means a party other than Division or Provider, who Provider uses for data collection, analytics, storage, or other service to operate and/or improve its software, and who has access to PII.

Third Party: The term "Third Party" means an entity that is not the Provider or Division.

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

EXHIBIT "D"

DIRECTIVE FOR DISPOSITION OF DATA

[Name or Division or Division] directs [Name of Company] to dispose of data obtained by Provider pursuant to the terms of the DPA between Division and Provider. The terms of the Disposition are set forth below:

1. Extent of Disposition

☐ Disposition is Complete. Disposition extends to all categories of data.

☐ Disposition is partial. The categories of data to be disposed of are set forth below or are found in an attachment to this Directive:

[Insert categories of data]

2. Nature of Disposition

☐ Disposition shall be by destruction or secure deletion of data.

☐ Disposition shall be by a transfer of data. The data shall be transferred to the following site as follows:

[Insert or attach special instructions.]

3. Timing of Disposition

Data shall be disposed of by the following date:

☐ As soon as commercially practicable

☐ By (Insert Date]

4. Signature of Authorized Representative of Division

BY:_____ Date: _____

Printed Name:_____ Title/Position:_____

5. Verification of Disposition of Data

BY:_____ Date: _____

Printed Name:_____ Title/Position:_____

VIRGINIA SCHOOL DATA PRIVACY AGREEMENT

OPTIONAL: EXHIBIT "E" GENERAL OFFER OF PRIVACY TERMS

1. Offer of Terms

Provider offers the same privacy protections found in this DPA between it and the Division to any other school division ("Subscribing Division") who accepts this General Offer though its signature below. The Provider agrees that the information on the next page will be replaced throughout the Agreement with the information specific to the Subscribing Division filled on the next page for the Subscribing Division. This General Offer shall extend only to privacy protections and Provider's signature shall not necessarily bind Provider to other terms, such as price, term, or schedule of services, or to any other provision not addressed in this DPA. The Provider and the Subscribing Division may also agree to change the data provided by Division to the Provider to suit the unique needs of the Subscribing Division. The Provider may withdraw the General Offer in the event of: (1) a material change in the applicable privacy statues; (2) a material change in the services and products subject listed in the Originating Service Agreement; or (3) after three years from the date of Provider's signature to this form. Provider shall notify the Division in the event of any withdrawal so that this information may be transmitted to the Subscribing Divisions.

BY:_____ Date: _____

Printed Name:_____ Title/Position:_____

2. Subscribing Division

A Subscribing Division, by signing a separate Service Agreement with Provider, and by its signature below, accepts the General Offer of Privacy Terms. The Subscribing Division's individual information is contained on the next page. The Subscribing Division and the Provider shall therefore be bound by the same terms of this DPA.

BY:_____ Date:_____

Printed Name:_____ Title/Position_____

TO ACCEPT THE GENERAL OFFER THE SUBSCRIBING DIVISION MUST DELIVER THIS SIGNED EXHIBIT TO THE PERSON AND EMAIL ADDRESS LISTED BELOW

BY:_____ Date: _____

Printed Name:_____ Title/Position:_____

Email Address_____

Attachment I

Pricing Scenario

Provide pricing for the scenario below based off pricing being offered on Attachment I. Offerors must provide pricing and the methodology of how the price was calculated.

Name of Offeror: Curriculum Associates, LLC	**Name Of Program:** i-Ready	
Scenario		
Provide pricing for an annual subscription for district licenses as listed below:	**Price**	**Methodology on how price was calculated**
46 Elementary School (K-5) – the number of students per grade is: KG – 3551 Gr. 1 – 3526 Gr. 2 – 3668 Gr. 3 – 3586 Gr. 4 – 3576 Gr. 5 - 3640	$ 249,945.20	21,547 students at cost of $5.80/student for 1 year i-Ready Assessment Math and $5.80/student for 1 year i-Ready Assessment Reading. List price of each i-Ready Assessment license is $7.25. 20% volume discount applied to i-Ready per student based on scope. Please see quote 315405.3 for more details, including options for purchasing site licenses of i-Ready Assessment and Personalized Instruction Math and Reading. 2023-2024 pricing only at this price. Subsequent renewals will be at then-current pricing.
12 Middle Schools (6-8) – the number of students per grade is: Gr. 6 – 3700 Gr. 7 – 3840 Gr. 8 – 3952	$ 133,307.20	11,492 students at cost of $5.80/student for 1 year for i-Ready Assessment Math and $5.80/student for 1 year i-Ready Assessment Reading. List price of each i-Ready Assessment license is $7.25. 20% volume discount applied to i-Ready per student based on scope. Please see quote 315405.3 for more details, including options for purchasing 1 year site licenses of i-Ready Assessment and Personalized Instruction Math and Reading. 2023-2024 pricing only at this price. Subsequent renewals will be at then-current pricing.
Provide pricing for 1 day (6 hours) of on-site professional development training for staff of 25 for above. (2 days at 61 schools for a total of $183,000 for a purchase of iReady Assessment licenses)	$ 1,500 ($183,000)	2023-2024 pricing only at this price. Subsequent renewals will be at then-current pricing for professional development. Please see quotes 315405.2-315405.5 for more details on full professional development proposals based on scope of purchase.
Grand Total	$ 566,252.40	Total calculated upon purchase of 33,039 i-Ready Assessment Math 1 year licenses and 33,039 i-Ready Assessment Reading 1 year licenses, as well as 61 days of professional development. Please see quotes 315405.2 -315405.5 for more details including options for purchasing 1 year site licenses of i-Ready Assessment and Personalized Instruction Math, Math and Reading, plus corresponding professional development suites for each option.
Price per student	$11.60	$5.80/student for 1 year i-Ready Assessment Math and $5.80/student for 1 year i-Ready Assessment Reading. 20% volume discount applied to i-Ready per student based on scope of purchase.

Attachment J

Pricing Options

Provide pricing as it relates to the proposed solution	Price
Price per Student Price based on 1 year of i-Ready Assessment per student per subject.	$ 7.25
Price per Teacher i-Ready is sold as either per student or site license.	$ -
Price per Classroom i-Ready is sold as either per student or site license.	$ -
Price per Site 2023-2024 pricing only at this price for 1 year i-Ready Assessment and Personalized Instruction Math OR Reading site licenses. Subsequent renewals will be at then-current pricing. Please see quote 315405.4 & .5 for 1-subject sites and 315405.2 for 2-subject sites.	$ <200 $4,560 801-1200 $16,800 201-350 $7,790 1201+ $18,790 351-500 $11,100 501-800 $13,060 *1-subject site license list pricing for 1Y, less applicable discounts.
Price for District License K-5 Price based on 21,547 students at cost of $5.80/student for 1 year i-Ready Assessment Math and $5.80/student for 1 year i-Ready Assessment Reading. See quote 315405.3 for more details.	$ 249,945.20
Price for District License K-8 Price based on 33,039 students at cost of $5.80/student for 1 year i-Ready Assessment Math and $5.80/student for 1 year i-Ready Assessment Reading. See quote 315405.3 for more details.	$ 383,252.40
Price for District License 6-8 Price based on 11,492 students at cost of $5.80/student for 1 year i-Ready Assessment Math and $5.80/student for 1 year i-Ready Assessment Reading. See quote 315405.3 for more details.	$ 133,307.20
Above pricing is based on cost of i-Ready Assessment Math 1 Year and i-Ready Assessment Reading 1 Year. Please see quote 315405.2 for cost option of purchasing i-Ready Assessment and Personalized Instruction Math and Reading 1 Year per site and 315405.4-.5 for cost option of purchasing i-Ready Assessment and Personalized Instruction 1 Year for either Math or Reading.	
1 day of Professional Development- train the trainer model (20 Elementary or Secondary Coaches, 5 Educational Specialist, + 1 additional personnel- total of 20 +) IN PERSON	$
1 day of Professional Development- train the trainer model (20 Elementary or Secondary Coaches, 5 Educational Specialist, + 1 additional personnel- total of 20 +) VIRTUAL	$
1 day of Professional Development - price per teacher IN PERSON Professional Development is sold at a cost per session (virtual and in-person).	$ -
1 day of Professional Development - price per teacher VIRTUAL Professional Development is sold at a cost per session (virtual and in-person).	$ -
1 day of Professional Development for Elementary or Secondary School Staff- approximately 35 – 100 IN PERSON 2023-2024 pricing only at this price. Subsequent renewals will be at then-current pricing for professional development. Please see quotes 315405.2-315405.5 for more details on full professional development proposals based on scope of purchase.	$ 1,500
1 day of Professional Development for Elementary or Secondary School Staff- approximately 35 – 100 VIRTUAL	$ 1,500
2023-2024 pricing only at this price. Subsequent renewals will be at then-current pricing for professional development. Please see quotes 315405.2-315405.5 for more details on full professional development proposals based on scope of purchase.	

Tab 2 – Statement of the Scope

In this tab, Offerors, in concise terms, shall state their understanding of the Scope of Services requested by this RFP in Section II.

Curriculum Associates understanding of the Scope of Services requested in Section II

Henrico County Public Schools (HCPS) seeks to provide a Literacy and Math Universal Screening and Progress Monitoring assessment tool for kindergarten through eighth grade; as well as to offer assessment-informed Virginia Standards of Learning aligned mathematics practice. In addition, HCPS Questions and Answers released on February 24, 2023 indicate that the District is also happy to review reading practice resources. To uniquely meet these needs, Curriculum Associates, LLC (Curriculum Associates) proposes HCPS implement our proven-effective and award-winning *i-Ready® Assessment* and to consider the option of implementing *i-Ready Personalized Instruction* for mathematics and reading practice that is directly informed by student results on *i-Ready Assessments.* Aligned with the Virginia's Standards of Learning (SOL) for English Language Arts (ELA) and mathematics, *i-Ready* prepares students for college- and career-ready expectations. We provide correlations of *i-Ready Diagnostic* to the Virginia SOL for reading and mathematics in **Appendix D** and correlations of *i-Ready Personalized Instruction* for reading and mathematics to the Virginia SOLs in **Appendix E**.

i-Ready Diagnostic provides a proven valid and reliable web-based adaptive screening and assessment tool to diagnose student needs and learning opportunities overall and down to the subskill level. Available for reading and mathematics, *i-Ready* is designed to support differentiated instruction with a combination of assessment tied directly to instructional resources—both teacher-led and online. *i-Ready* assesses and teaches the foundational skills of phonological awareness, phonics, and high-frequency words; as well as mathematics concepts and skills that are fully aligned with the Virginia SOL for math. This powerful solution helps HCPS teachers better understand the root causes behind student challenges and offers the instructional tools to meet students' identified learning needs.

i-Ready Diagnostic derives large amounts of information from a limited number of test items, allowing a more accurate and efficient pinpoint of students' needs. The *Diagnostic* adapts across grade levels K–12 so that students experience both success and challenge, thereby maximizing their engagement, encouraging their best effort on the assessment, and yielding a targeted prescription for instruction.

The *i-Ready* license fee also includes *Growth Monitoring* (K–8), *Standards Mastery* (2–8) assessments and *Literacy Tasks* (K–6). These optional-to-implement progress monitoring tools allow educators to monitoring student growth and performance on grade-level standards.

i-Ready Personalized Instruction, available as an option for students performing at grade levels K–8, embeds engaging multimedia instruction and progress monitoring into every online lesson. Lessons provide a consistent best-practice lesson structure and build conceptual understanding, in addition to being fun and enriching for learners of all levels.

i-Ready's reporting platform offers real-time insight as to why students are struggling to tracking their response to instruction and progress toward mastery of grade-level standards. All data is presented in actionable, easy-to-read reports available to teachers as soon as students complete an activity in the program and include instructional recommendations and strategies to help meet students' needs.

Results from multiple independent reviews and research studies demonstrate the reliability and validity of *i-Ready*. *i-Ready* received high ratings from The National Center on Intensive Intervention (NCII) in all three categories that NCII reviews: Academic Screening tool, Academic Progress Monitoring tool, and Academic Intervention. *i-Ready* is backed by the most practical and applicable efficacy research in education. *i-Ready Personalized Instruction*—the system of personalized lessons designed to fill students' knowledge gaps and help every student reach grade-level proficiency—has been studied by numerous third-party and independent organizations, as well as Curriculum Associates' own Research team, in partnership with educators throughout the country. A summary of *i-Ready* efficacy studies, including independent and third-party research, is available at https://www.curriculumassociates.com/research-and-efficacy .

Our solution also includes onsite professional development, a dedicated Partner Success Manager, and 24/7 resources to support HCPS educators in using *i-Ready*'s easy to administer and user-friendly assessments and real-time reporting to drive the differentiation of instruction in reading and mathematics for students in grades K–8.

Tab 3 – Offeror Qualifications and Experience

In this tab, Offerors should demonstrate the Offeror's, and their staff's, qualifications and experience in providing the services as requested in this Request for Proposal. Offerors shall provide resumes of staff and the local representative who would be assigned to this contract if awarded. Offerors should provide, at a minimum, documentation demonstrating that they are regularly engaged in providing screening and progress monitoring software, implementation, and services for no less than three (3) years. If subcontractors are to be utilized, provide similar documentation to what has been requested of the Offeror in this section.

Curriculum Associates and Staff Qualifications and Experience

Curriculum Associates has the experience and capability to effectively implement our proposed *i-Ready Assessment* screening and progress monitoring software solution, while providing the option of HCPS also implementing *i-Ready Personalized Instruction* for mathematics and reading practice. Our implementation and support services for HCPS will help prepare students for college- and career-ready expectations.

Staying true to our mission and values has allowed us to expand our reach and impact. **Today we work with more than 800,000 educators to serve more than 12.5 million students across all 50 states as well as internationally**. With more than 2,100 highly trained staff members, Curriculum Associates is headquartered in Massachusetts, with satellite offices in Arizona, New York, North Carolina, and Texas—plus local representation in Virginia and nationwide.

Since our founding by a team of educators half a century ago, Curriculum Associates has produced research-based and classroom-proven programs focused on helping educators effectively address the diverse needs of their students. Our impact on classrooms is expanding—not just in our growing number of users, but more importantly in the learning gains these students are seeing.

Our proposed screening and progress monitoring solution has a proven track record. M**ore than 11 million students, or about 33 percent of K–8 students in the United States, use *i-Ready Assessment*.** Educators are seeing remarkable year-over-year gains and expanding program use. Information about our programs' research and efficacy information is available online at https://www.curriculumassociates.com/research-and-efficacy.

We believe our program renewal rate is the best indicator of overall satisfaction with our software and texts, representing our clients' experience with product quality and efficacy, ease of use, and satisfaction with our service. **Our renewal rate for all customers in 2021 was 93 percent**.

Our company is big enough to offer the quality resources to back our products, but focused enough to ensure a level of attention of which we can continue to be proud—and that the educators we serve say really works for them.

Our corporate focus on customer service requires a keen understanding of the needs of the educators and students we serve. This focus allows us to invest heavily in product development and to respond rapidly to changes in education.

In addition to the proposed *i-Ready Assessment* and (optional) *Personalized Instruction* for mathematics and reading practice solutions, we are sole-source publishers and providers of *i-Ready Classroom Mathematics*; *Ready* as well as *Magnetic Reading* for reading/English language arts, the interventional *Phonics for Reading* program; and the BRIGANCE® Series for Early Childhood and Special Education. For a full product listing, please refer to our website: www.curriculumassociates.com.

Staff Qualifications and Experience

Curriculum Associates' strong commitment to customer service begins with our top-notch employees. We provide all new and veteran personnel with a robust training regimen, spanning research and development, implementation/case studies, advancing technologies, feature releases, best practices and project management, internal process and customer support, and the foundational corporate mission and vision.

Training and professional development for our employees is ongoing. Our associates have unlimited access to recorded webinars and training videos posted online. Online training begins with New Hire On-Boarding modules—a sampling of which includes *FERPA Training*, *Diving Deeper into i-Ready*, and *Diving Deeper into Ready*. Product and industry training is provided on an ongoing basis to keep staff members up-to-date on our research base, professional development offerings, and assessment and instructional enhancements (online courses include *Assessment Workshop*, *i-Ready K–2 Updates*, *Talking Research*).

Further, all employees are encouraged to attend regular live webinars and frequently can participate in "lunch and learns" and other interactive knowledge-sharing events. These training activities ensure all personnel have the most current product knowledge and are fully equipped to serve our customers. Most importantly, Curriculum Associates promotes a collaborative, team environment in which employees are encouraged to share experience and expertise within and across departments.

Summary Biographies of our Proposed Core Project Team for Henrico County Public Schools

Henrico County Public Schools' assessment and progress monitoring implementation will be supported by a team equipped to provide local onsite support, as well as a team based in our Massachusetts headquarters. Curriculum Associates offers full-time, non-outsourced support, and dedicated Partner Success Managers to ensure a consistent level of service for our clients.

For this important initiative, we will appoint **Jackie Davis** as Partner Success Manager. Jackie will be supported by our implementation, professional development, technical, and customer service staffs. Our proposed project team for HCPS is well-qualified to ensure a successful implementation. Summary biographies for the project team are included below; and full resumes are provided in **Appendix I**.

Depending on the final scope and timing of the implementation, the following personnel may provide direct support or service to the District for this contract, or manage their respective teams in providing direct support or service.

Partner Success Management and Regional Support

Jackie Davis | Partner Success Manager

Education: M.A.Ed., Educational Leadership and Policy Studies | Ed.S, Instructional Design, Virginia Tech
B.S., Elementary Education, Manhattan College

Jackie Davis will be the main point of contact for the District, coordinating and scheduling the contract and providing direct support to educators.

Jackie brings her collective nine-year experience as a certified third- and fourth-grade elementary teacher, Title 1 Math Specialist, and district-level Instructional Coach in Virginia, as well as several years as an Educational Consultant at Curriculum Associates, to her current role. In this role, she will work with HCPS leaders to provide support and suggestions for implementation, review data, and support teachers with login issues. She has experience working with several other Virginia districts in this capacity, including Shenandoah County, Isle of Wight, Petersburg, Clarke, Carroll, and Frederick County.

Kristin Scannell | Regional Manager, Partner Success

Education: M.E., Curriculum and Instruction in Elementary Education, University of Nevada at Las Vegas;
B.S., Business Administration in Marketing, University of Colorado at Boulder

Kristin's manages a group of talented Partner Success representatives. She is passionate about helping to ensure educators experience success with *i-Ready* as well as coaching new and experienced team members into becoming strategic and innovative contributors who excel at identifying user needs and coordinating professional development, customer service, or technical support as needed, and will provide consultative services to schools throughout implementation.

Kristin, who joined Curriculum Associates in 2017, provides oversight of project management for school- and district-wide product implementations. She ensures educators are proficient in using *i-Ready* and other Curriculum Associates programs by overseeing the process by which educators' concerns are addressed; ensuring any issues are resolved in a timely manner. She will also provide any customer feedback on program improvement to our internal product development and technology teams.

Kristin has experience as Director of Staffing for a network of charter schools and as a program manager for an early literacy initiative. She also served as a Senior Program Manager at Jumpstart for Young Children for four years, after beginning her career as an elementary educator.

Andrea Fischer | Associate Director, Partner Success Management

Education: M.A., Educational Administration and Supervision, University of Colorado Denver;
B.S., Elementary Education, State University of New York at Oneonta

Andrea's role as Associate Director, Partner Success Management is well-informed by her extensive experience as a Curriculum Associates Professional Development Manager, and her work supporting schools across Virginia. Andrea joined the Curriculum Associates team in 2015 from Alliance for Curriculum Enhancement (ACE), where she served as the Executive Director. During her time at ACE, Andrea delivered professional development courses on Common Core, SBAC Information, Unit and Assessment Design, Instructional Practices, Professional Learning Communities, and Data Analysis. Prior to her work at ACE, Andrea was the Director of Curriculum and Assessment at Laurel Public Schools in Montana. She has also served as a principal and a classroom teacher.

Steven McBride | Educational Sales Consultant

Education: M.S., Biology, Marshall University, Huntington, WV,
B.A., Secondary Education, Biology and General Science, Marshall University, Huntington, WV

Steven has served as an Educational Consultant (Sales Representative) at curriculum associates since 2015. He provides support for teachers and administrators for all K–12 schools and school districts in both VA and WV that are implementing our programs. After listening to educators and gaining an understanding of needs he provides guidance on how a partnership with Curriculum Associates can meet those needs. Steven 41 years of experience in Education as a teacher, Director of School Improvement for the West Virginia Department of Education, and as consultant for six educational publishing companies to his role as an Educational Sales Consultant at Curriculum Associates.

Lori Chaney | Director of Sales, Mid-Atlantic Region

Education: M.Ed., Instructional Technology, Troy State University;
M.A., Special Education, Ball State University;
B.A., Elementary Education, Michigan State University

Lori will support Steven McBride and HCPS with customer product sales and services. Starting with Curriculum Associates in 2021, she has more than 10 years of sales success in the EdTech and core space. Most recently, Lori held the position of VP of Sales at Creative Learning Systems. Before that, she served as regional sales manager for Great Minds, where she led a team of account executives representing Eureka and Wit & Wisdom. She has extensive experience throughout the Mid-Atlantic, landing district-wide partnerships in Baltimore City, Montgomery, and Washington, D.C. Lori began her career as a teacher, going on to teach in six different school districts (including Guam and Japan) in her 20 years in the classroom. She was named teacher of the year in Virginia's Region 3 and was the recipient of the Agnes Myer Award for Outstanding Teacher given by The Washington Post.

Our experienced team adheres to the philosophy that all children should have an opportunity to succeed in school while engaging in their own achievement and enjoying the learning process. To that end, the company is steadfastly committed to educational research, fostering innovation, and hiring and retaining high-caliber people—making classrooms better places for teachers and students.

Professional Development

Harold Saunders | Professional Development Specialist

Education: M.Ed., Administration and Supervision, Virginia Polytechnic and State University;
B.A., Marketing Education, Virginia Commonwealth University

Harold joined Curriculum Associates in 2021. He currently works with school divisions to provide professional development tailored to the school's needs to support the implementation of *i-Ready* and *Ready Classroom Mathematics*. Harold has a deep understanding of school needs because of his previous work experience as a teacher, school and central office administrator. He was also a Director of Professional Development which allows him to listen and discern the needs of school and central office personnel and to turn that into value-added professional development.

Heidi Wallace | Professional Development Specialist

Education: M.Ed., School Leadership, Harvard Graduate School of Education;
M.A, Teaching: Early Childhood Education, Georgia State University
B.A., Political Science, Virginia Tech

As a Virginia educator and former school administrator, Heidi is always excited to bring her expertise and perspective to new districts while keeping in mind the unique contexts and needs of Virginia schools. She joined Curriculum Associates in 2021 and has worked in many Virginia schools and districts, including: Fairfax County Public Schools, Richmond City Schools, Spotsylvania County Schools, Suffolk Public Schools, Hampton City Schools and Prince William County Schools. In her role as a Professional Development Specialist, Heidi facilitates, adapts, and delivers professional development to various audiences on how to effectively implement *Ready* and *i-Ready* to impact classroom learning. She provides on-site targeted support to teachers, coaches and leaders – this may range from providing lesson planning and pacing support, to helping educators analyze data and apply it to instruction, to working with leaders to identify evidence of implementation successes and challenges. She works to engage district and school leaders in consultative conversations about data, student achievement, and how to use *i-Ready* data to prioritize support for students.

Robert Walnock | Senior Manager, Professional Development

Education: M.Ed., Education Leadership, George Mason University;
B.S., Education, University of Delaware

As the Mid-Atlantic Professional Development (PD) Manager, Rob's role is to manage the entire PD team who delivers ongoing training and implementation support for all Curriculum Associates programs to the Mid-Atlantic region. He will support HCPS by delivering leadership training and providing insight on the health of the District's implementation.

Rob started working with Curriculum Associates in 2017, bringing more than 15 years of experience in education. During his career, he has served as a classroom teacher in upper elementary grade levels, as an Instructional Coach, and as a Math Specialist, all within Title I environments. He was nominated as Teacher of the Year within Fairfax County Public Schools in 2008. After his time working in schools, Rob began work as a Senior Curriculum Designer, creating an award-winning Pre-K Mathematics program. Most recently, Rob has been using his talents as a PD Manager with Curriculum Associates, presenting many workshops focused around *i-Ready*. He enjoys working side-by side with districts and schools to enhance student success.

Shannon Gaumer | Associate Vice President, Professional Development

Education: M.S., Educational Technology, Azusa Pacific University;
B.S., Elementary Education, Bloomsburg University;
CLAD Certificate, University of California, Los Angeles

Shannon manages all *i-Ready* professional learning support in the Northeast; delivers training and onsite support related to *i-Ready* solutions; conducts internal professional development for new hires; and schedules day-to-day team members working with district and school leaders to coordinate training, initial planning, and ongoing support. She will ensure that HCPS's professional development needs are met and schedule appropriate consultants to work with the District. Shannon joined Curriculum Associates in 2016 from Discovery, Inc. (formerly Discovery Communications), where she served in a variety of roles over a span of ten years: Education Field Manager, Independent Consultant, and International Director of Professional Development. She will provide additional training support, as needed, for this District program.

Implementation Services, Customer Service, Technical Support, and Technical Operations Leadership Team

Maria LoRusso | Vice President, Program Implementation

Education: M.A., Educational Administration and Supervision, Pace University;
M.A., Teaching, Pace University;
B.A., History, Boston College

Maria will provide hands-on leadership of HCPS's account and program implementation. She will work in close concert with Jackie Davis your Lead Partner Success Manager, to support HCPS. In addition to supervising the Partner Success Management team, she will serve as the next tier for escalation if HCPS has a question or implementation challenge. Maria may also supplement our Professional Development team by conducting training and support via onsite visits or webinars.

Maria brings a rich background to her role in working with our clients. Before coming to Curriculum Associates in 2011, she designed and developed workshops and video-based training for implementation of NWEA products as the National NWEA Manager for Teach for America (TFA). In her time at TFA, she also served as a program director and curriculum specialist—where she gained experience in standards-based curriculum design and alignment, as well as the development of formative and curriculum-embedded performance assessments. In both positions at TFA, Maria supported effective teaching practices in the classroom through modeling and group practice sessions, then providing observation and feedback on classroom teachers.

Maria also possesses extensive classroom experience, teaching history, global studies, and government. She taught a variety of student populations, including general, bilingual, ELLs and Special Education, and is well-versed in culturally proficient and anti-bias education.

Scott Colaw | Vice President of Service Operations

Education: B.S., Systems Science and Engineering with a focus on Business and Information Systems, University of Pennsylvania

Scott Colaw will oversee our Technical Support team to ensure responsive, speedy resolution to any technical inquiries from HCPS He brings with him more than five years of experience in his current role at Curriculum Associates. Scott provides executive-level support and direction for our Technical Support & Provisioning Data Services teams, who respond to and work on all aspects of our clients' technology experience. He leads technical services and support teams to manage user technology experience, including: Tier 1: Technical Support to provide front-line technical triage and remediation of customer issues; Tier 2: Technical Support to provide senior-level application support and network engineering; and Tier 3: Sales Engineer to provide customer technical health checks, pre-sales technical reviews and technical training.

Scott supervises the Provisioning Data Services team for automated provisioning accounts, supporting technical aspects of customer account provisioning, custom data exports and reporting, and single sign-on. He coordinates activities with Development & Operations teams to ensure timely reporting, prioritization and resolution of system defects as identified by customers.

Prior to taking a leadership role at our company, Scott had more than 14 years of experience directing information technology/technical operations services at organizations that included Houghton-Mifflin

Company and AKIBIA. His career has spanned more than 30 years in technology, program management, business development, and strategic planning.

Sandy Batista | Vice President, Warehouse Operations & Customer Service

Education: B.S., Business Administration, Southern New Hampshire University;
A.S., Information Technology, Southern New Hampshire University;
Logistics Degree Program, Community College of the Air Force

Sandy oversees Curriculum Associates' customer service team as they support HCPS. She has more than 10 years' experience in her current role at Curriculum Associates and seven years as a Customer Service Manager at the company prior to that. Among her many roles, Sandy helps to ensure workflow efficiencies, customer service excellence, and quality assurance. Prior to her work at Curriculum Associates, Sandy had more than 12 collective years of experience in corporate positions that prepared her for her current focus, including Director of Quality Control at Triumph Learning and Director roles in Operations and IT as well as Production at Options Publishing. She served in the United States Air Force for 10 years.

Kamal Chavda | Vice President, Custom Data & Analytics

Education: Ph.D., Public Administration, Rutgers University;
M.P.A., Public Administration, Rutgers University;
B.A., Political Science and Biology, Luther College

Kamal leads a team of Curriculum Associates' experts to provide actionable data and insights, as needed, to districts implementing *i-Ready*. He works to improve the scope and scale of services offered by the company by providing data-driven consulting and analytical services, including robust, informative analyses to districts based on student assessment data; and consultation and advice to educators on the interpretation and application of data to inform their instructional strategies and to help them meet their educational objectives. He also serves as a thought-partner and consultant to schools and districts as they make decisions based on information derived from *i-Ready* assessments and instruction.

Prior to working at Curriculum Associates, Kamal was Chief Data and Accountability Officer at Boston Public Schools (BPS), where he directed research and evaluation to support continuous improvement; enhanced data access and use while maintaining data security; and served as a member of the Superintendent's Cabinet. Prior to that role, he was Assistant Superintendent of Research, Assessment and Evaluation at BPS.

Additionally, Kamal has worked in various capacities within the education field: Assistant Director, Survey Research Center, and Lecturer in Political Science at the University of New Hampshire; Research Evaluator at Memphis City Schools; Adjunct Lecturer for East Carolina University; Teaching Assistant and Dissertation Fellow at Rutgers University, and a Research Associate at The National Center for Public Productivity (Rutgers University). Kamal is fluent in French, Gujarati, and Hindi.

Tuan Pallie | Vice President, Engineering Operations

Education: B.A., Mathematics and Computer Science, Clark University

Tuan joined Curriculum Associates in 2022 as the Vice President of Engineering Operations. In this role, Tuan leads cloud enablement, containerization, infrastructure automation, and deployment automation; orchestrates efforts to enable a continuous integration and continuous improvement (CI/CD) pipeline; provides guidance on system options as needed in strategic planning discussions; develops and builds technology solutions designed to scale and align with the DevOps model; and collaborates with both software engineers and infrastructure to manage code release.

Tuan has more than 20 years of experience as a software technology leader with a successful record of accomplishments in building and leading highly technical hybrid teams on high-profile projects from design to delivery. Some of his prior leadership experience includes Director-level roles at Enservio, Epsilon, SimpliVity Corporation, SessionM, and Gopuff.

Tuan looks forward to providing HCPS with a resilient and high availability platform that students and teachers can be excited to consume.

We believe the foundation of our success is four-fold: quality products, engagement of learners, superior customer service, and proven professional development. Henrico County Public Schools has our commitment that we will bring this winning formula to our support of the assessment and progress monitoring implementation for reading and math.

Resumes of staff and local representatives

Please see **Appendix I** for full resumes of proposed core project team members for HCPS.

Utilization of subcontractors

Curriculum Associates does not intend to utilize subcontractors to perform the scope of services included in this Request for Proposals, if awarded.

Tab 4 – References

In this tab, Offerors should include a minimum of three (3) references from public school systems in Virginia or in other states, where the Offeror has provided services similar to the services being solicited in this Request for Proposal. The information provided should include a contact person's name, position, up-to-date telephone number and email address, the school system for which the contract person worked, and the time period of the services performed.

The following references can attest to quality of Curriculum Associates products and services. In addition to the references provided here, please also see the Case Studies on our website at https://www.curriculumassociates.com/resources/case-studies.

Fairfax County Schools	
Customer Name	Dr. Brandon Robertson
Customer Title	Testing Administration Specialist
Customer Address	8115 Gatehouse Road Falls Church, VA 22042
Customer Telephone Number	(571) 423-3000
Customer Email Address	bhrobertson@fcps.edu
Description of Services	*i-Ready Assessment* for reading and mathematics, grades 1–6 ~ 82,000 students, *i-Ready Personalized Instruction* for reading and mathematics, grades 1–6 ~ , and ongoing Professional Development
Implementation Year	2018 to present
Total Number of Student Users	82,166

Spotsylvania County Schools	
Customer Name	Rhonda Fischer
Customer Title	Curriculum Coordinator
Customer Address	8020 River Stone Drive, Fredericksburg, VA
Customer Telephone Number	(540) 834-2500
Customer Email Address	rfischer@spotsylvania.k12.va.us,
Description of Services	*i-Ready Assessment and Personalized Instruction* for mathematics, *Teacher Toolbox*, and Professional Development
Implementation Year	2021 to present
Total Number of Student Users	15,300

Page County Schools	
Customer Name	Clint Ruyan
Customer Title	Director of Secondary Instruction/Division Director of Testing
Customer Address	735 West Main Street, Luray, VA 22835
Customer Telephone Number	(540) 743-6533
Customer Email Address	crunyan@pagecounty.k12.va.us
Description of Services	*i-Ready Assessment and Personalized Instruction* for mathematics and the *Teacher Toolbox* for grades 6–9, as well as Professional Development
Implementation Year	2018 to Present
Total Number of Student Users	1,404

Suffolk County Schools	
Customer Name	Okema Branch
Customer Title	Chief Academic Officer
Customer Address	100 N. Main Street, Suffolk, VA 23434
Customer Telephone Number	(757) 925-6750
Customer Email Address	okemabranch@spsk12.net
Description of Services	*i-Ready Assessment and Personalized Instruction* for mathematics and reading, as well as *Teacher Toolbox* and ongoing Professional Development
Implementation Year	2020 to Present
Total Number of Student Users	5,904

Alexandria City Schools, Lyles Crouch Traditional Academy	
Customer Name	Dr. Patricia Zissios
Customer Title	Principal, Lyles Crouch Traditional Academy
Customer Address	530 S Saint Asaph St., Alexandria, VA 22314
Customer Telephone Number	(703) 706-4430
Customer Email Address	patricia.zissios@acps.k12.va.us
Description of Services	*i-Ready Assessment and Personalized Instruction* for mathematics and reading, as well as Professional Development, grades K–5
Implementation Year	2021 to Present
Total Number of Student Users	400

Tab 5 – Project Approach and Implementation of Services

In this tab, Offerors should demonstrate their knowledge and understanding of the scope of work requested in this Request for Proposal as demonstrated in Section II, Items A through D (which includes completing Appendix A). Offerors should provide, in detail, their approach to fulfilling the scope of services being solicited by this Request for Proposal and demonstrate their compliance with the requirements of the Scope of Services. Offerors shall provide, at a minimum, the following information:

a. a timeline for implementation and training.

b. describe the development process related to alignment, item writing content review, and quality control, and the process used to ensure alignment assessment of items to the Virginia Standards of Learning for content and rigor.

c. describe, in detail, their professional development training to support effective use of the assessment data, in-house training for new employees, training on updates and upgrades to the system.

d. describe a sandbox environment for HCPS for testing new ideas and questions that doesn't affect reporting and current functionality.

Project Approach: *i-Ready Assessment* with *Personalized Instruction* (Option) for Mathematics and Reading

Curriculum Associates proposes *i-Ready Assessment* be used as a K–8 reading and math universal screening and progress monitoring assessment tool for all students in Henrico County Public Schools; and that *i-Ready Personalized Instruction* for mathematics and reading be considered as a cost option for providing math and reading practice.

Introducing *i-Ready Assessment and Personalized Instruction*

A Connected Learning System for Assessment and Instruction

Designed and developed to meet the rigor of today's college- and career-ready standards, Curriculum Associates' award-winning ***i-Ready Assessment and Personalized Instruction*** for reading and mathematics combines a valid and reliable assessment suite with instructional resources targeted to each child's specific academic needs. Decision-making at the student, group, class, school, and district levels is explicitly driven by comprehensive, actionable reports—helping educators *assess less and know more*.

***i-Ready* makes the promise of differentiated instruction a practical reality for teachers and students**. Our research-based, classroom-proven program was designed to get students excited about learning, and to support teachers in the challenge of meeting the needs of all learners. Through the power of one intuitive system whose pieces were built from the ground up to work together, teachers have the tools they need to ensure students are on the road to proficiency.



We designed *i-Ready* not only to meet the *skills* outlined in the standards, but also their *intent*. *i-Ready* mitigates the challenges of what's next (and how much of it is required) to meet each student's unique needs—whether their performance is below-grade, on-grade, or above-grade. The program helps teachers efficiently and effectively provide targeted instruction to help each student reach their academic potential and monitors how students are progressing in reading and mathematics over time.

The overarching design principles of the *i-Ready* program are that:

- Learning is a continuous cycle of assessment linked to instruction—assessment results should inform student placement decisions, offer explicit instructional advice, and prescribe resources for targeted instruction and intervention.
- Assessment should be streamlined, directly tied to actionable data, and offer multiple options on one platform to reduce the burden on teachers—thereby resulting in less testing time and more actionable data.
- Multiple instructional paths—teacher-led, student-driven, online, print-based—should be driven from valid and reliable reports that be accessed from a single data source to drive efficiencies in the classroom.

As supported by internal and external research, *i-Ready* is an effective solution for all learners. Tour *i-Ready* online at https://www.curriculumassociates.com/products/*i-Ready*/tour, where narrated program overviews, sample reports and lessons, research, client success stories, and customer testimonials are all available for review.

i-Ready Assessment: Data to Inform Instruction

The core component of *i-Ready Assessment* is ***i-Ready Diagnostic*** (K–12), a computer-adaptive assessment that provides a deep, customized evaluation of every student and tracks student growth and performance consistently and continuously over a student's entire K–12 career. By dynamically adapting based on student response patterns, *i-Ready Diagnostic* derives large amounts of information from a limited number of test items. This allows the *Diagnostic* to more accurately and efficiently pinpoint students' needs and helps teachers better understand the root causes behind student challenges. This is especially beneficial for identifying gaps spanning back multiple years, determining where students are ready for further challenge, and providing differentiated instruction.

While the data are important, what is most critical to improving student learning outcomes is that those numbers directly and explicitly support effective instruction. *i-Ready Diagnostic* provides intuitive reports that track student progress toward mastery of the standards and explicitly inform instructional decision-making. The *Diagnostic's* ability to adapt across grade levels means that students experience both success and challenge, thereby maximizing their engagement, encouraging their best effort on the assessment, and yielding the most targeted prescription for instruction.

For mathematics, *i-Ready Diagnostic* is available in Spanish for grades K–12, based on a careful transadaptation of each item using a rigorous process recommended by the International Test Commission. Students being assessed in Spanish have the same testing experience as students being assessed in English, and teachers are provided with the same powerful reports they receive from the *Diagnostic* in English.

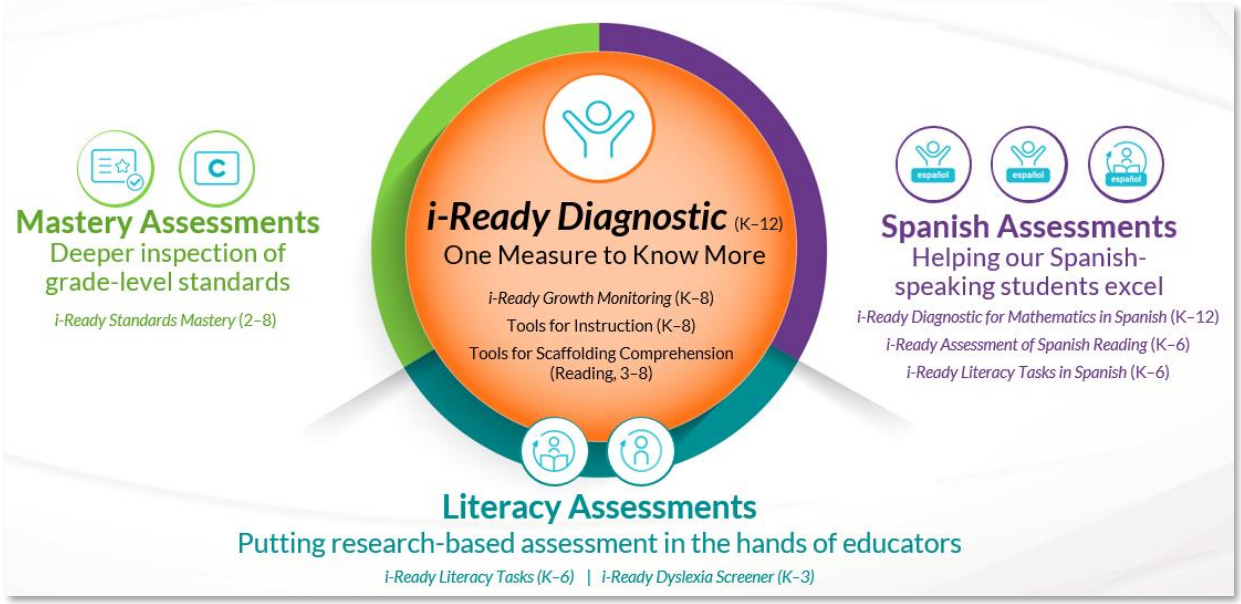


Figure 1. *i-Ready Assessment* offers multiple forms of assessment and progress monitoring.

The *i-Ready Assessment* platform includes additional assessment, progress monitoring, and instructional resources (Figure 1)—as well as a robust management and reporting suite. The following are included with the *i-Ready Assessment* license fee, but are optional to administer:

- Computer-adaptive ***i-Ready Growth Monitoring*** for grades K–8 is a general outcome measure form of progress monitoring. Intended to be used to project whether students are on track for appropriate growth, *Growth Monitoring* can be used as a tool for Multi-Tiered System of Supports (MTSS) and Response to Intervention (RTI) for students who are performing below level. *Growth Monitoring* is intended to be used monthly.

- Fixed-form ***i-Ready Standards Mastery*** for grades 2–8 is a mastery measurement form of progress monitoring ideal for determining student understanding of each on-grade-level standard before, during, or after instruction. These fixed-form, quick assessments focus on measuring how well students have mastered the material and identifying potential misconceptions that require targeted instruction. *Standards Mastery* can also be used as unit assessments tailored to the District's scope and sequence or a tool to support MTSS and RTI.
- Fixed-form ***i-Ready Assessment of Spanish Reading*** for grades K–6 is a digital assessment of a student's reading proficiency in Spanish. The program features original and authentic Spanish content developed by native Spanish speakers—content is not transadapted or translated. *i-Ready Assessment of Spanish Reading* can be used to support Spanish-speaking English Learners and Spanish Learners.
- ***i-Ready Literacy Tasks*** provide information on how a student is performing in phonological awareness, encoding, and fluency-related reading skills. Used as a complement to *i-Ready Diagnostic*, these tasks help provide a comprehensive snapshot of a student's overall reading performance. Districts can choose to have teachers use *Literacy Tasks* as part of their benchmark or progress monitoring assessment processes. *Literacy Tasks* are available for grades K–6, although not all tasks are available at all grades and times of year.
- Available for students performing at grades K–8, **Tools for Instruction** are short, targeted resources for teacher-led instruction that are tied directly to students' skills gaps and needs. Tools for Instruction are also available in Spanish for mathematics (K–8) and reading (K–6).
- Comprising both teacher- and student-facing materials, **Tools for Scaffolding Comprehension** help educators teach the most critical skills for grade-level reading instruction and position students to participate in grade-level content. Tools for Scaffolding Comprehension are designed for students performing at grades 3–8.

i-Ready Personalized Instruction (Optional): Engaging Instruction with Proven Results

Based on *Diagnostic* performance, ***i-Ready Personalized Instruction*** builds a unique lesson plan consisting of online instruction, with a personalized starting point for every student. *Personalized Instruction*, offered for students who need instruction at grade levels K–8, is aligned to the college- and career-ready standards, and embeds engaging multimedia instruction and progress monitoring into each online lesson. Lessons provide a consistent best-practice lesson structure and build conceptual understanding, in addition to being engaging and fun.

i-Ready Personalized Instruction:

- Taps into the *Diagnostic's* rich data to deliver individual learning paths to growth for each student, balancing rigor and reachability.
- Meets learners at their level, helps them problem solve, and keeps them motivated to continue their progress.
- Provides digital instruction that is proven to drive gains for students and is backed by evidence for ESSA.



Explicit instruction throughout *Personalized Instruction* is systematic, clear, and precise. Topics are carefully sequenced and broken down into small, constituent parts and taught individually. This process involves explanation, demonstration, and practice in a structured environment.

i-Ready Personalized Instruction lessons are centered on interdisciplinary topics that immediately draw students in and keep them engaged. Relevant, real-world scenarios, examples, and themes help diverse learners build connections between the skills they are learning and their personal experiences both inside and outside the classroom. The result of this targeted and engaging instruction is that students quickly learn the foundational skills required to move up to grade level or beyond.

i-Ready Personalized Instruction for reading and mathematics has earned the Research-Based Design Product Certification from Digital Promise. This rigorous certification is only earned by educational technology products with a demonstrable research base and proven research. Curriculum Associates submitted evidence to Digital Promise confirming a link between research on how students learn and the design of *i-Ready*. For more information, see https://productcertifications.digitalpromise.org/certified-products.

> **"*i-Ready* is the best supplemental learning program I have ever used. My students' scores have soared since we added *i-Ready* to their reading and math instruction. My students and I love it and couldn't imagine being without it."**
> **—Educator and *i-Ready* User**

Thousands of Schools and Districts Use *i-Ready*

We have provided *i-Ready* to thousands of urban, suburban, and rural school districts across the U.S. (Figure 2). Currently, more than 11 million students across the country use *i-Ready*—**approximately 33 percent of the nation's K–8 public school students**. As of the 2021–2022 school year, more than 4,200 school districts and more than 31,500 schools have purchased the program.

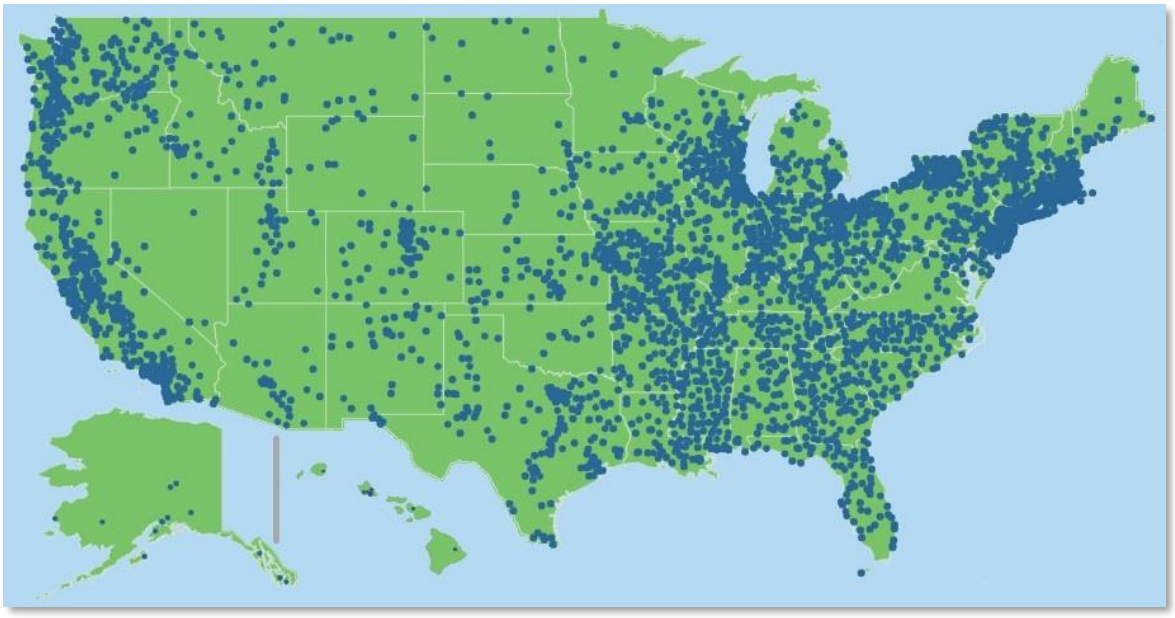


Figure 2. Thousands of districts across the nation are using *i-Ready*.

Curriculum Associates released *i-Ready* in the summer of 2011. Since then, *i-Ready* has been reviewed and approved at the state level as an assessment, instructional resource, or intervention in Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Indiana, Iowa, Massachusetts, Michigan, Mississippi, Nebraska, Nevada, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Utah, **Virginia**, and Washington.

As *i-Ready* has for other clients, we are confident *i-Ready* will yield measurable improvements for Henrico County Public Schools.

Supporting Educators through Partnership

In tandem with our dedication to designing and developing high-quality assessment and instructional programs that drive measurable student achievement, what truly differentiates us is our commitment to being the best service provider in the publishing industry. We employ nearly four times as many service staff as sales representatives, and more than 40 percent of our employees are involved in service roles. Based on available data, this percentage is double the industry average—underscoring the importance we place on superior service and support.

Beginning with the first contact with Curriculum Associates through setting up and implementing the program, our staff will be here to ensure success in the District. HCPS will be served by *i-Ready Partners*, a connected and experienced group of professionals focused on meeting the needs of educators, students, and communities (Figure 3). *i-Ready Partners* offers:

- A dedicated Partner Success Management team to work alongside educators for consultation and day-to-day needs and support.
- Professional development to help educators get the most out of *i-Ready* data and instruction.
- Education consultants to provide strategic guidance driven by program design and pedagogy expertise.
- Periodic placement and progress analyses with ongoing analytic support to empower data-driven practices in classrooms.
- Responsive technical support and proactive issue identification that anticipates and heads off issues before they start.



Figure 3. *i-Ready Partners* is a dedicated support and service team that helps educators build data-driven classrooms and achieve real growth.

With Curriculum Associates, Henrico County Public Schools will have a partner who understands that real change and student growth that move the needle on achievement do not happen through magic. It takes carefully planned hard work, day after day. Our team becomes your partner in that work, doing our part to help **HCPS** teachers, and in turn their students, succeed.

Knowledge and Understanding of the Scope of Work

Section II A. General Requirements

1. Directly assesses early literacy skills. Assessment is to be used with students who are performing below, at, or above current grade level. These assessments shall assess a range of skills across and beyond the grade level, be in accordance with Virginia's Standards of Learning, and must allow assessment of foundational skills for all grade levels.

i-Ready Assessment directly assesses early literacy skills for students in grades K–12 who are performing below, at, or above grade level in reading through the use of its ***Diagnostic*** and ***Literacy Tasks*** components. *i-Ready* assessments are aligned to the Virginia Standards of Learning (SOL) and *Diagnostic* assessment reports provide insights into student mastery of the SOL's for reading. Please see **Appendix D** for correlations of the *i-Ready Diagnostic* to the Virginia SOL's for reading.

***i-Ready Assessment* allows for the assessment of foundational skills for all grade levels**. *i-Ready Diagnostic* starts students at an estimated difficulty level based on their chronological grade level. As a student answers questions correctly or incorrectly, the test adjusts up or down, with questions of varying difficulty, until the assessment reaches the level of difficulty that is "just right" for each student and pinpoints which skills have been mastered and which need additional work (Figure 4).

For example, a student may be performing on grade level with comprehension of literary text, but performing below grade level for comprehension of informational text. The depth of the item bank enables the *Diagnostic* to truly pinpoint a student's performance and ensures the accuracy of results.

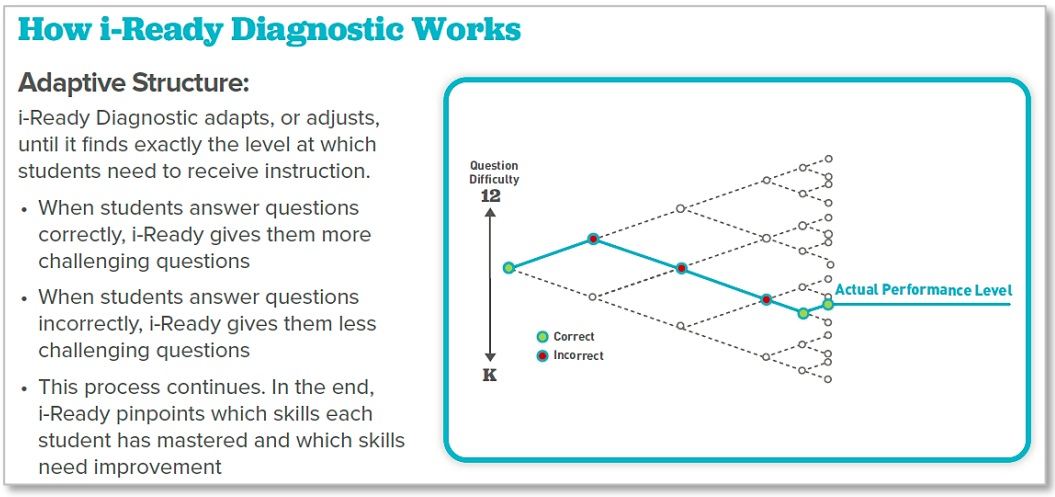


Figure 4. By adapting to student responses and assessing a broad range of skills—including skills above and below a student's chronological grade—the *Diagnostic* pinpoints a student's performance level.

The *Diagnostic's* adaptive algorithm automatically selects from thousands of items to get to the core of each student's strengths and challenges. The reading assessments include multiple-choice items and technology-enhanced items that include multimedia, highlight text, and drag-and-drop items with various templates meant to emulate filling in a table or filling in the blanks in a sentence. Assessment content includes multimedia passages with embedded audio, video, imagery, and animation.

A continuum of scale scores from kindergarten through high school offers powerful longitudinal data by tracking student progress within and across years—essential to evaluating program efficacy, differentiating instruction, and supporting learners in reaching their potential.

i-Ready Literacy Tasks provide information on how a student is performing in phonological awareness, encoding, and fluency-related reading skills. Used as a complement to *i-Ready Diagnostic*, these tasks help provide a comprehensive snapshot of a student's overall reading performance. Districts can choose to have teachers use *Literacy Tasks* as part of their benchmark or progress monitoring assessment processes. *Literacy Tasks* are available for grades K–6, based on the appropriateness of measuring the literacy skill at specific grade levels; therefore, not all tasks are available at all grades and times of year.

1a. Early literacy assessment measures skills in the five essential components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension.

i-Ready Diagnostic for reading combined with *i-Ready Literacy Tasks* measure the five essential components of reading (also referred to as the five pillars of reading)—phonological awareness, phonics, fluency, vocabulary, and comprehension—as well as high-frequency words (Table 1).

Table 1. *i-Ready* Assesses Essential Components of Reading

Component	*i-Ready Diagnostic*	*i-Ready Literacy Tasks*
Phonemic/Phonological Awareness	All K–1 and some grade 2 students	Phonological Awareness, including: • Syllables (K–1+) • Onset-Rime (K–1+) • Phoneme Blending (K–1+) • Phoneme Segmentation (K–1+) • Phoneme Segmentation Fluency (K–1+) • Phoneme Manipulation (K–2+)
Phonics	All K–2 and some students at grade 3 and above	• Letter Sound Fluency (K–2+) • Pseudoword Decoding Fluency (Benchmark: K–3; Progress Monitoring: K–1) • Word Recognition Fluency (Benchmark: K–3; Progress Monitoring: K–1) • Spelling/Encoding (Benchmark: 1–3)
Fluency	N/A	• Phoneme Segmentation Fluency (K–1+) • Letter Naming Fluency (Benchmark: K–2+) • Letter Sound Fluency (K–2+) • Word Recognition Fluency (Benchmark: K–3; Progress Monitoring: K–1)

Table 1. *i-Ready* Assesses Essential Components of Reading		
Component	***i-Ready Diagnostic***	***i-Ready Literacy Tasks***
		• Pseudoword Decoding Fluency (Benchmark: K–3; Progress Monitoring: K–1) • Passage Reading Fluency (1–6)
Vocabulary	All students, K–12	N/A
Comprehension	All students, K–12	N/A
High-Frequency Words	All K–2 and some students at grade 3 and above	• Word Recognition Fluency (Benchmark: K–3; Progress Monitoring: K–1)

1b. Early Literacy provides information to the teacher regarding the next steps for instruction.

Teacher-Led Differentiated Instruction

i-Ready's comprehensive reports synthesize enormous amounts of data, assisting teachers in truly differentiating instruction and providing each student what they need to progress to the next level. Following are examples of some of the resources that can help teachers differentiate instruction.

- The **Virginia Standards Performance** report provides standard-by-standard analysis that details student performance against the SOL and sub-skills/against Virginia standards.
- The ***Diagnostic* Results** student report includes a list of what the student "Can Do" as well as specific Next Steps and Resources for Instruction—the next skills in a developmental progression that students need to master.
- Teachers use the **Instructional Groupings** report to bring together students who need support with similar skills, to understand exactly which skills they need to develop, and for guidance in how to address those shared instructional needs. This report lists the number and names of students in each instructional grouping; students' overall and domain-level placements; and provides recommended instructional resources for each group.
- Both the *Diagnostic* Results and the Instructional Groupings reports include downloadable **Tools for Instruction** (available for students performing at grades K–8). These educator-facing, downloadable PDF resources provide step-by-step lesson plans, complete with background on the targeted skill, a variety of ways to approach teaching or reinforcing the skill, and how to identify and remedy common student misconceptions. (See page 52 for more details)
- **Tools for Scaffolding Comprehension** (reading) for grades 3–8 help teachers teach the most critical skills for grade-level reading instruction and position students to participate in grade-level content. Rather than beginning the year with reteaching full lessons, Tools for Scaffolding Comprehension help educators target and efficiently teach the most important concepts and skills (See page 56 for more details).

The Virginia Standards Performance report provides educators with a standard-by-standard analysis that details student performance against the SOLs. The report shown in is at the student level; it is also available at the class level (Figure 5).

The green check marks signify likely understanding of the skill aligned to the standard, and the grey check marks signify only some understanding (or only partial alignment of the skill to the standard). A standard with an X means that the student has not demonstrated sufficient understanding of the skill.

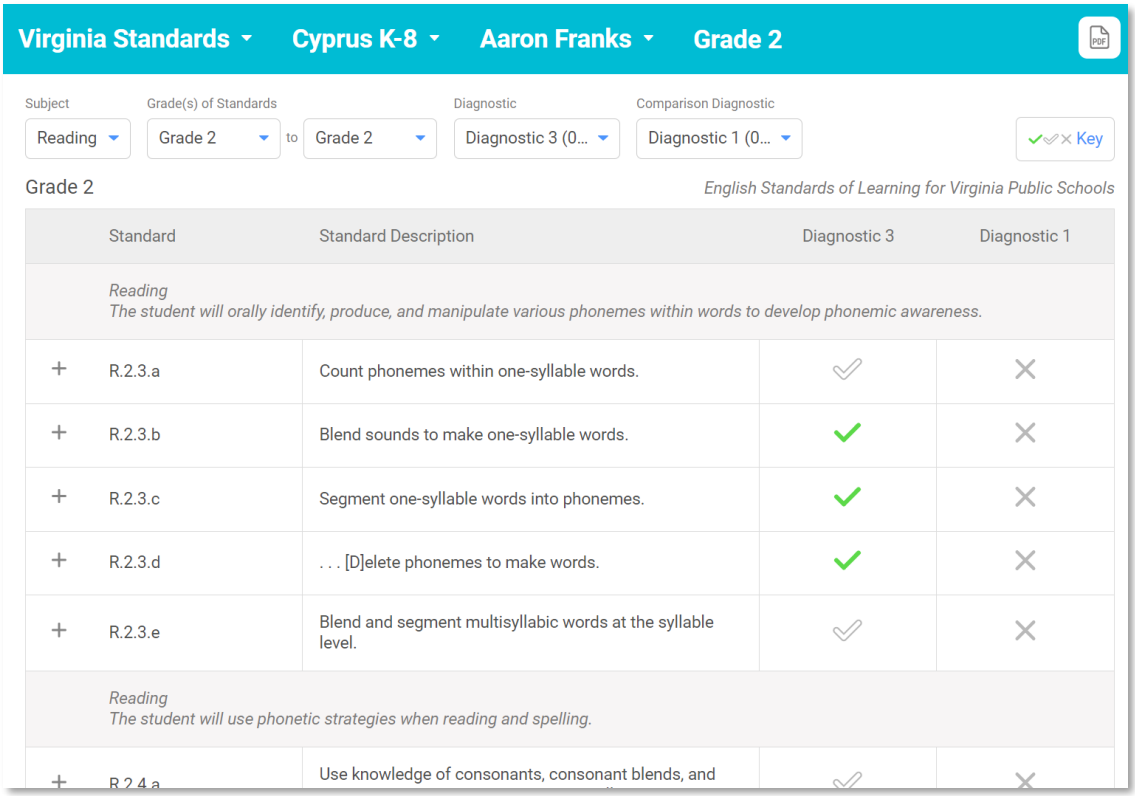


Figure 5. In this example of a Virginia Standards report for a student, the scores from two reading *Diagnostics* are displayed for comparison. Clicking on the standard provides more detail.

Five-Level Placements: Sizing the Academic Gaps

For the *Diagnostic* Results and *Diagnostic* Growth reports, 5-Level Placement provides a detailed breakdown of performance for a district, school, grade, or class to better target student needs. With these enhanced placements, educators can maintain a consistent perspective on placement throughout the school year and better see movement between placements. Teachers will have deeper insights into how groups of students are progressing towards proficiency and the level of scaffolding individual students need to be successful.

Teachers can see results in terms of these five levels, as listed below and shown in Figure 6:

Level 1: Mid on-grade level or above

Level 2: Early on-grade level

Level 3: One grade level below

Level 4: Two grade levels below

Level 5: Three or more grade levels below

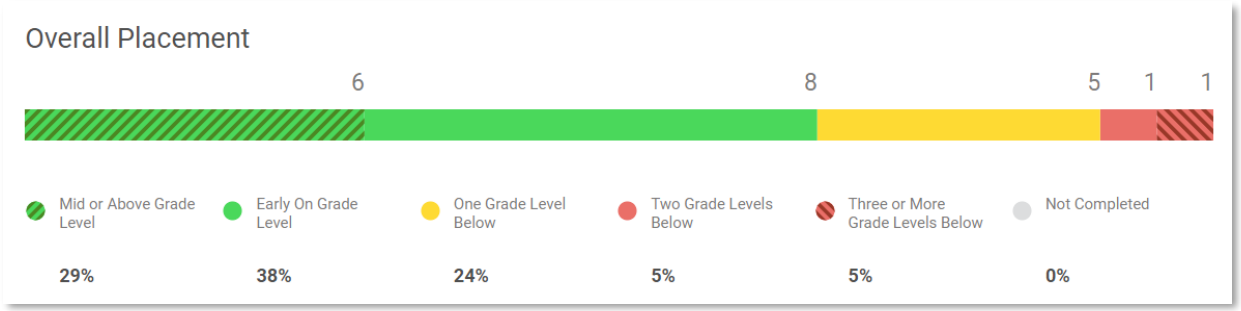


Figure 6. With *i-Ready's* five-level placement system, educators get a granular view of placements so they can target student needs, see movement in student placements, and maintain a consistent perspective on placement throughout the school year.

Instructional Groupings Report

The Instructional Groupings report groups students with similar instructional needs and, for each group, provides the teacher with detailed instructional priorities and classroom resources to support differentiated instruction. Figure 7 is an excerpt of this report.

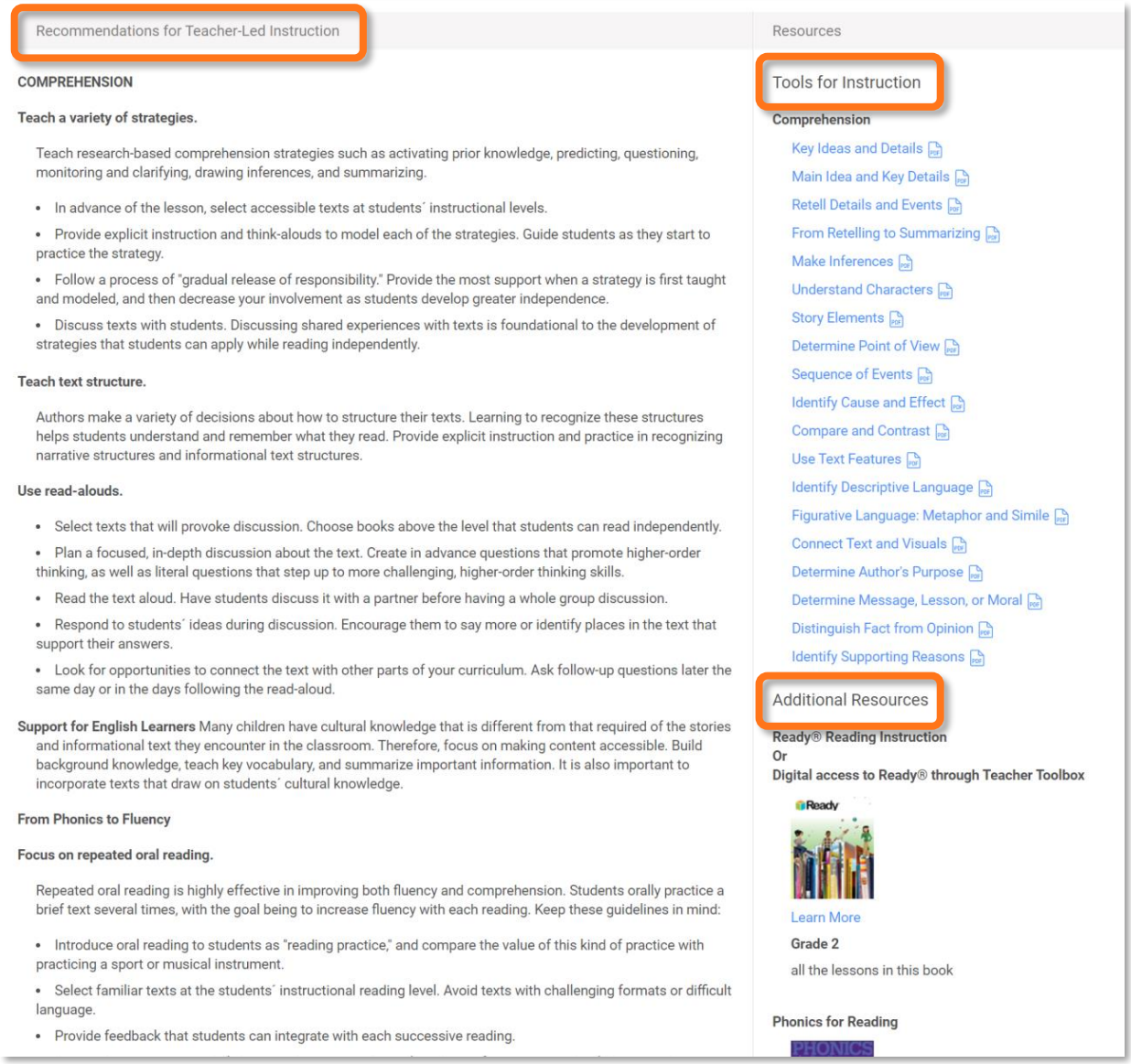
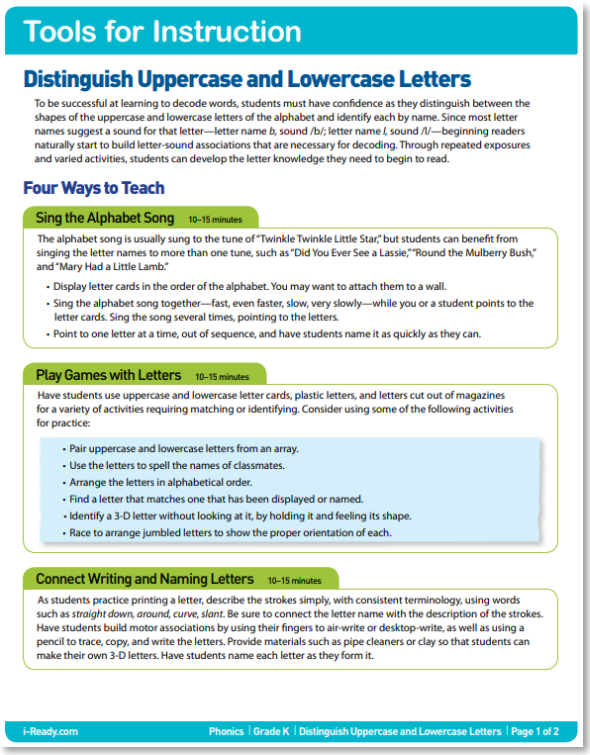


Figure 7. This excerpt from an Instructional Groupings report shows the recommendations for teacher-led instruction and additional resources.

Tools for Instruction

Tools for Instruction are short, targeted resources for teacher-led instruction that are tied directly to students' skills gaps and needs (Figure 8). These teacher-facing, downloadable PDF resources provide step-by-step lesson plans, complete with background on the targeted skill, a variety of ways to approach teaching or reinforcing the skill, and how to identify and remedy common student misconceptions. Tools for Instruction are designed for 20–30 minutes of instruction and are available for students performing at grades K–8. The resources are also available in Spanish for reading for grades K–6.

The list of recommended Tools for Instruction is updated after each *Diagnostic* based on the student's or instructional group's performance. Tools for Instruction can also be accessed from the i Ready teacher and administrator dashboards. Teachers can use Tools for Instruction to provide individualized instruction aligned with the individual student's results on the *Diagnostic*, deliver differentiated small group instruction, and review or re-teach prerequisite skills during whole class instruction.



Tools for Instruction

Distinguish Uppercase and Lowercase Letters

To be successful at learning to decode words, students must have confidence as they distinguish between the shapes of the uppercase and lowercase letters of the alphabet and identify each by name. Since most letter names suggest a sound for that letter—letter name *b*, sound /b/; letter name *l*, sound /l/—beginning readers naturally start to build letter-sound associations that are necessary for decoding. Through repeated exposures and varied activities, students can develop the letter knowledge they need to begin to read.

Four Ways to Teach

Sing the Alphabet Song 10–15 minutes

The alphabet song is usually sung to the tune of "Twinkle Twinkle Little Star," but students can benefit from singing the letter names to more than one tune, such as "Did You Ever See a Lassie," "Round the Mulberry Bush," and "Mary Had a Little Lamb."

- Display letter cards in the order of the alphabet. You may want to attach them to a wall.
- Sing the alphabet song together—fast, even faster, slow, very slowly—while you or a student points to the letter cards. Sing the song several times, pointing to the letters.
- Point to one letter at a time, out of sequence, and have students name it as quickly as they can.

Play Games with Letters 10–15 minutes

Have students use uppercase and lowercase letter cards, plastic letters, and letters cut out of magazines for a variety of activities requiring matching or identifying. Consider using some of the following activities for practice:

- Pair uppercase and lowercase letters from an array.
- Use the letters to spell the names of classmates.
- Arrange the letters in alphabetical order.
- Find a letter that matches one that has been displayed or named.
- Identify a 3-D letter without looking at it, by holding it and feeling its shape.
- Race to arrange jumbled letters to show the proper orientation of each.

Connect Writing and Naming Letters 10–15 minutes

As students practice printing a letter, describe the strokes simply, with consistent terminology, using words such as *straight down, around, curve, slant*. Be sure to connect the letter name with the description of the strokes. Have students build motor associations by using their fingers to air-write or desktop-write, as well as using a pencil to trace, copy, and write the letters. Provide materials such as pipe cleaners or clay so that students can make their own 3-D letters. Have students name each letter as they form it.

i-Ready.com Phonics | Grade K | Distinguish Uppercase and Lowercase Letters | Page 1 of 2

Figure 8. Tools for Instruction guide teacher-led lessons that focus instruction on areas of need. Shown here are kindergarten reading excerpts.

For additional information and to view more examples, see the Tools for Instruction overview page of our website: https://www.curriculumassociates.com/products/*i-Ready*/*i-Ready*-learning/tools-for-instruction.

Tools for Scaffolding Comprehension

Tools for Scaffolding Comprehension (Figure 9) provide a pathway to grade-level instruction by targeting the most important reading concepts and skills for grades 3–8. Educators can use Tools for Scaffolding Comprehension—along with their students' *Diagnostic* data and ELA scope and sequence—to create a plan for teaching critical skills.

Tools for Scaffolding Comprehension contain two different scaffolds: one is for students who are performing one level below grade level, and the other is for students who are performing two or more levels below grade level. Teachers will use the *Diagnostic* Results report to map their students to the appropriate scaffold.

Tools for Scaffolding Comprehension are designed to be approximately 30 minutes in length and can be used in small groups, whole class, or a combination of the two. Teachers receive lesson plans for each priority skill that prepare students for upcoming grade-level instruction. For each priority skill, developmentally appropriate texts are provided for students working at one and two or more grade levels below to support differentiated instruction.

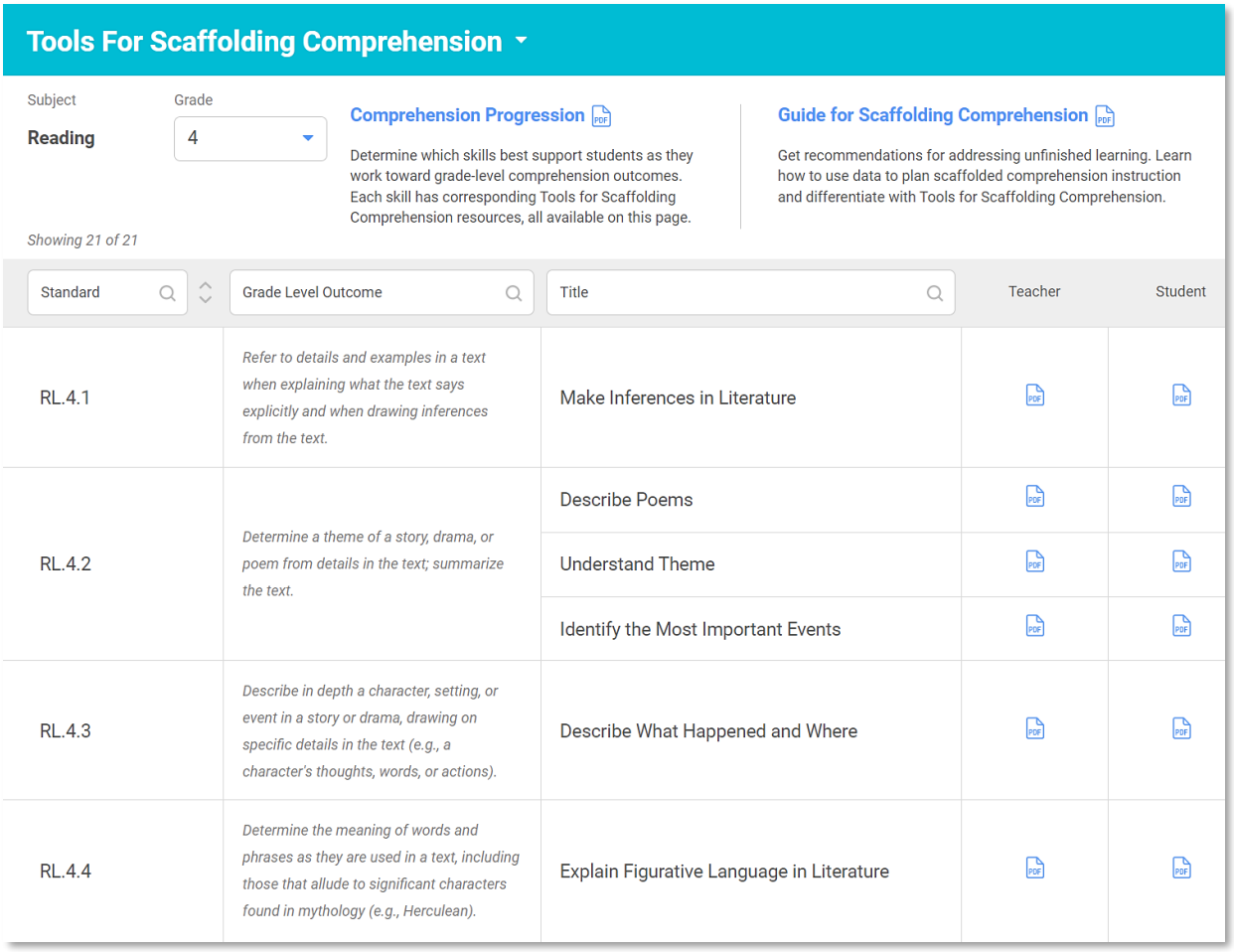


Figure 9. Tools for Scaffolding Instruction include lesson plans, scaffolded instruction resources, and comprehension progressions.

1c. Early literacy skills can be measured off grade level.

The *Diagnostic* measures reading skills off grade level; both above and below a student's chronological grade through the use of our differentiated growth model.

Differentiated Growth Model

i-Ready's differentiated growth model is based on empirical research into the growth of millions of *i-Ready* students (Figure 10). The model provides:

- **Differentiated growth targets**—Students' growth targets will differ based on their performance and placement on the fall *i-Ready Diagnostic*, providing more personalized growth expectations.
- **Two complementary measures of growth**—The model provides two benchmarks for understanding student growth:
    - **Typical Growth**: the average annual growth of students at each grade and placement level.
    - **Stretch Growth**: the growth recommended to put students performing below-grade level on a path to proficiency and students performing on-grade level on a path to advanced proficiency levels.

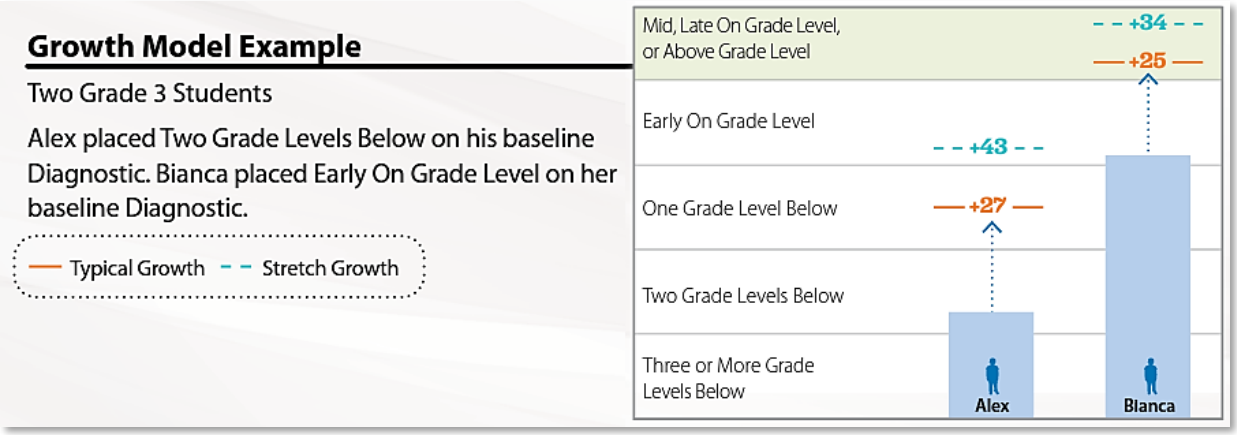


Figure 10. *i-Ready* provides differentiated growth measures based on each student's grade and initial placement on the *Diagnostic*.

Using *i-Ready's* grade-level placements, educators can identify where students who are performing below grade level need the most instructional support. *i-Ready* uses a three-tier classification system for placement levels, which are reported for each student and which differ across the school year, as follows.

- Beginning of Year (Fall) Benchmarks
    - Level 1 - On or above grade-level or one level below (Green on score reports)
    - Level 2 - Two levels below (Yellow on score reports)
    - Level 3 - More than two levels below (Red on score reports)

- Mid-Year Benchmarks
    - Level 1 - On or above grade-level (Green on score reports)
    - Level 2 - One level below (Yellow on score reports)
    - Level 3 – Two or more two levels below (Red on score reports)
- End-of-Year Benchmarks
    - Level 1 – At mid-year grade-level or above (Green on score reports)
    - Level 2 – At early grade-level (Yellow on score reports)
    - Level 3 – One or more grade levels below (Red on score reports)

With 5-Level Placement on reports, educators will have even deeper insights into how groups of students are progressing towards proficiency and the level of scaffolding that individual students will need to be successful. As illustrated in Figure 11, educators can see results in terms of five levels: mid- or above-grade level, early on-grade level, one grade level below, two grade levels below, or three or more grade levels below.

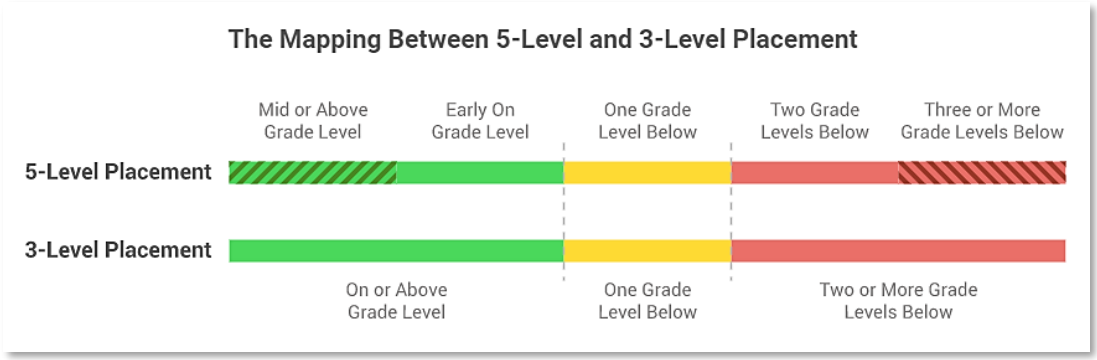


Figure 11. Curriculum Associates developed a five-level placement system to help teachers address the unfinished learning caused by pandemic-related school closings.

Please see response to Section II A, 1 beginning on page 49 for details of how the *Diagnostic* is able to measure reading skills off grade level for students in grades K–12.

2. Directly assess Reading Skills in English. Items must be aligned to the Virginia Standards of Learning.

Test items in the *i-Ready Diagnostic* are aligned to the Virginia Standards of Learning (SOL). Please see correlations of *i-Ready Diagnostic* to the Virginial SOL provided in **Appendix D**.

2a. Reading assessment measures skills in the five essential components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension.

When used together, the online and offline assessments in *i-Ready* Assessment address all five essential reading components: phonemic/phonological awareness, phonics, vocabulary, comprehension, and fluency. For more information, see Section II A, 1a, beginning on page 50 for details of how *i-Ready Assessment* measures skills in the five essential components of reading.

2b. Reading assessment indicates when students have achieved proficiency in Reading in English.

i-Ready's reading assessments indicate when students have achieved proficiency. Please see discussion of our Differentiated Growth Model, beginning on page 58, for details of how *i-Ready* Assessment indicates when students have achieved proficiency in Reading.

2c. Reading assessment provides information to the teacher regarding the next steps for instruction.

Many *i-Ready* reports suggest next steps for instruction based on student assessment performance, making it easy for educators to provide appropriate instruction to help students progress. For example, the Instructional Groupings report groups students with similar instructional needs and, for each group, provides the teacher with detailed instructional priorities and classroom resources to support differentiated instruction. For more information on how *i-Ready* provides information to the teacher regarding next steps for reading instruction, please see response beginning on page 51.

3. Early Numeracy assessment is to be used with students who are performing below, at, or above current grade level. Assessment is to be used with students who are performing below, at, or above current grade level. These assessments should assess a range of skills across and beyond the grade level.

i-Ready Assessment allows for the assessment of foundational skills for all grade levels. *i-Ready Diagnostic* starts students at an estimated difficulty level based on their chronological grade level. As a student answers questions correctly or incorrectly, the test adjusts up or down, with questions of varying difficulty, until the assessment reaches the level of difficulty that is "just right" for each student and pinpoints which skills have been mastered and which need additional work.

For example, a student may need support in algebraic thinking, but is meeting grade-level expectations in numbers and operations. The depth of the item bank enables the *Diagnostic* to truly pinpoint a student's performance and ensures the accuracy of results.

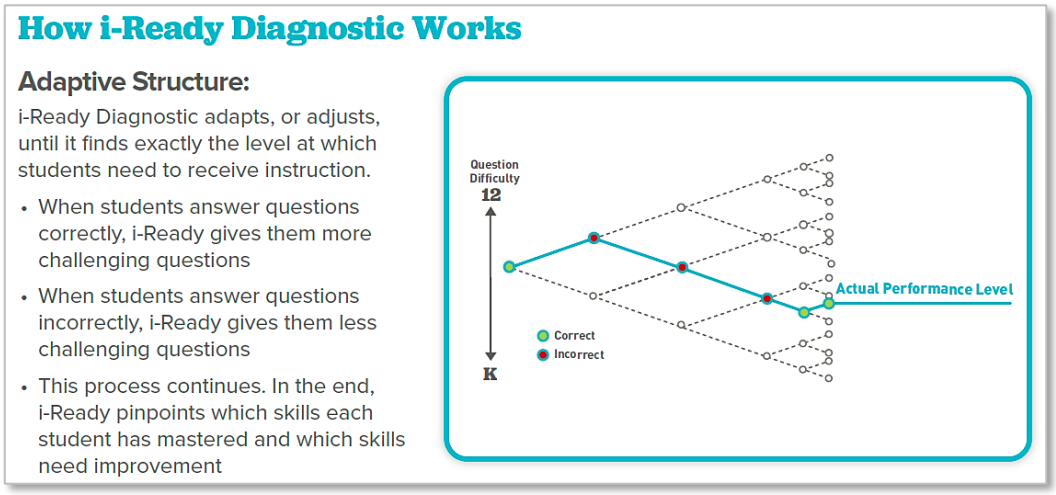


Figure 12. By adapting to student responses and assessing a broad range of skills—including skills above and below a student's chronological grade—the *Diagnostic* pinpoints a student's performance level.

The *Diagnostic's* adaptive algorithm automatically selects from thousands of items to get to the core of each student's strengths and challenges.

The mathematics assessments include multiple choice items, technology-enhanced items (short answer, inline choice, and number line), and virtual tools to help answer questions (unit squares, unit cubes, base-ten blocks, ten-frame counters, protractors, rulers, and calculators).

The *Diagnostic* for mathematics is also available in Spanish, enabling educators to assess students in either Spanish or English or both. Based on a careful transadaptation of each item using a rigorous process recommended by the International Test Commission, these assessment items match the content and rigor of the *Diagnostic* for mathematics in English.

A continuum of scale scores from kindergarten through high school offers powerful longitudinal data by tracking student progress within and across years—essential to evaluating program efficacy, differentiating instruction, and supporting learners in reaching their potential.

> **"I use *i-Ready* data in several different ways. From the minute the *Diagnostic's* completed, I'll use the data to start my instructional groupings. Every week I'll check to see how the students are performing. Are they passing each domain and each standard?"**
> **—Educator and *i-Ready* user**

3a. Early Numeracy assessment item types other than typical multiple- choice questions (e.g., multi-select items).

For types other than multiple choice, *i-Ready* mathematics assessments include

- Technology-enhanced items: short answer, inline choice, and number line
- Virtual tools to help answer questions: unit squares, unit cubes, base-ten blocks, ten-frame counters, protractors, rulers, and calculators.

3b. Early Math assessment assesses skills in math concepts and fluency.

i-Ready Diagnostic and *i-Ready Personalized Instruction* organize mathematical content into four major groups called domains. The goal of this grouping is to build understanding of mathematical concepts within each group and to ensure these concepts progress appropriately within and across grades.

The four *i-Ready* math domains are:

- Number and Operations
- Algebra and Algebraic Thinking
- Measurement and Data
- Geometry

Number and Operations

<table>
<tr><th>K</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th></tr>
<tr><td colspan="2">Counting</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="5">Base-Ten System</td><td colspan="4" rowspan="2">The Number System</td></tr>
<tr><td></td><td></td><td></td><td colspan="2">Fractions</td></tr>
</table>

i-Ready Diagnostic

In *i-Ready Diagnostic*, the items aligned to the Number and Operations domain in grades K–2 allow students to demonstrate proficiency in the skills associated with counting, whole numbers, and understanding of place value and its application to mathematical operations. In these grades, virtual manipulatives are used to help students show conceptual understanding of place value and the algorithms for adding and subtracting. For example, students can utilize a virtual base-ten block tool to help with regrouping for solving subtraction items.

In grades 3–5, the items aligned to the Number and Operations domain allow students to demonstrate a deeper understanding of the concepts they learned in the primary grades, while also demonstrating their understanding of how these concepts expand into other sets of numbers, such as fractions and decimals. In this domain, there are technology-enhanced items where students can show conceptual understanding of fractions by plotting the fractions on a number line tool.

In grades 6–8, the items aligned to the Number and Operations domain allow students to demonstrate their understanding of how the concepts they learned earlier in this domain extend to integers, rational numbers, and real numbers. They also demonstrate their facility with converting among different representations of numbers.

i-Ready Personalized Instruction

i-Ready Personalized Instruction lessons provide rich opportunities for students to develop an understanding of whole numbers, fractions, decimals, and rational numbers. The sequence of instruction begins with whole numbers. Students use virtual counters, models, and manipulatives to develop understanding of the concepts of counting and place value. Learners then build on these foundational understandings to develop strategies and algorithms to add, subtract, multiply, and divide whole numbers (Figure 13).

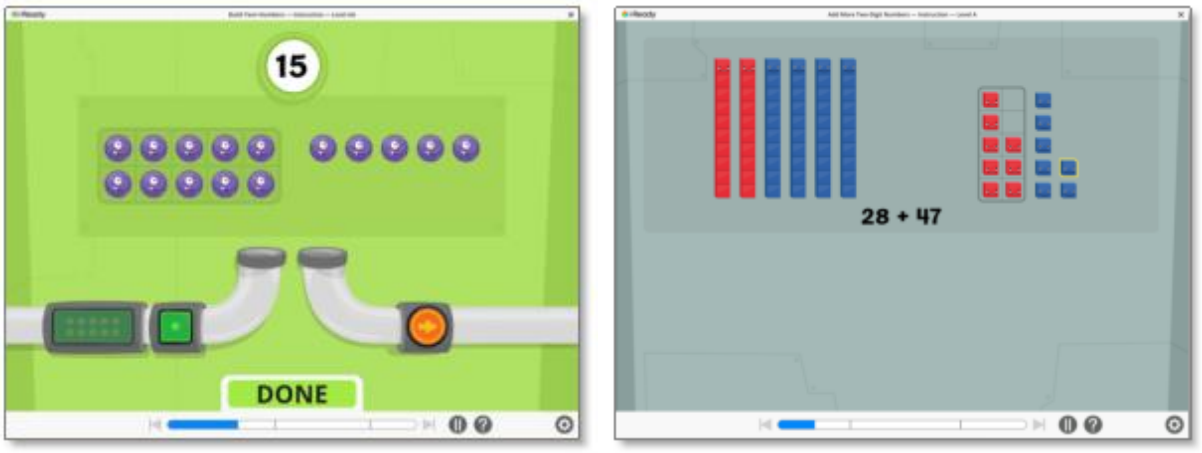


Figure 13. *Personalized Instruction* lessons in the Number and Operations domain for grades K–2 cover skills associated with counting and whole numbers. The grade 1 lesson on the left is "Build Teen Numbers," and the grade 2 lesson on the right is "Subtract Two-Di git from Three-Digit Numbers.

The lessons expand upon students' understanding of whole numbers to develop the concepts of fractions and decimals, using real-world contexts when appropriate. Students continue to use virtual tools and models, including the number line and area models, to develop an understanding of unit fractions, equivalent fractions, comparing fractions, and operations involving fractions. Decimal numbers are introduced using area models, and a connection is made to decimal fractions and the base-ten system.

Students use their understanding of whole numbers and fractions as points on the number line, as well as their grasp of the properties of operations on whole numbers and fractions, to understand positive and negative rational numbers as a number system (Figure 14).

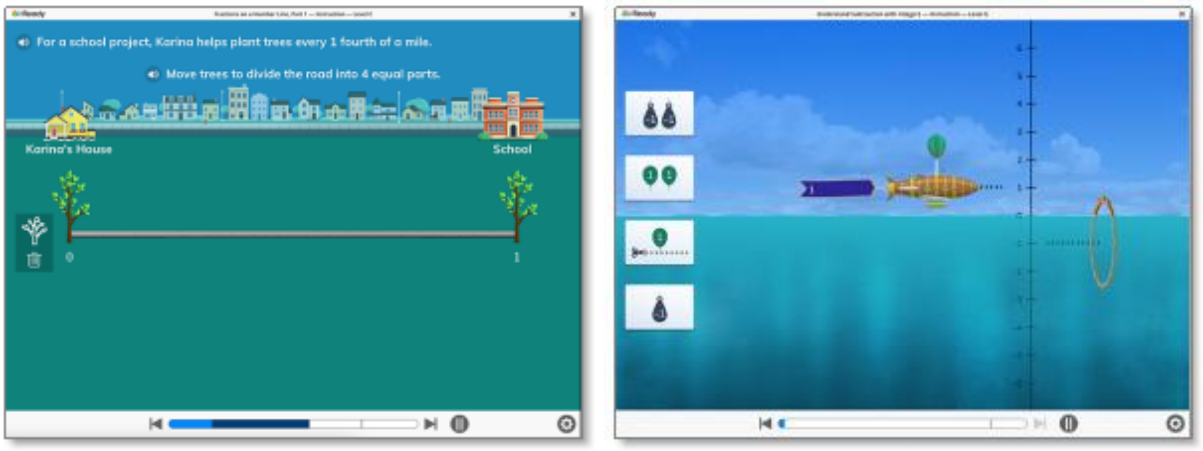


Figure 14. *Personalized Instruction* lessons in the Number and Operations domain help students develop an understanding of fractions, decimals, and rational numbers. The grade 3 lesson on the left is "Fractions on a Number Line," and the grade 7 lesson on the right is "Understand Subtraction with Integers."

Algebra and Algebraic Thinking

<table>
<tr><th>K</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th></tr>
<tr><td colspan="6" rowspan="2">Operations and Algebraic Thinking</td><td colspan="3">Expressions and Equations</td></tr>
<tr><td></td><td></td><td>Functions</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td colspan="2">Ratio and Proportional Relationships</td><td></td></tr>
</table>

i-Ready Diagnostic

In *i-Ready Diagnostic*, the grades K–2 items aligned to the Algebra and Algebraic Thinking domain allow students to demonstrate their ability to represent problem situations with number sentences. As in the Number and Operations domain, in these earlier grades, students use virtual manipulatives to represent these problem situations. For example, a 10-frame with counters can be used to represent what is meant by the equation 5 + 2 = 7, and how that may be manipulated to show understanding that 7 – 2 = 5.

The *Diagnostic* items shown in Figure 15 are examples of operations of addition, counting and comparing numbers, and solving word problems.

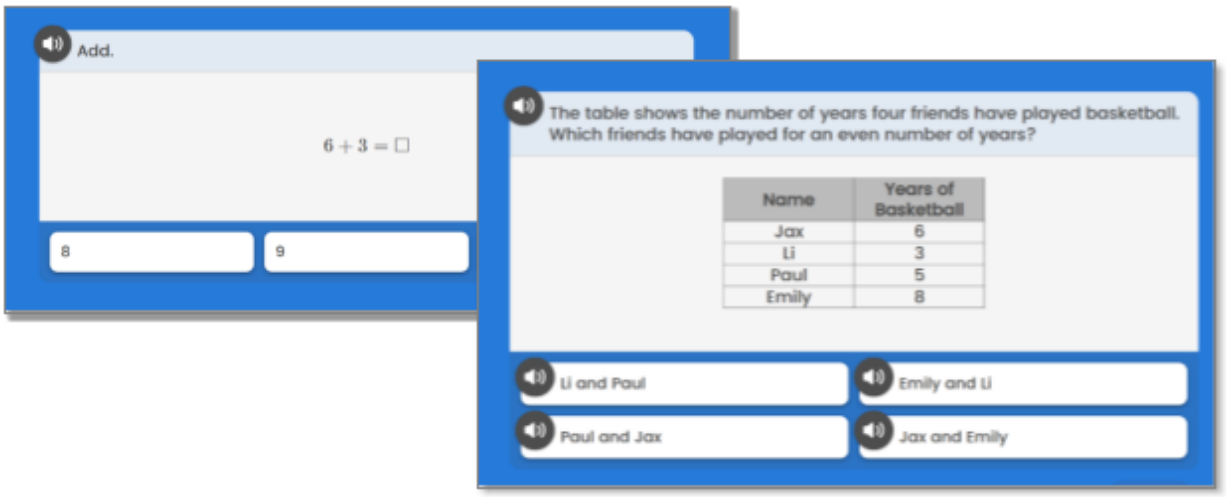


Figure 15. These examples of *Diagnostic* items in the Algebra and Algebraic Thinking domain are for grade K (left) and grade 2 (right).

In grades 3–5, the items aligned to Algebra and Algebraic Thinking expand to include students' capabilities of modeling problems using equations. These items allow students to demonstrate their understanding by asking them to select the equation that best models a mathematical or real-world problem.

In grades 6–8, the items aligned to Algebra and Algebraic Thinking expand on students' understanding of modeling problems to using different representations to solve the problems, including expressions, equations, and functions. In these grades, students may represent situations by graphing a line on a coordinate plane tool.

i-Ready Personalized Instruction

i-Ready Personalized Instruction uses a problem-solving approach to develop the meanings and properties of the operations throughout grades K–8. The idea of equations is developed through a progression: representing an unknown amount with a symbol or variable, the properties and order of operations, evaluating and simplifying expressions, and solving equations (Figure 16.

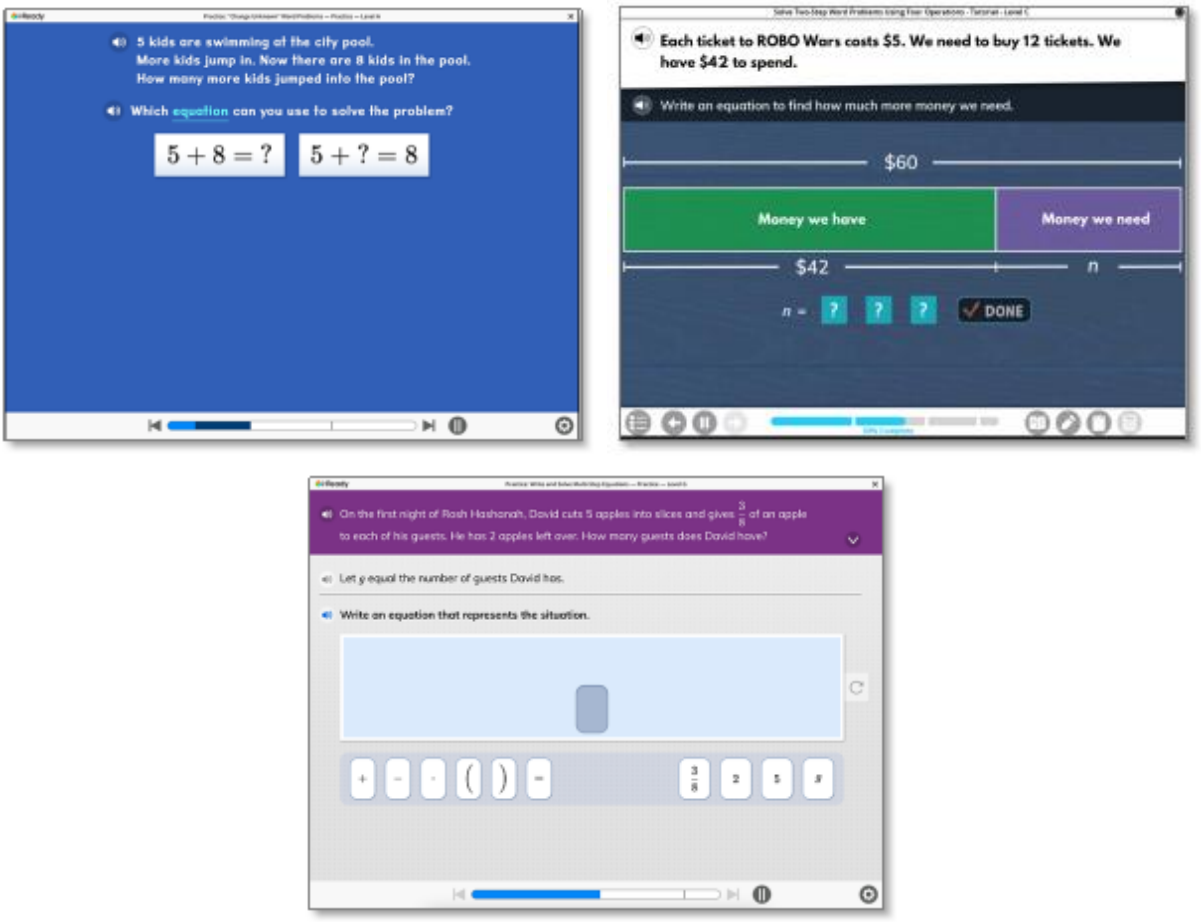


Figure 16. These examples of *Personalized Instruction* practice lessons in the Algebra and Algebraic Thinking domain (grade 1 on the top left, grade 3 on the top right, and grade 7 on the bottom) use word problems to help students develop their understanding of equations.

Lessons provide students with the opportunity to use manipulatives, arrays, area models, interactive equations, tape diagrams, and a balance model to solve a variety of one-step, two-step, and multi-step problems with unknowns in various places (Figure 17 and Figure 18). As the modules progress through the problem types, the range of numbers used is extended and different problem-solving strategies are developed.

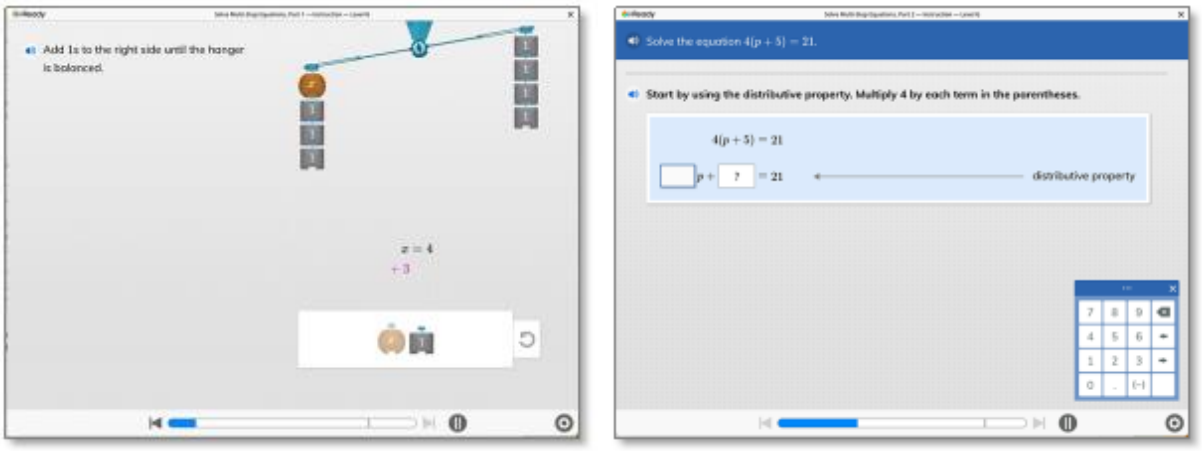


Figure 17. In this grade 7 *Personalized Instruction* lesson in the Algebra and Algebraic Thinking domain, the student is solving a multi-step equation.

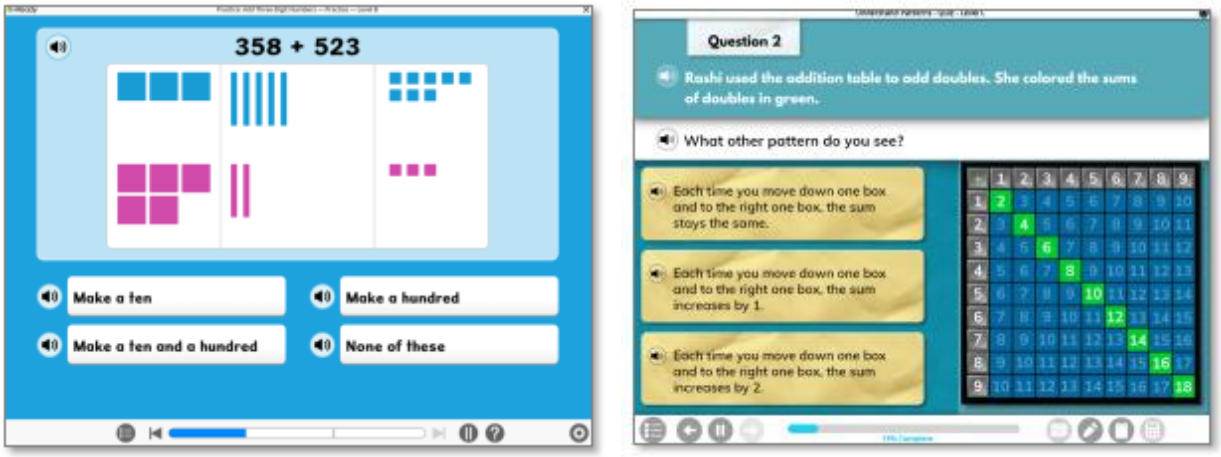


Figure 18. These images show the variety of graphics used to support problem-solving in *Personalized Instruction* (grade 1 lesson: left; grade 3 quiz: right).

i-Ready lessons introduce patterns and variables in upper elementary school. These concepts are recalled in middle school to introduce the idea of a function. In grade 8, the concept of function is developed using different representations: algebraic, numeric, graphic, tables, and verbal. As with other topics, *i-Ready* leverages meaningful, real-life contexts to motivate learning. *i-Ready Personalized Instruction* lessons also employ a problem-solving approach and real-world contexts to explore ratios and proportional relationships (Figure 19). The modules guide students in using manipulatives, tables, and graphs to explore these concepts, and the outcomes of their explorations are used to formally define them.

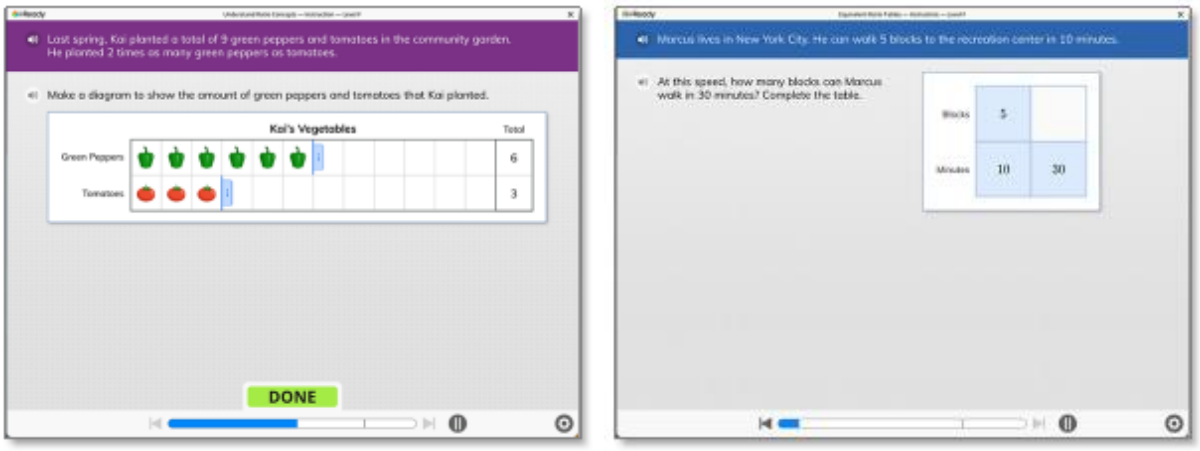


Figure 19. These grade 6 *Personalized Instruction* lessons in the Algebra and Algebraic Thinking domain help students explore ratios and proportional relationships. The lesson on the left is "Understand Ratio Concepts," and the lesson on the right is "Equivalent Ratio Tables."

Measurement and Data

K	1	2	3	4	5	6	7	8
Measurement								
Data						Statistics & Probability		

i-Ready Diagnostic

In *i-Ready Diagnostic*, the items aligned to the Measurement and Data domain allow students to observe, collect, display, organize, and interpret measures and data. In grades K–2, the items focus on measuring using virtual tools such as a ruler, and interpreting data displayed in simple graphs such as picture and bar graphs.

In grades 3–5, the items aligned to Measurement and Data provide opportunities for students to demonstrate their extended understanding of more complex measurements and data sets. The items aligned to this domain in these grades also emphasize conceptual understanding of geometric measurement. For example, there is a tool that allows students to fill a rectangular prism with unit cubes to demonstrate an understanding of volume.

In grades 6–8, the items no longer have any focus on geometric measurement, concentrating solely on the concepts of statistics and probability. Items ensure that students are given the opportunity to demonstrate their conceptual understanding of more complex data sets. Technology-enhanced items allow students to demonstrate their understanding of bivariate data by graphing linear functions that closely represent a data set.

i-Ready Personalized Instruction

The instruction modules in *i-Ready Personalized Instruction* provide students with virtual measurement tools including one-inch tiles, one-centimeter tiles, rulers, beakers, balance scales, protractors, and area and volume models to explore measurement concepts (Figure 20). The number line is used to develop length concepts, as well as to understand the number systems and their operations.

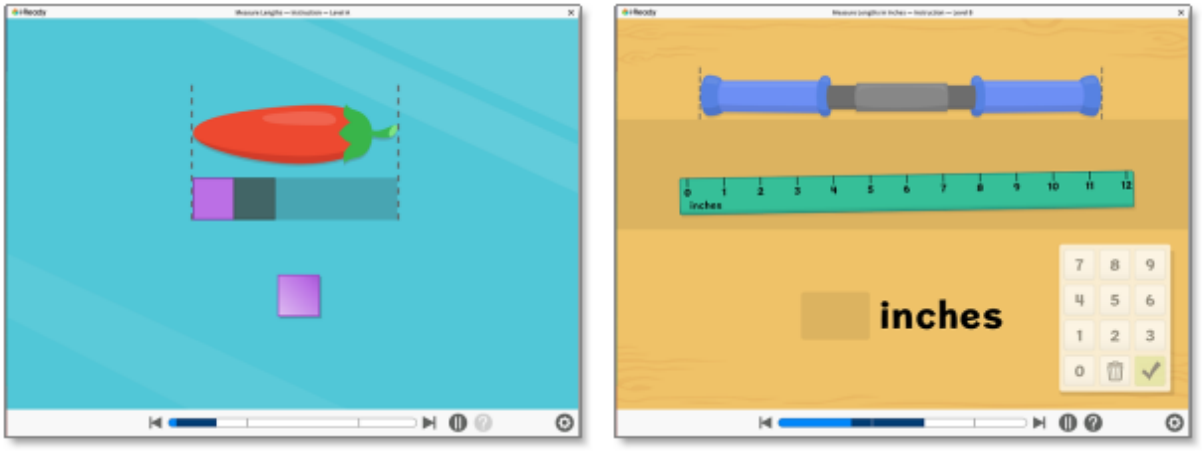


Figure 20. These sample *Personalized Instruction* lessons in the Measurement and Data domain—grade 1 on the left and grade 2 on the right—help students explore measurement concepts using virtual measurement tools.

Real-world contexts are used in conjunction with these various measurement tools to enhance students' conceptual understanding. The contexts provide meaning when working with measurement and data analysis (Figure 21).

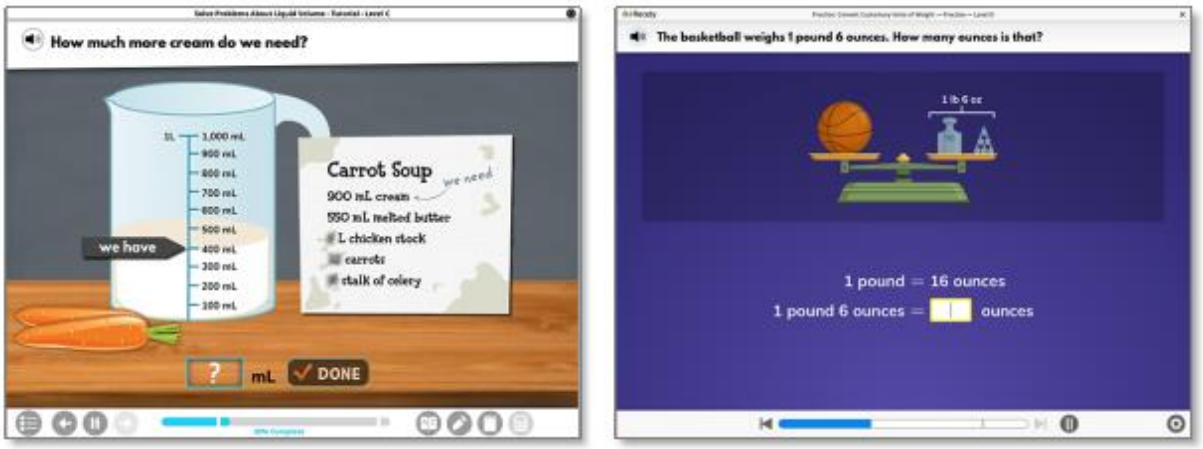


Figure 21. These lessons from the Measurement and Data domain illustrate how *Personalized Instruction* incorporates real-world scenarios. The grade 3 lesson on the left references ingredients in a recipe, and the grade 4 lesson on the right references a basketball.

A variety of application problems are solved using problem-solving strategies, including using a tape diagram, number line, or other model to understand the application problem. Lessons use virtual tools to have students sort objects or data into categories and take measurements. The information collected is used to build and analyze bar graphs and line plots.

i-Ready Personalized Instruction takes middle-school students through the process of data analysis. Students ask a question, collect data, organize the data using an appropriate graphical display, and then analyze the data to answer the question. This process allows students to gain an understanding of what the data represents when organized in various displays such as dot plots, histograms, and box plots.

The lessons also extend students' understanding of proportional relationships to develop probability concepts and an understanding of statistical inferences. Students use proportional reasoning to make predictions about random events and then test their predictions. They also use proportional reasoning to make inferences about a population based on a random sample from that population.

They understand that their predictions and inferences are not going to be exact, but close enough to gather useful information; that is the nature of statistics.

Geometry

K	1	2	3	4	5	6	7	8
Geometry						Geometric Measurement		

i-Ready Diagnostic

In *i-Ready Diagnostic*, the items aligned to the Geometry domain allow students to demonstrate proficiency in identifying, analyzing, and reasoning with shapes and figures. In grades K–2, the items are concentrated on two areas—students are provided the opportunity to demonstrate proficiency with the attributes of different shapes, and they can show connections to a conceptual understanding of fractions as part of a whole. Technology-enhanced items allow students to sort or identify shapes that have similar attributes.

In grades 3–5, the items aligned to Geometry expand on students' understanding of figures and begin to assess student understanding of the attributes in hierarchies. These items also ask students to demonstrate a conceptual understanding of two-dimensional figures in space. Some of the technology-enhanced items have students plot shapes in the first quadrant of a coordinate plane. Other items may have them fill in a two-dimensional space with unit squares to help demonstrate proficiency with a conceptual understanding of area.

In grades 6–8, there is somewhat of a shift in the domain. In grades K–5, the only geometric measurement concepts covered in the Geometry domain are those that deal with conceptual understanding of area. However, in grades 6–8, with the Measurement and Data domain focusing on Statistics and Probability, all the geometric measurement concepts fall under the Geometry domain. These include area of composite figures, surface area, and volume. In addition to these concepts, higher-level geometric concepts are also assessed in *i-Ready* in grades 6–8. These concepts include relating transformations to congruence and similarity and analyzing proofs of the Pythagorean Theorem and its converse.

Some of *i-Ready Diagnostic's* technology-enhanced items in this domain at these grade levels use a virtual protractor to allow students to demonstrate proficiency with rotations.

i-Ready Personalized Instruction

i-Ready Personalized Instruction follows the four levels of geometric thinking:

- Visual/syncretic: shape recognition
- Descriptive: identification of properties of shapes
- Analytic: characterize shapes based on their properties
- Abstract: classify shapes in hierarchies

Explorative and hands-on activities are used to develop concepts. Activities include using pattern blocks, area tiles, unit cubes, grids, and the coordinate plane to sort, classify, construct, dissect, locate, and transform various geometric objects (Figure 22, Figure 23). The focus is to help students develop understanding of geometric relationships.

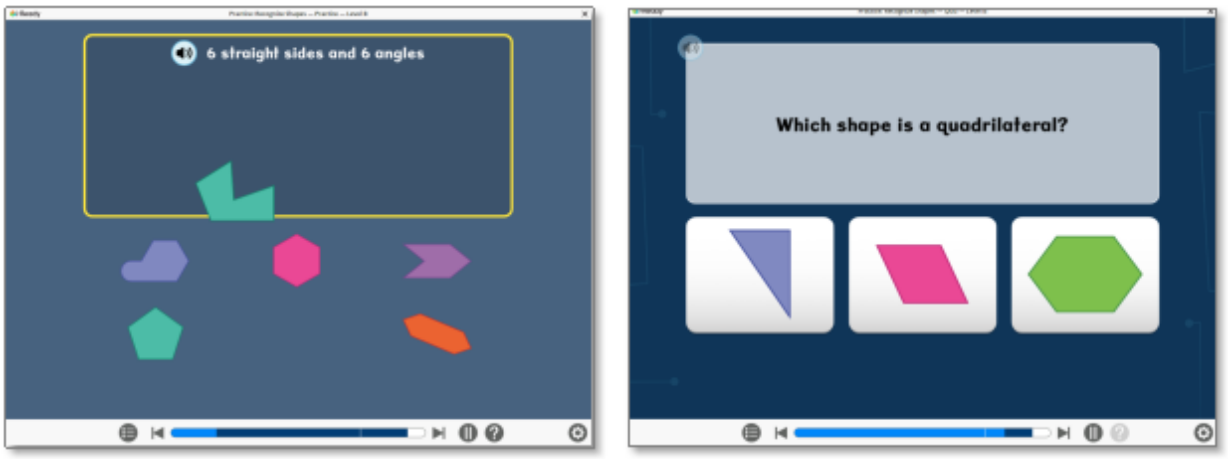


Figure 22. This grade 2 *Personalized Instruction* lesson from the Geometry domain uses drag-and-drop to help the student recognize sides and angles of a shape (left), and then moves into a quiz on naming the shapes (right).

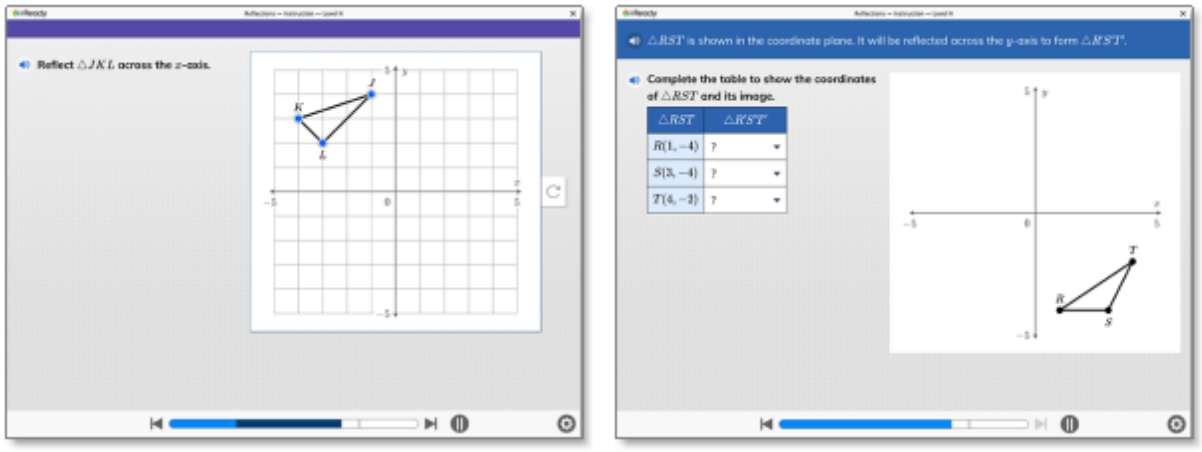


Figure 23. These grade 8 *Personalized Instruction* lessons from the Geometry domain use a coordinate plane to help students understand geometric relationships.

3c. Early Math assessment indicates when students have achieved proficiency in Math.

i-Ready provides information about when students have achieved proficiency in math through the use of our differentiated growth model.

Differentiated Growth Model

i-Ready's differentiated growth model is based on empirical research into the growth of millions of *i-Ready* students (Figure 24). The model provides:

Differentiated growth targets—Students' growth targets will differ based on their performance and placement on the fall *i-Ready Diagnostic*, providing more personalized growth expectations.

Two complementary measures of growth—The model provides two benchmarks for understanding student growth:

Typical Growth: the average annual growth of students at each grade and placement level.

Stretch Growth: the growth recommended to put students performing below-grade level on a path to proficiency and students performing on-grade level on a path to advanced proficiency levels.

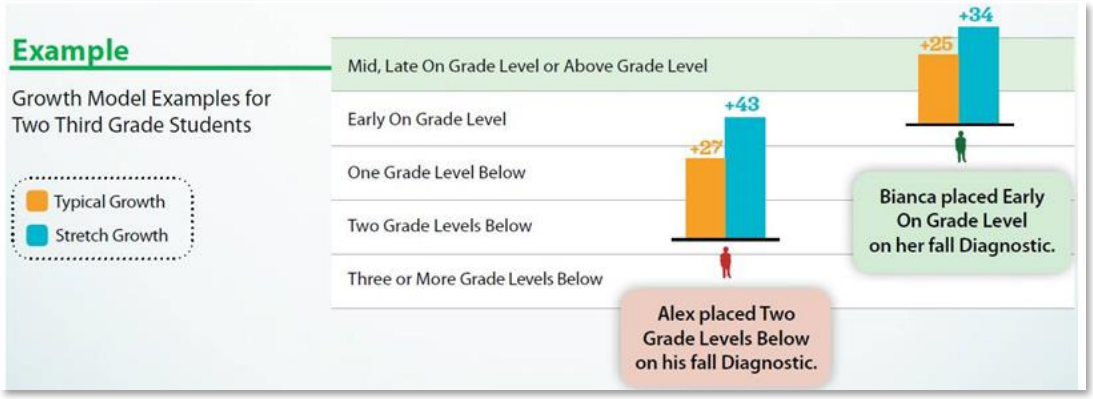


Figure 24. *i-Ready* provides differentiated growth measures based on each student's grade and initial placement on the *Diagnostic*.

Using *i-Ready's* grade-level placements, educators can identify where students who are performing below grade level need the most instructional support. *i-Ready* uses a three-tier classification system for placement levels, which are reported for each student and which differ across the school year, as follows.

Beginning of Year (Fall) Benchmarks

Level 1 - On or above grade-level or one level below (Green on score reports)

Level 2 - Two levels below (Yellow on score reports)

Level 3 - More than two levels below (Red on score reports)

Mid-Year Benchmarks

Level 1 - On or above grade-level (Green on score reports)

Level 2 - One level below (Yellow on score reports)

Level 3 – Two or more two levels below (Red on score reports)

End-of-Year Benchmarks

Level 1 – At mid-year grade-level or above (Green on score reports)

Level 2 – At early grade-level (Yellow on score reports)

Level 3 – One or more grade levels below (Red on score reports)

With 5-Level Placement on the *Diagnostic* Results and *Diagnostic* Growth reports, educators will have even deeper insights into how groups of students are progressing towards proficiency and the level of scaffolding that individual students will need to be successful. As illustrated in **Figure 25** , educators can see results in terms of five levels: mid- or above-grade level, early on-grade level, one grade level below, two grade levels below, or three or more grade levels below.

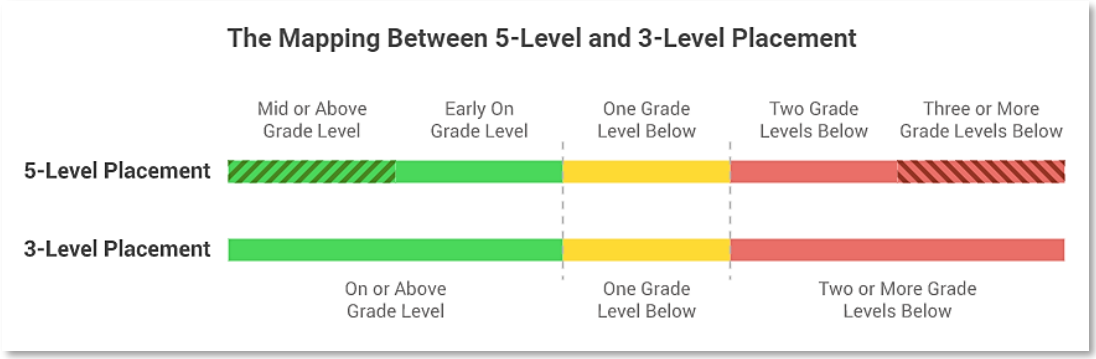


Figure 25. Curriculum Associates developed a five-level placement system to help teachers address the unfinished learning caused by pandemic-related school closings.

3d. Early Math assessment provides information to the teacher regarding the next steps for instruction.

i-Ready's comprehensive reports synthesize enormous amounts of data, assisting teachers in truly differentiating instruction and providing each student what they need to progress to the next level. Following are examples of some of the resources that can help teachers differentiate instruction.

- The **Virginia Standards Performance** report provides standard-by-standard analysis that details student performance against the SOL and sub-skills/against Virginia SOL standards.
- The ***Diagnostic* Results** student report includes a list of what the student "Can Do" as well as specific Next Steps and Resources for Instruction—the next skills in a developmental progression that students need to master. See page 76 for more information.
- Teachers use the **Instructional Groupings** report to bring together students who need support with similar skills, to understand exactly which skills they need to develop, and for guidance in how to address those shared instructional needs. This report lists the number and names of students in each instructional grouping; students' overall and domain-level placements; and recommended instructional resources for each group. See page 54 for more information.

- Both the *Diagnostic* Results and the Instructional Groupings reports include downloadable **Tools for Instruction** (available for students performing at or below grade 8). These educator-facing, downloadable PDF resources provide step-by-step lesson plans, complete with background on the targeted skill, a variety of ways to approach teaching or reinforcing the skill, and how to identify and remedy common student misconceptions. See page 52 for more information.
- The **Prerequisites** report (mathematics) is based on students' results on the *Diagnostic* to help educators see students' individual learning needs for the upcoming grade-level mathematics instruction, both by individual student, and for small groups, as well as overall common needs in the whole class. Teachers can use the report data to make instructional decisions about how to best support the students during the upcoming lesson. See page 81 for more information.

Virginia Standards Performance Report

The Virginia Standards Performance report provides educators with a standard-by-standard analysis that details student performance against the Virginia SOLs for mathematics. The report shown in Figure 26 is at the student level; it is also available at the class level.

The green check marks signify likely understanding of the skill aligned to the standard, and the grey check marks signify only some understanding (or only partial alignment of the skill to the standard). A standard with an X means that the student has not demonstrated sufficient understanding of the skill.

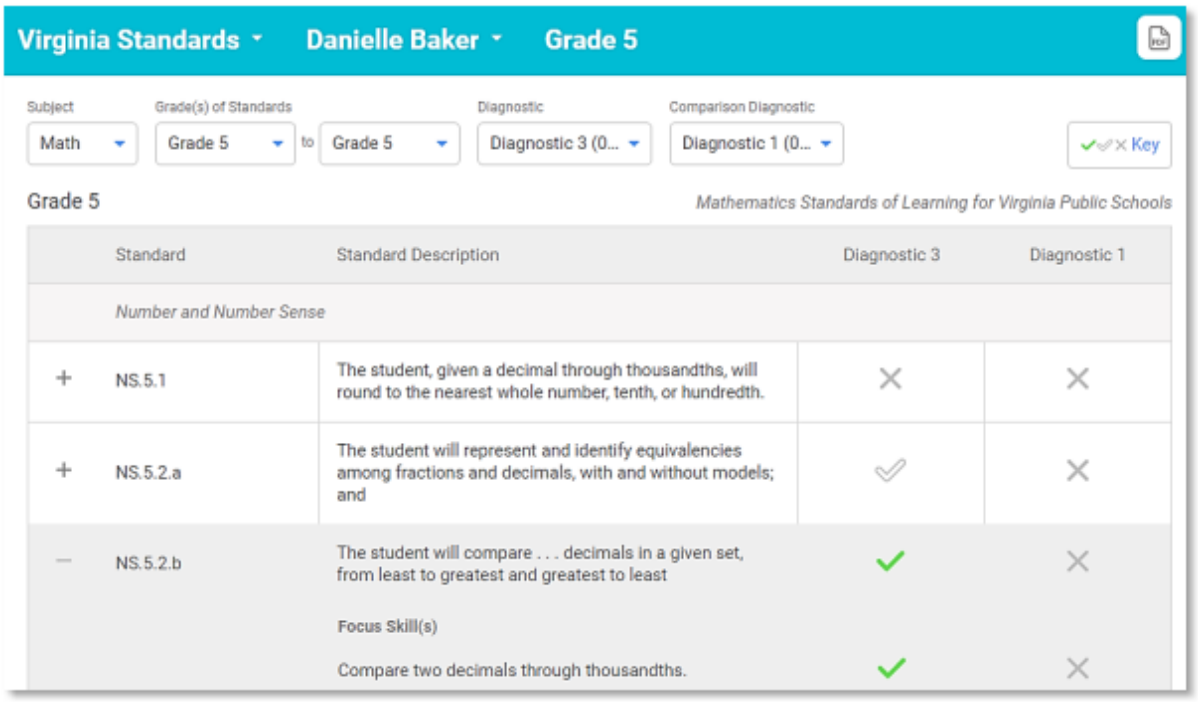


Figure 26. In the Virginia Standards report, educators can quickly assess student skills as they relate to Virginia standards. In this example, the scores from two *Diagnostic*s are displayed for comparison. Clicking on the standard provides more detail.

Diagnostic Results Report: Student Level

Upon completion of the *Diagnostic*, the *Diagnostic* Results report presents *Diagnostic* scores and generates an overall development analysis.

The student-level report includes a list of what the student "Can Do" as well as specific Next Steps and Resources for Instruction—the next skills in a developmental progression that the student needs to master. **Figure 27** and **Figure 28** present excerpts from a *Diagnostic* Results student report.

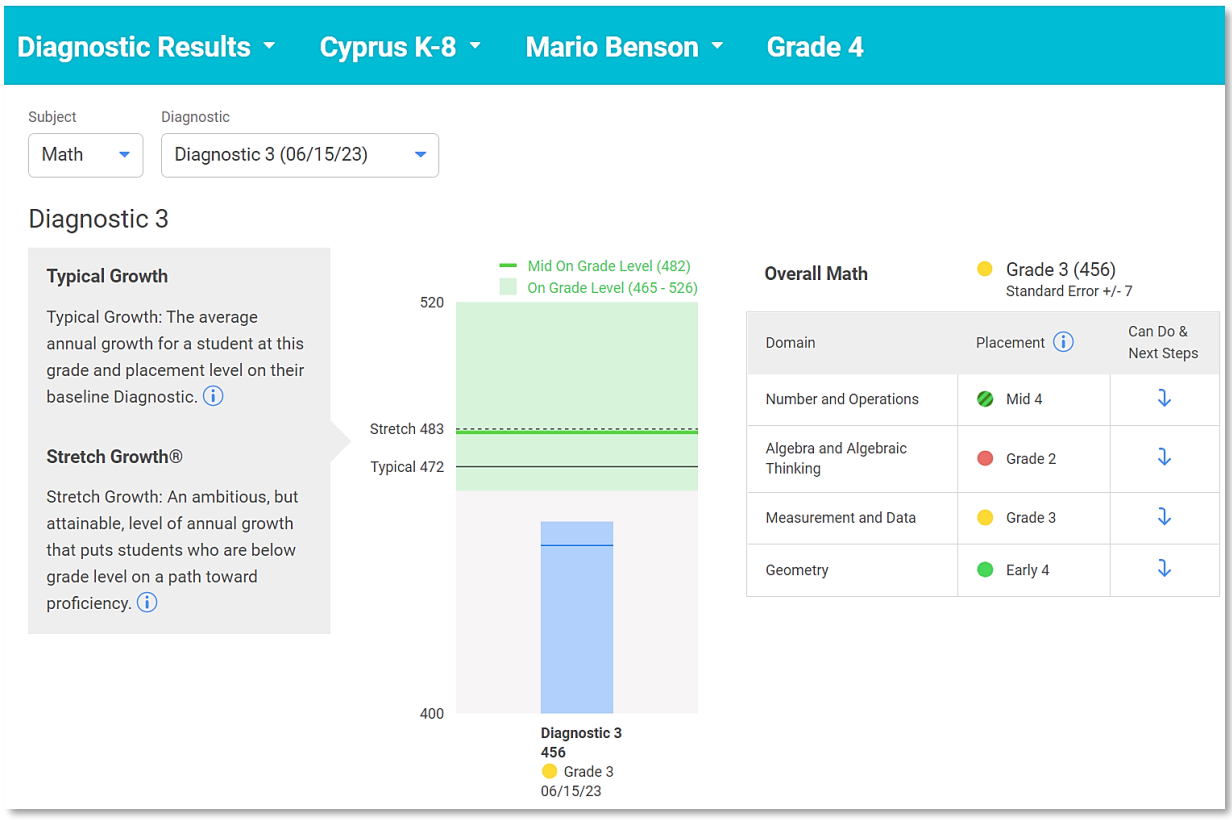


Figure 27. The *Diagnostic* Results (Student) report gives teachers insight into the instructional strengths, areas of need, and annual growth expectations for every student in their class.

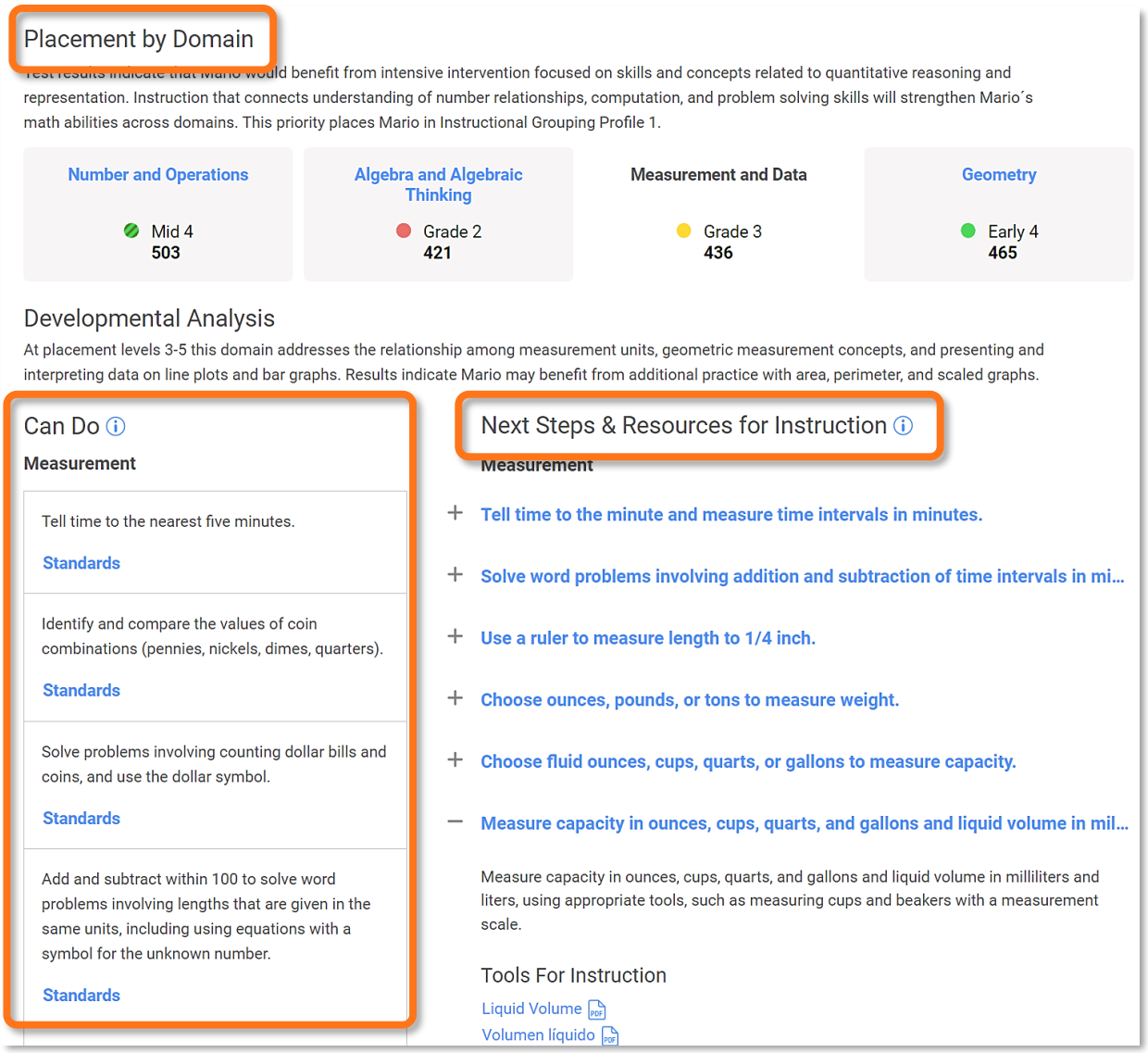


Figure 28. This excerpt from the *Diagnostic* Results (Student) report shows the streamlined—yet informative—Developmental Analysis, "Can Do," and Next Steps/Resources for Instruction features, as well as the placement levels for each domain. Educators can click on any of the 'Standards' links to see the state standard addressed.

Instructional Groupings Report

The Instructional Groupings report groups students with similar instructional needs and, for each group, provides the teacher with detailed instructional priorities and classroom resources to support differentiated instruction. Figure 29 is an excerpt of this report.

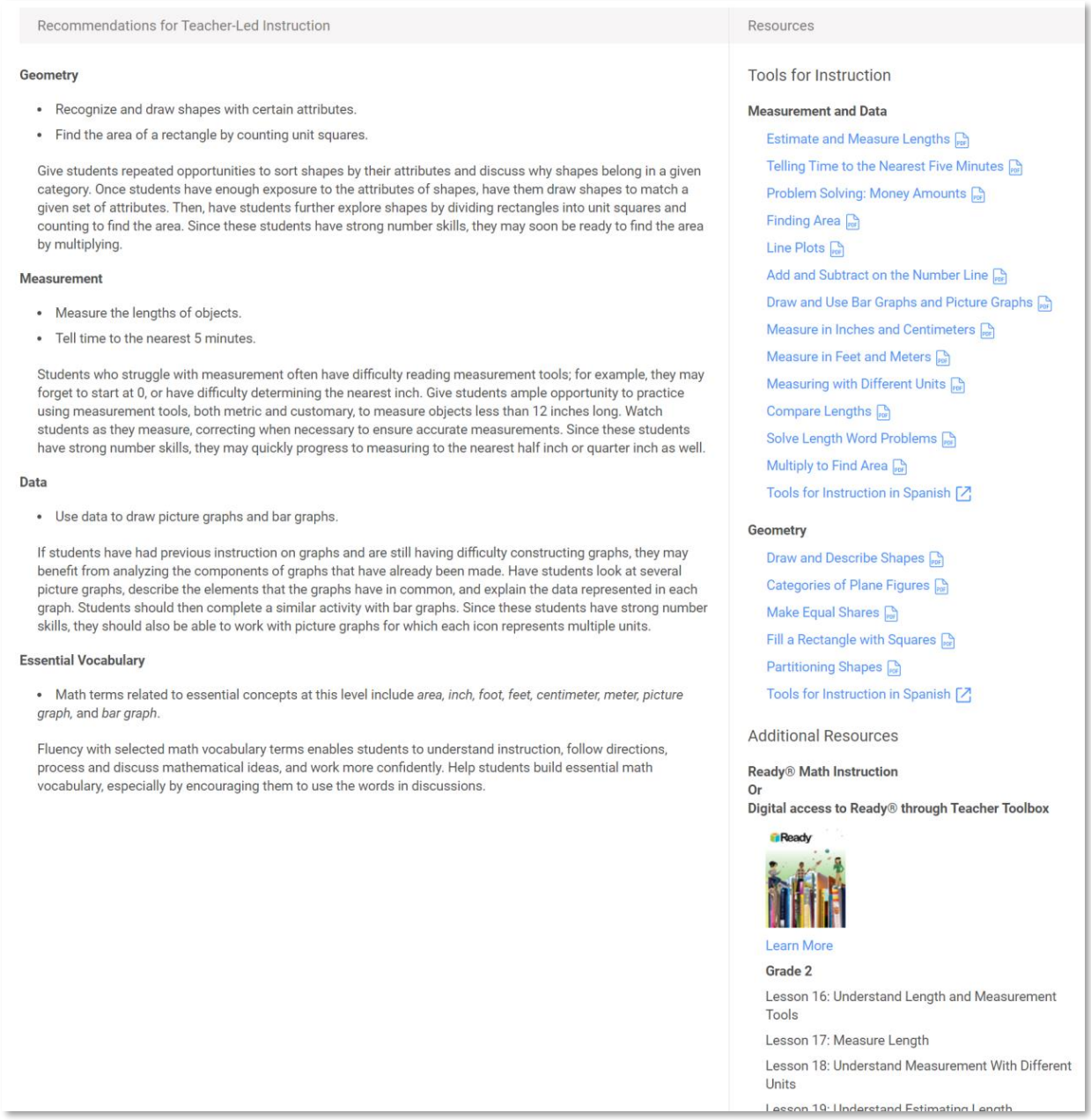
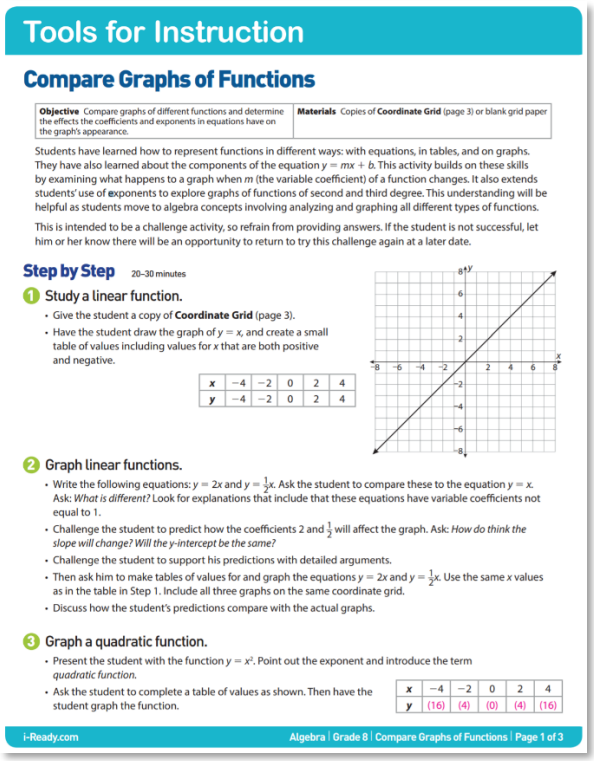


Figure 29. This excerpt from an Instructional Groupings report shows the recommendations for teacher-led instruction and additional resources.

Tools for Instruction

Tools for Instruction are short, targeted resources for teacher-led instruction that are tied directly to students' skills gaps and needs (Figure 30). These teacher-facing, downloadable PDF resources provide step-by-step lesson plans, complete with background on the targeted skill, a variety of ways to approach teaching or reinforcing the skill, and how to identify and remedy common student misconceptions. Tools for Instruction are designed for 20–30 minutes of instruction and are available for students performing at or below grade 8. The resources are also available in Spanish for mathematics (K–8) and reading (K–6).

The list of recommended Tools for Instruction is updated after each *Diagnostic* based on the student's or instructional group's performance. Teachers can use Tools for Instruction to provide individualized instruction aligned with the individual student's results on the *Diagnostic*, deliver differentiated small group instruction, and review or re-teach prerequisite skills during whole class instruction.



Tools for Instruction

Compare Graphs of Functions

Objective Compare graphs of different functions and determine the effects the coefficients and exponents in equations have on the graph's appearance.

Materials Copies of **Coordinate Grid** (page 3) or blank grid paper

Students have learned how to represent functions in different ways: with equations, in tables, and on graphs. They have also learned about the components of the equation $y = mx + b$. This activity builds on these skills by examining what happens to a graph when m (the variable coefficient) of a function changes. It also extends students' use of exponents to explore graphs of functions of second and third degree. This understanding will be helpful as students move to algebra concepts involving analyzing and graphing all different types of functions.

This is intended to be a challenge activity, so refrain from providing answers. If the student is not successful, let him or her know there will be an opportunity to return to try this challenge again at a later date.

Step by Step 20–30 minutes

1 Study a linear function.

- Give the student a copy of **Coordinate Grid** (page 3).
- Have the student draw the graph of $y = x$, and create a small table of values including values for x that are both positive and negative.

x	−4	−2	0	2	4
y	−4	−2	0	2	4

2 Graph linear functions.

- Write the following equations: $y = 2x$ and $y = \frac{1}{2}x$. Ask the student to compare these to the equation $y = x$. Ask: *What is different?* Look for explanations that include that these equations have variable coefficients not equal to 1.
- Challenge the student to predict how the coefficients 2 and $\frac{1}{2}$ will affect the graph. Ask: *How do think the slope will change? Will the y-intercept be the same?*
- Challenge the student to support his predictions with detailed arguments.
- Then ask him to make tables of values for and graph the equations $y = 2x$ and $y = \frac{1}{2}x$. Use the same x values as in the table in Step 1. Include all three graphs on the same coordinate grid.
- Discuss how the student's predictions compare with the actual graphs.

3 Graph a quadratic function.

- Present the student with the function $y = x^2$. Point out the exponent and introduce the term *quadratic function.*
- Ask the student to complete a table of values as shown. Then have the student graph the function.

x	−4	−2	0	2	4
y	(16)	(4)	(0)	(4)	(16)

i-Ready.com Algebra | Grade 8 | Compare Graphs of Functions | Page 1 of 3

Figure 30. Tools for Instruction guide teacher-led lessons that relate directly to the skills assessed in the *Diagnostic*. Shown here, the grade 8 mathematics excerpt is a sample resources that focus instruction on areas of need.

To view additional examples, please see the Tools for Instruction overview page of our website: https://www.curriculumassociates.com/products/*i-Ready*/*i-Ready*-learning/tools-for-instruction.

Prerequisites Report (Mathematics)

The Prerequisites report for mathematics provides a data-driven method of quickly and surgically addressing those prerequisites most likely to make grade level instruction successful (Figure 31.). This report informs unit/lesson planning by identifying essential prerequisite skills, potential student groupings, and recommended resources to be used during classroom instruction.

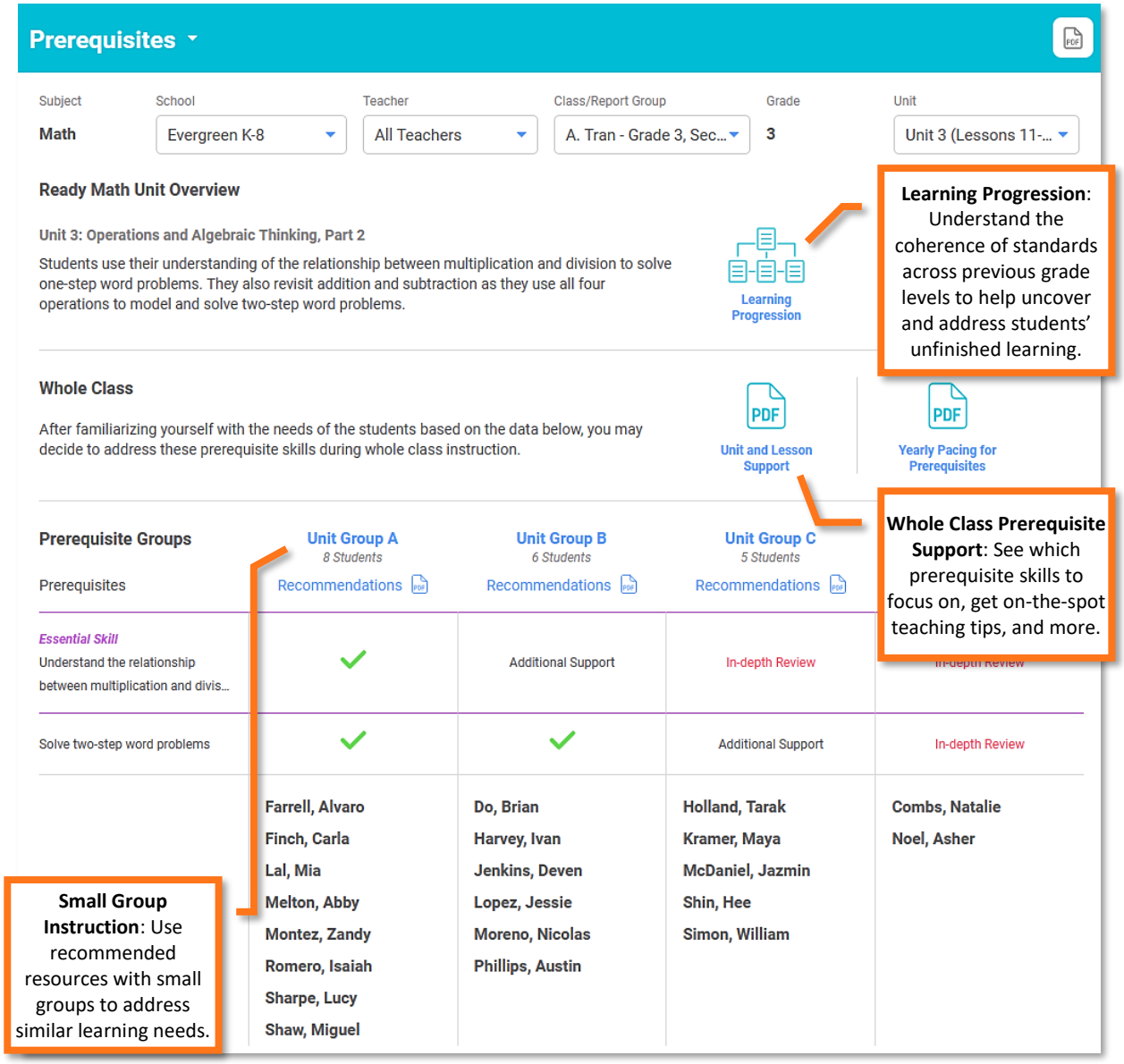


Figure 31. The Prerequisites report for mathematics includes whole class support, small group instruction resources, and learning progressions.

The Learning Progression (at the unit level) is found as a PDF in the Prerequisites report. The Learning Progressions were developed with significant influence from National Council of Teachers of Mathematics (NCTM), the Achieve the Core[1] Coherence Maps, outside experts, and standards-based guidance information.

The Learning Progression Chart illustrates the path of mathematical concept and skill acquisition across the grades, going back as many as two years. It shows the prerequisite skills required for a student to be successful in the work of their current grade level.

As indicated in Figure 31, the Prerequisites report also includes whole class prerequisite support and recommended resources for small group instruction. Teachers use the Prerequisites report and student results to determine which support students need. On-The-Spot Teaching Tips suggest additional scaffolding to support students with unfinished prerequisite learning as they engage with on-level work.

The full collection of prescriptive reports that inform data-driven early math instruction are described in the *i-Ready* List of Standard reports, beginning on page 95.

4. Math assessment assesses math concepts and fluency.

4a. Math assessment indicates when students have achieved proficiency in Math.

Math assessments indicate when students have achieved proficiency through the use of our Differentiated Growth Model. Please see the discussion of Differentiated Growth Model beginning on page 73 for details on how student math proficiency is reported in *i-Ready*, in addition to correlations of *i-Ready Diagnostic* to the Virginia SOLs provided in **Appendix D** for details of the math concepts and fluency that is assessed.

4b. Math assessment provides information to the teacher regarding the next steps for instruction.

Please see discussion of how *i-Ready* provides next steps for mathematics instruction beginning on 797474.

4c. Provides digital math resources for practice.

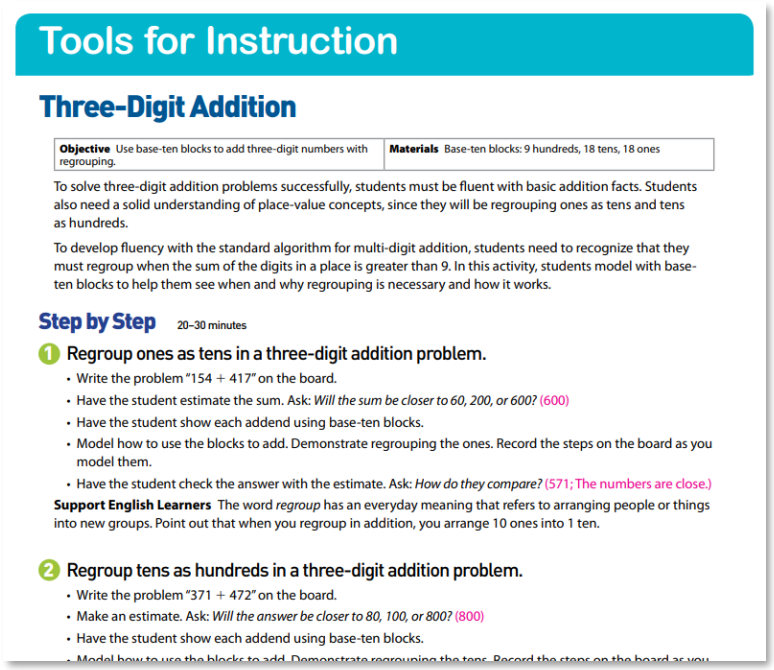
In addition to the Tools for Instruction provided with the purchase of *i-Ready Assessment*–which are short, targeted resources for teacher-led instruction that are tied directly to students' skills gaps and needs (described in more detail beginning on page 52)**—we have *included i-Ready Personalized Instruction* for mathematics as a cost option with this proposal. *i-Ready Personalized Instruction* for mathematics provides engaging interactive digital math resources for practice.**

[1] Curriculum Associates followed Achieve the Core's guidance for coherence maps to develop our Learning Progressions. See https://achievethecore.org/page/1118/coherence-map.

Tools for Instruction

Reports include suggested next steps for instruction and PDF Tools for Instruction lesson plans for the teacher to use during targeted instruction (small-group, whole-class, or individual). Included with an *i-Ready Assessment* license, Tools for Instruction (Figure 32) support diverse learning needs: they can be used for students who need additional support as well as students who are ready to advance their skills and explore content at a greater depth. Teachers can use Tools for Instruction to provide individualized instruction aligned with the individual student's results on the *Diagnostic*, deliver differentiated small group instruction, and review or re-teach prerequisite skills during whole class instruction.

Tools for Instruction are designed for 20–30 minutes of instruction and are available for students performing at grades K–8. The resources are also available in Spanish for mathematics for grades K–8.



Tools for Instruction

Three-Digit Addition

Objective Use base-ten blocks to add three-digit numbers with regrouping.

Materials Base-ten blocks: 9 hundreds, 18 tens, 18 ones

To solve three-digit addition problems successfully, students must be fluent with basic addition facts. Students also need a solid understanding of place-value concepts, since they will be regrouping ones as tens and tens as hundreds.

To develop fluency with the standard algorithm for multi-digit addition, students need to recognize that they must regroup when the sum of the digits in a place is greater than 9. In this activity, students model with base-ten blocks to help them see when and why regrouping is necessary and how it works.

Step by Step 20–30 minutes

1 Regroup ones as tens in a three-digit addition problem.

- Write the problem "154 + 417" on the board.
- Have the student estimate the sum. Ask: *Will the sum be closer to 60, 200, or 600?* (600)
- Have the student show each addend using base-ten blocks.
- Model how to use the blocks to add. Demonstrate regrouping the ones. Record the steps on the board as you model them.
- Have the student check the answer with the estimate. Ask: *How do they compare?* (571; The numbers are close.)

Support English Learners The word *regroup* has an everyday meaning that refers to arranging people or things into new groups. Point out that when you regroup in addition, you arrange 10 ones into 1 ten.

2 Regroup tens as hundreds in a three-digit addition problem.

- Write the problem "371 + 472" on the board.
- Make an estimate. Ask: *Will the answer be closer to 80, 100, or 800?* (800)
- Have the student show each addend using base-ten blocks.

Figure 32. Tools for Instruction guide teacher-led lessons that focus instruction on areas of need. Shown here is a grade 3 mathematics excerpt.

For additional information and to view more examples, see the Tools for Instruction overview page of our website: https://www.curriculumassociates.com/products/*i-Ready*/*i-Ready*-learning/tools-for-instruction.

i-Ready Personalized Instruction

i-Ready Personalized Instruction delivers powerful online lessons that motivate students on their paths to proficiency and growth. Driven by insights from the *Diagnostic*, *i-Ready's* online lessons provide tailored instruction that meets students where they are in their learning journey and encourages them as they develop new skills. This individualized instruction is complemented by easily accessible teacher resources that enable educators to target the specific skills with which students need the most support in their whole class, small group, and one-to-one instruction.

Once each student has completed their first *Diagnostic* assessment, *i-Ready Personalized Instruction* builds a unique lesson plan consisting of online instructional lessons based on assessment performance, with a personalized starting point for every student. *i-Ready's* online lessons span grade levels K–8 in mathematics. The teacher may adjust any student's position within the recommended sequence of lessons, and may add Teacher-Assigned Lessons for students to ensure they develop skills in conjunction with the core curriculum.

> **"I love how you can target the teacher-added lessons and domains to fit a specific student's needs."**
> **—Educator and *i-Ready* User**

When the student completes a subsequent *Diagnostic* assessment, *i-Ready* automatically adjusts the student's position within the recommended sequence of lessons based on their most recent *Diagnostic* results. *i-Ready Personalized Instruction* placement also considers the student's recent lesson progress. Any Teacher-Assigned Lessons will remain part of the student's lesson plan. *i-Ready* meets students in their zone of proximal development, providing the guidance and scaffolding they need to advance.

We designed *i-Ready Personalized Instruction* for flexible delivery: during school, before/after school, in-class/pull-out, summer school, at home, computer lab, and a host of other settings. We recommend that the differentiated online instruction be used for a minimum of 45 minutes per week in math.

Designed to Motivate

Many children are accustomed to a steady stream of interaction with digital media. As a result, today's students—often multi-tasking outside of school—may have a lower threshold for boredom. *Personalized Instruction* fosters student engagement through dynamic, interactive content and program components that are visually appealing and engaging (Figure 33). The *Personalized Instruction* modules promote active student participation in learning. Children interact with the program every 30 seconds or less by clicking on answers, using online tools, typing in text or numbers, and manipulating virtual models.

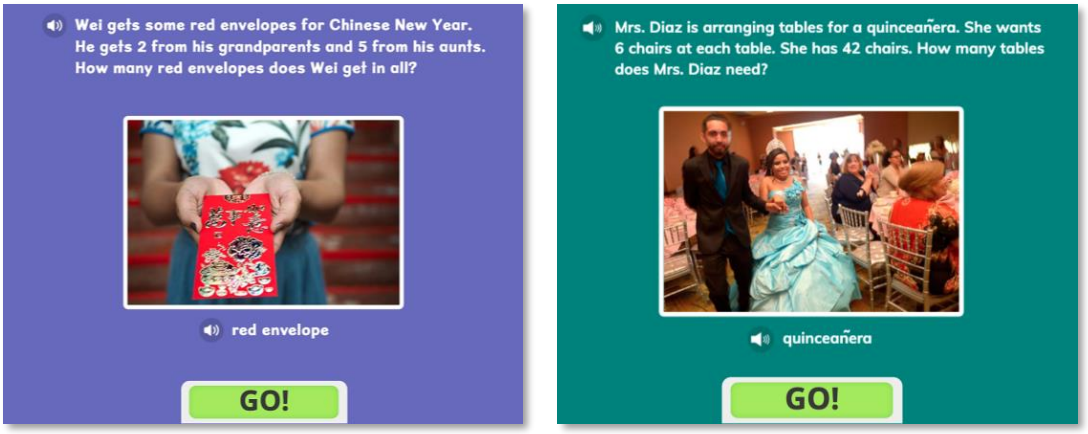


Figure 33. With *i-Ready Personalized Instruction*, students learn a skill or concept through fun and engaging content. Shown above are excerpts from mathematics lessons: grade 1 (left) and grade 3 (right).

i-Ready Learning Games

i-Ready's fun and interactive Learning Games (Figure 34) strengthen understanding of mathematical concepts and foster a positive relationship with challenging elementary mathematics standards. For students in grades K–8, the games are used to supplement existing mathematics instruction and provide mathematics fluency and skills practice. Learning Games are available in both English and Spanish.

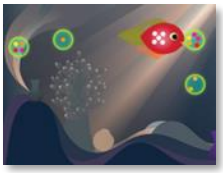
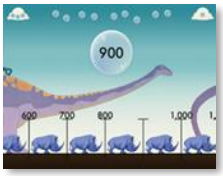
The range of Learning Games available to a student is determined by the student's chronological grade level. The levels available within those games are determined by the student's placement on the most recent mathematics *Diagnostic*, as well as their performance on the games. Adaptivity within Learning Games meets students where they are and provides challenges, scaffolding, and feedback to build skills and confidence.



Figure 34. In this Learning Game—*Cloud Machine*—students build a conceptual understanding of fractions by solving visual puzzles. Cloud Machine was named a Winner of the Academics' Choice Award.

Learning Games are available at district and teacher discretion; the games can be turned off at the account level, or teachers can turn them off for an entire class or at the student level.

Each Learning Game is briefly described in the following.

	**Hungry Guppy** (K–2) In this precursor to Hungry Fish, students learn to identify small numbers of objects, fluently add sets of shapes, and recognize numerals up to six. Diverse colors and dot arrangements reinforce early number sense. Levels progress adaptively based on player performance.
	**Hungry Fish** (K–8) Students combine integer bubbles to feed a fish with a specific target number, reinforcing the concept that there are multiple ways to compose and decompose a number by finding sums and differences. The range of target numbers includes integers from 3–100, multiples of tens, multiples of hundreds, and negative numbers, as well as a range of time pressures.
	**Zoom** (K–5) Students move left and right and zoom in and out of the world's most interactive number line to find missing values, compare numbers, and build number sense. Animals corresponding to each order of magnitude make the concept of place value concrete—from amoebas in the thousandths, to frogs in the ones, to dinosaurs in the thousands.
	**Bounce** (K–8) Students guide a bouncing ball to compare numbers and find the location of integers, fractions, percentages, decimals, and pie charts on a number line. Scaffolded hints help students build a stronger number sense.
	**Match** (K–8) Students match tiles of equal value and learn to interpret diverse visual and symbolic representations of integers, sums, differences, products, quotients, and fractions while improving working memory in the context of valuable fluency practice.
	**Pizza** (2–5) Students run a virtual pizza store. They set prices, compare vendors for ingredients, and perform quick mental mathematics to calculate the price of customer orders. Adaptive timing gives students appropriately challenging fluency practice with addition, multiplication, and multistep problems.
	**Cupcake** (2–8) Students run a cupcake delivery business, in which they need to interpret diverse word problems and engage in practice with basic economics, proportions, and the coordinate system. Students budget for ingredients, take increasingly complex orders, and make deliveries on the coordinate plane of a city map.



Cloud Machine (3–8) Students solve puzzles featuring concrete, visual representations of fractional spaces. The goal is to fill a cloud to a precise level of liquid by opening and closing a series of gates. The game helps students conceptually understand fraction recognition, equivalence, and addition and subtraction of fractions with the same and different denominators.

5. Assessments are efficient, have high reliability and validity, and are validated through independent research.

i-Ready Diagnostic is designed to be administered three times per school year as a screener/benchmark assessment. Because one administration of *i-Ready Diagnostic* provides such rich data, educators may realize very real time and resource savings because they will no longer need to use multiple other assessments.

Assessments are Efficient

***i-Ready* helps teachers efficiently and effectively provide targeted instruction to help each student reach their academic potential and monitors how students are progressing in reading and mathematics over time.**

The overarching design principles of the *i-Ready* program are that:

- Assessment should be streamlined, directly tied to actionable data, and offer multiple options on one platform to reduce the burden on teachers—thereby resulting in less testing time and more actionable data.

The core component of *i-Ready Assessment* is *i-Ready Diagnostic*, a computer-adaptive assessment that provides a deep, customized evaluation of every student and tracks student growth and performance consistently and continuously over a student's entire K–12 career. By dynamically adapting based on student response patterns, *i-Ready Diagnostic* derives large amounts of information from a limited number of test items. This allows the *Diagnostic* to more accurately and efficiently pinpoint students' needs and helps teachers better understand the root causes behind student challenges. This is especially beneficial for identifying gaps spanning back multiple years, determining where students are ready for further challenge, and providing differentiated instruction.

High reliability and validity - validated through independent research

As discussed in our responses to Section II A, parts 1–4, beginning on page 49, *i-Ready Diagnostic* automatically and accurately identifies each student's overall and sub-skill needs by domain in reading and math, providing a valid and reliable measure of student growth with detailed *Diagnostic* results and personalized next steps for instruction.

While the *i-Ready Assessment* suite includes multiple forms of ongoing progress monitoring, the use of the full adaptive *Diagnostic* (which is the core component of *i-Ready*) three times per school year provides for both academic screening and growth monitoring – and independent research on *i-Ready Diagnostic* and *Growth Monitoring* assessments has validated high reliability and validity on both assessments in reading and in math. Third party research supporting the reliability and validity of the *Literacy Tasks* and other optional assessments included in the *i-Ready Assessment* suite is ongoing.

A summary of a few *i-Ready* independent reviews and efficacy studies, including independent and third-party research, is provided below and also available at https://www.curriculumassociates.com/research-and-efficacy/*i-Ready*-evidence-impact **Appendix F** provides additional details about these reviews.

i-Ready Diagnostic has been extensively researched and has demonstrated to have strong reliability and validity evidence. In designing, developing, and conducting research on *i-Ready*, we have followed guidelines outlined by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education for best practices in assessment development.

Documentation of validity and reliability evidence in accordance with the Standards for Educational and Psychological Testing is provided in the proprietary *i-Ready Assessment Technical Manual* and the *i-Ready Literacy Tasks Technical Manual*, which are available upon request. The Technical Manual also offers detailed information about supported purposes, item and test development procedures, scoring, equating, scaling, standard setting, piloting, reporting, and interpreting test data, among other topics. Teachers and administrators can be assured that *i-Ready* is an accurate, valid, and reliable measure of what students know and what they should work on next.

Third Party Reviews and Research

National Center on Intensive Intervention (NCII)

The National Center on Intensive Intervention (NCII) evaluated *i-Ready Diagnostic* as an Academic Screening Tool, and both *i-Ready Diagnostic* and *i-Ready Growth Monitoring* as an Academic Progress Monitoring Tool. For mathematics, the programs were evaluated for grades 3–8, and for ELA/reading, the programs were evaluated for grades K–8. The full NCII evaluation for mathematics and reading has been included in **Appendix F**.

- In Academic Screening, *i-Ready Diagnostic* in mathematics received the highest ratings for classification accuracy, reliability, and validity in all grades evaluated; *i-Ready Diagnostic* in reading received the highest ratings in classification accuracy, reliability, and validity in nearly all grades evaluated. The full results are posted on the NCII website at: https://charts.intensiveintervention.org/ascreening.

- In Academic Progress Monitoring, *i-Ready Diagnostic* and *Growth Monitoring* in mathematics received the highest ratings for reliability, validity, and alternate forms in all grades evaluated; *i-Ready Diagnostic* and *Growth Monitoring* in reading received the highest ratings in reliability, validity, and alternate forms in all grades evaluated. The full results are posted on the NCII website at: https://charts.intensiveintervention.org/aprogressmonitoring.

The Human Resources Research Organization (HumRRo) and Century Analytics

The Human Resources Research Organization (HumRRO) and Century Analytics, two third-party research firms, partnered together in order to examine the impact of *i-Ready* during the 2018–2019 school year. Using a quasi-experimental design with propensity score matching designed to meet ESSA Level 2 criteria, HumRRO and Century Analytics examined the impact of *i-Ready* on the reading and mathematics achievement of students in Grades K–8. Using hierarchical linear modeling, HumRRO found that students in all grades and subjects using *i-Ready* experienced statistically significantly higher spring scores than students not using *i-Ready*. In addition, the study authors found that these positive results generally held for students who are Black and Latino, ELs, students with disabilities, and students with socioeconomic disadvantages.

Buros Center for Testing

i-Ready Assessment and Personalized Instruction has been reviewed by the Buros Center for Testing[2] (http://buros.org/). In the analysis, one Buros Center reviewer noted:

> **"The *i-Ready* K–12 *Diagnostic* and K–8 *Instruction* is well designed and executed. The heart of the program—the pool of test items—is superb."[3]**

Additional Reviews, Research and Efficacy Studies

- Learning List™ has also independently reviewed *i-Ready* (https://www.learninglist.com).
- The research detail for 17 *i-Ready* efficacy studies is available at https://www.curriculumassociates.com/research-and-efficacy/*i-Ready*-evidence-impact#Research_Detail
- As supported by internal and external research, *i-Ready* is an effective solution for all learners. Tour *i-Ready* online at https://www.curriculumassociates.com/products/*i-Ready*/tour, where narrated program overviews, sample reports and lessons, research, client success stories, and customer testimonials are all available for review.

2 The Buros Center operates as an independent, non-profit organization within the University of Nebraska-Lincoln.

3 Bunch M.B. [Test review of *i-Ready* K–12 *Diagnostic* and K–8 *Instruction*]. In J. F. Carlson, K. F. Geisinger, & J. L. Jonson. (Eds.), *The Twentieth Mental Measurements Yearbook.* Retrieved from http://marketplace.unl.edu/buros/.

6. Assessments can be administered in a quick and efficient manner (can screen a whole class within a single class period).

Administration of the *Diagnostic* for reading and mathematics

i-Ready Diagnostic's individually administered, untimed assessment occurs entirely online via a compatible internet-enabled device with headphones or speakers. An automated system check and technical requirements are available at https://login.*i-Ready*.com/login/support.

The assessment takes students 25–75 minutes per subject to complete. This range is approximate because of the wide range of performance levels: some students may need additional time, while students in lower grades will generally take less.

The *Diagnostic* may be broken into multiple sessions; *i-Ready* saves each student's place upon exiting. We recommend multiple testing sessions so students do not feel rushed and can produce their best work. During the *Diagnostic*, students are provided intermittent breaks to maximize their performance and promote their engagement with the assessment.

Curriculum Associates conducted research into the time it takes students to complete the *Diagnostic* using data from the millions of students who completed a *Diagnostic* during the 2017–2018 school year. Our goal was to provide insight into the duration of the assessment so that teachers can allocate appropriate time for testing and ensure students have ample time to complete the *Diagnostic*—but not so much time that instructional time is impacted more than necessary. Our research found that the time it typically takes students to complete the *Diagnostic* varies by grade level. As a result, we have organized the duration guidance in by grade-level band.

Table 2. *i-Ready Diagnostic* Scheduling Information and Duration Guidance

Grade(s)	When to Schedule the First *Diagnostic*	How Long to Schedule for Each *Diagnostic* (per Subject)*	Estimated Total Active Testing Time**
K	Four to six weeks into the school year	Three 20-minute sessions	An average student takes 25–35 minutes of active testing time to complete the *Diagnostic* for each subject. The vast majority of students complete in fewer than 45 minutes.
1	Start as soon as possible†	Two 20- to 30-minute sessions	
2–5	Start as soon as possible†	Two 40- to 50-minute sessions	An average student takes 40–60 minutes of active testing time to complete the *Diagnostic* for each subject. The vast majority of students complete in fewer than 80 minutes.

Table 2. *i-Ready Diagnostic* Scheduling Information and Duration Guidance			
Grade(s)	**When to Schedule the First *Diagnostic***	**How Long to Schedule for Each *Diagnostic* (per Subject)***	**Estimated Total Active Testing Time****
6–8	Start as soon as possible†	Plan number and length of testing session based on your schedule††	An average student takes 60–75 minutes of active testing time to complete the *Diagnostic* for each subject. The vast majority of students complete in fewer than 90 minutes.

* We recommend 12–18 weeks between each *Diagnostic* administration, including grade K. Scheduling recommendations are based on average active testing time to complete the *Diagnostic* for each subject, plus logging in, viewing tutorial videos, etc. Some students may take more or less time to complete the *Diagnostic*, depending on a variety of factors. We do not recommend students at any grade level try to complete the *Diagnostic* in one session.

** Active testing time statistics only refer to active time spent taking the assessment and do not include account login time, tutorial videos, or the time after a session has gone inactive (after 29 minutes of inactivity on a single question).

† Administer the *Diagnostic* as soon as possible for your district/school, based on priorities and needs of your community.

†† Most students complete within 60–90 minutes (e.g., two 45-minute sessions). Some will need additional time.

i-Ready Diagnostic

i-Ready Diagnostic is individually administered and untimed. The *Diagnostic* may be broken into multiple sessions; *i-Ready* saves each student's place upon exiting. We recommend multiple testing sessions so students do not feel rushed and can produce their best work. During the *Diagnostic*, students are provided intermittent breaks to maximize their performance and promote their engagement with the assessment.

Curriculum Associates conducted research into the time it takes students to complete the *Diagnostic* using data from the millions of students who completed a *Diagnostic* during the 2017–2018 school year. Our goal was to provide insight into the duration of the assessment so that teachers can allocate appropriate time for testing and ensure students have ample time to complete the *Diagnostic*—but not so much time that instructional time is impacted more than necessary.

Our research found that, on average, the *Diagnostic* takes students 25–75 minutes per subject to complete, and the time it typically takes students varies by grade level. We have organized the duration guidance in Table 2. *i-Ready Diagnostic* Scheduling Information and Duration Guidance on page 89 by grade-level band.

i-Ready Standards Mastery

i-Ready Standards Mastery offers two assessments per standard, with 6–10 items per test. An assessment takes approximately 15 minutes per standard to complete.

i-Ready Growth Monitoring

i-Ready Growth Monitoring assessments have approximately 20 questions and take about 15 minutes per subject.

i-Ready Literacy Tasks

The one-on-one administered *i-Ready Literacy Tasks* take an average of one- to two- minutes to administer to a student. Teachers are encouraged to allot two to three minutes per student (and up to 10 minutes for the passage reading fluency task) to allow time for instructions, guided practice, and scoring.

7. Assessment provides immediate results based on national norms.

Norm scores, which specify a student's ranking compared to students in the same grade, are based on a specific population of students who took *i-Ready Diagnostic*. The 2020 normative samples used to create our national percentile rank scores include 6.4 million *Diagnostic* assessments taken by over three million students from thousands of schools across the U.S. during the 2018–2019 school year. This specific population was a nationally representative sample according to the latest available data from the National Center for Educational Statistics (NCES).

To ensure that the sample for each grade (and in aggregate) closely represented the national student population and typical student performance at that grade level, the normative samples were stratified with the following factors considered:

- Students in the normative sample were administered *i-Ready* as a regular academic *Diagnostic* tool throughout the entire school year rather than as a trial program.
- *i-Ready* was administered to the general student population in the school and not to just a special group of students (e.g., special education or students considered to be academically at risk), as the latter would have resulted in oversampling low-achieving students.
- Schools included in the normative sample were diverse both geographically and in terms of student demographics and socioeconomic status, such that the samples approximated the national population as represented by the NCES.

Fall, winter, and spring norms are available for *i-Ready Diagnostic* assessments for grades K–8. Fall norms are available for grades 9 and 10; we are continuing to evaluate when we can add winter and spring high school norms in the future.

8. Ability to track student assessment data that supports classroom interventions.

i-Ready Reports: Data that Supports Interventions

i-Ready reports track student assessment data and inform instructional decision-making, assisting teachers in providing each student what they need to progress to the next level.

To illustrate the breadth of reporting that supports classroom interventions, a brief selection of reports is described below. For a full listing of reports, see Table 3 on page 95.

- The ***Diagnostic* Results (Student) report** gives teachers deep insight into the needs of an individual student. The report presents the student's detailed *Diagnostic* results; generates an overall student developmental analysis that describes each student's strengths and areas of need, including a list of what the student "Can Do" in each domain; offers recommendations on instructional resources tailored to next steps; and reports progress toward the student's Typical and Stretch Growth measures.
- The **Virginia Standards report** gives an evaluation of how the student is performing against the English Standards of Learning for Virginia Public Schools/Mathematics Standards of Learning for Virginia Public Schools. The report includes point-of-use descriptions of the aligned standards and related skills.
- The **Instructional Groupings (Class) report** guides teachers in grouping students so that those who need support with the same skills can get the most out of small-group instruction. It affords educators flexibility in categorizing students and targeting efficient and effective remediation.
- The ***Diagnostic* Growth (District) report** shows how students in the district are progressing toward growth measures. The report is available after students have taken *i-Ready Diagnostic* more than one time and is available for the current and one prior academic year.

Data Chat Guides

Helpful during team meetings and Professional Learning Communities, Data Chat guides in the Teacher and Leader Data Chat Pack (Figure 35) help teachers and administrators analyze data and plan next steps for instruction. The guides promote collaborative conversations that identify students' strengths, areas for growth, goals, and specific actions. Data Chat guides are available from *i-Ready® Central*.

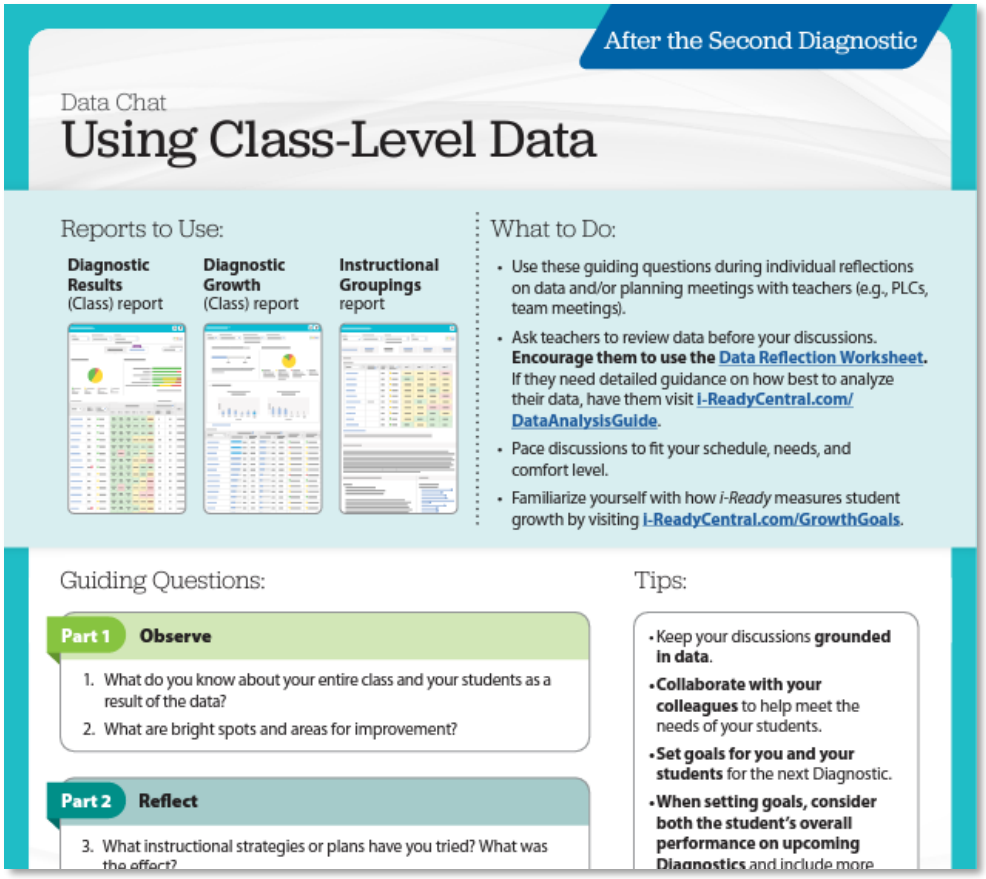


Figure 35. Data Chat guides (excerpt shown here) promote discussion of class-level data among educators, helping them to unpack what the data means and decide what to do about it.

For additional information about Data Chats, please refer to http://*i-Ready*central.com/articles/data-chats/.

Section II B. Specific Requirements

1. Reporting requirements

The ultimate goal of *i-Ready* reporting is to provide actionable, detailed reports that are useful to administrators and teachers as they support student learning. Going far beyond merely compiling scores and time-on-task, *i-Ready's* intuitive reports provide developmental analyses, group students who need additional support with the same concepts, make instructional recommendations to target specific skills, and monitor progress and growth as students follow their individualized instructional paths. *i-Ready* reports support Response to Intervention by providing data that maps student performance to intervention tiers and assigns students to appropriate instructional groups. Reports include suggested next steps for instruction and PDF Tools for Instruction lesson plans for the teacher to use during small-group or whole-class instruction.

Embedded in the program and included with the license fee, *i-Ready's* robust analysis platform (Figure 36) presents all data in practical, intuitive reports that are available to teachers as soon as students complete an activity in the system. Always up-to-date, reports are readily accessible at four levels:

1) District- and 2) School-Level Reports—A district- or school-level view gives administrators a clear indication of overall performance and the extent of intervention needed in the district. This real-time visibility enables immediate and effective course corrections.

3) Class-Level Reports—Class reports provide teachers with a wealth of information to monitor and drive student growth. Teachers can quickly see which students need intervention, the key areas to target for each student, and how to group students for instruction.

4) Student-Level Reports—*i-Ready* provides teachers with a detailed, easy-to-read analysis of every student's proficiency levels. Reports detail which skills students have mastered and those skills to prioritize next for instruction, thereby supporting success for every student. The For Families reports are specifically designed to put student performance data into layperson terms to help facilitate teacher-family conversations.

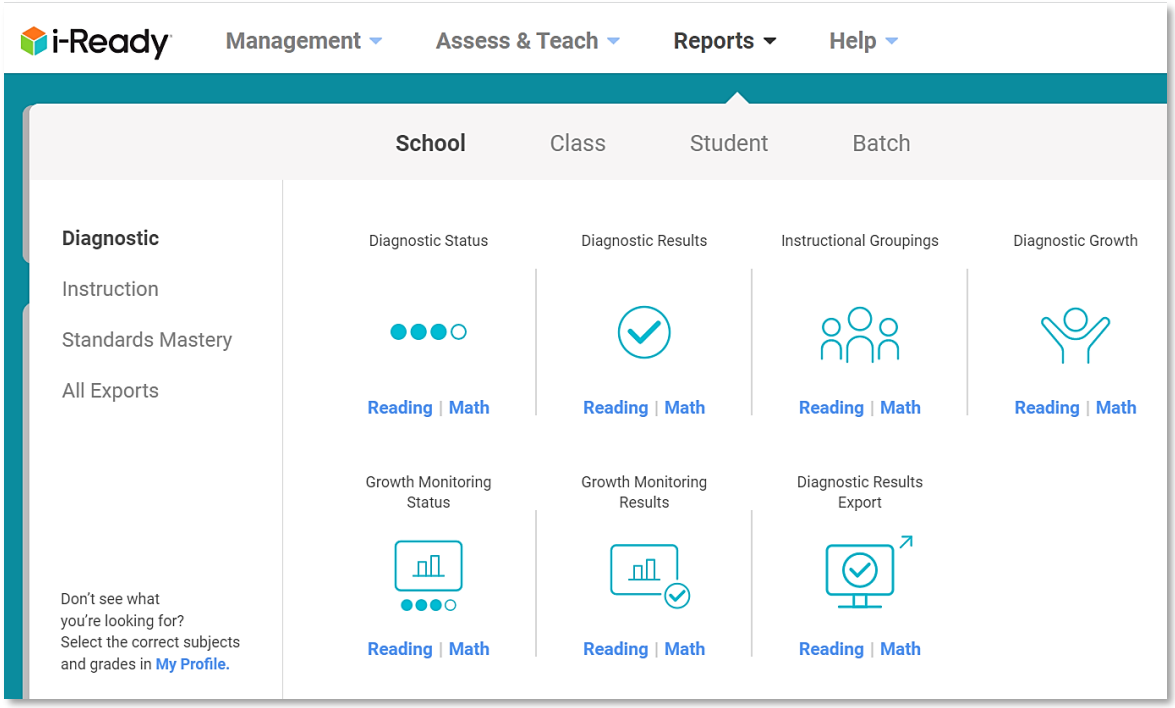


Figure 36. With *i-Ready*'s intuitive interface, educators can easily access reports that show actionable information and provide instructional resources in a quick, digestible format. This example shows the school-level reports available to school administrators.

> **"*i-Ready* provides teachers with clear and informative reports that aid in guiding instruction and communicating with parents. The data is at the teacher's fingertips 24/7."**
> **—Learning Facilitator and *i-Ready* User**

All reports may be downloaded in PDF format and printed. The onscreen and PDF versions of reports are formatted differently to ensure clean views and pagination when printed. School- and district-level data can be exported as CSV files and then saved to Excel or other CSV-compatible applications for external analyses. *i-Ready Diagnostic* data for the three prior school years is available to educators, based on the District and student's use of *i-Ready* in prior years[4].

Once logged in to *i-Ready*, evaluators may view all reports available to educators. Administrators have access to student, class, school, and, when applicable, district reports. Teachers have access to reports for their students and classes.

List of Standard Reports

Table 3 presents the standard reports available within *i-Ready* for Reading and mathematics grades K–8. Sample reports are available online at https://www.curriculumassociates.com/products/i-Ready/assessment/Diagnostic. (See "See Exactly Where Your Students Are" to view representative reports.)

Table 3. Standard Reports for Grades K–8, Virginia

Report	Description	Student-Level	Class-Level	School-Level	District-Level
i-Ready Assessment					
Diagnostic Results (K–8)	• Student-Level: Presents *Diagnostic* results, including scale score, placement level, norm scores, Lexile/Quantile measure, Typical and Stretch Growth, with what the student "Can Do" and instructional next steps. • Class-, School-, and District-Level: Provides student performance at class/school/grade levels, enabling administrators to inform intervention strategies and resources.	✓	✓	✓	✓
Diagnostic Growth (K–8)	• Student-Level: Shows Typical and Stretch Growth measure and progress toward each measure for each student. • Class-, School-, and District-Level: Shows how students in a class/school/district are progressing toward growth measures along with the median percent towards Typical Growth for a grade by class, school, or district.	✓	✓	✓	✓

[4] If a student switches to a different school within the same district, their data will show up in the Historical Results reports. If a student switches to a different district or is new to the district, the data will not be present.

Table 3. Standard Reports for Grades K–8, Virginia					
Report	**Description**	**Student-Level**	**Class-Level**	**School-Level**	**District-Level**
Diagnostic Status (K–8)	• Class-Level: Contains each student's *Diagnostic* status (not assigned, not started, in progress, or completed) to help teachers track student completion of the *Diagnostic*. • School- and District-Level: Administrators can sort by grade, class, or report group, and view enrollment numbers.		✓	✓	✓
Diagnostic Results Comparison View (K–8)	• School- and District-Level: Administrators can add a prior *Diagnostic* view, producing parallel visual analyses for comparison of student gains between *Diagnostic*s. It provides insight into student performance on state summative assessments to aid planning.			✓	✓
Virginia Standards Performance (K–8)	• Student- and Class-Level: Evaluates how the student/class is performing against the standards based on their performance on the *Diagnostic.* Includes point-of-use descriptions of the aligned standard(s) and related skill.	✓	✓		
Historical Results (K–8) If *i-Ready* was used in previous year(s)	• Student-Level: Provides a comprehensive view of student performance for up to three of the most recent academic years, including *Diagnostic* scores and placements, growth progress, and lesson data (if applicable). • Class-Level: Shows how a class progressed through the *Diagnostic* in the previous year, helping educators with analysis and planning.	✓	✓		
Instructional Groupings (K–8)	• Class- and School-Level: Groups students in each class/grade level so those who need support with the same skills can get the most out of small-group instruction. It provides instructional priorities and resources.		✓	✓	

Table 3. Standard Reports for Grades K–8, Virginia					
Report	**Description**	**Student-Level**	**Class-Level**	**School-Level**	**District-Level**
Growth Monitoring Results (K–8)	• Student-Level: Provides information about how much growth a student should be making and whether the student is on track. • Class-, School-, and District-Level: Monitors likelihood of a class/school/district meeting their Typical Growth, Stretch Growth, and on-grade level measures.	✓	✓	✓	✓
Growth Monitoring Status (K–8)	• Class-, School-, and District-Level: Contains each student's *Growth Monitoring* status (not started, in progress, or completed); and expiration alerts.		✓	✓	✓
Standards Mastery Results by Test (2–8)	• Student-Level: Helps teachers understand student performance on each skill/standard assessed. It displays correct answers, student answers, and common misconceptions. • Class-, School, and District-Level: Shows class/school/district performance on each skill/standard assessed with the number of students performing at each level (Beginning, Progressing, Proficient), per standard and overall. It also provides student-level details.	✓	✓	✓	✓
Standards Mastery Results Year-to-Date (2–8)	• School- and District-Level: Provides a view of school/district performance on skills/standards assessed during the current academic year. Data includes average score, percentage performing at each level, and number who completed or were assigned the assessment.			✓	✓
Standards Mastery Status (2–8)	• Class-Level: Contains each student's *Standards Mastery* status (not started, in progress, or completed with assessment score); and expiration alerts.		✓		

Table 3. Standard Reports for Grades K–8, Virginia					
Report	**Description**	**Student-Level**	**Class-Level**	**School-Level**	**District-Level**
Prerequisites (K–8) Mathematics only	• Class-Level: Informs unit/lesson planning by identifying essential prerequisite skills, potential student groupings, and recommended instructional resources in relation to upcoming grade-level content.		✓		
Grade-Level Scaffolding (3–8) Reading only	• Class-Level: Helps teachers prepare students for an upcoming skill they are about to teach with suggested reading buddies, instructional groupings, and standards-based instructional scaffolds.		✓		
Assessment of Spanish Reading (K–6) Reading only	• Class-Level: Provides a single source for monitoring test completion, reviewing results, and accessing instructional resources. It provides overall placements and domain-specific data to inform instruction.		✓		
Literacy Tasks (K–6) Reading only	• Student-Level: Allows educators to view how students are performing on *Literacy Tasks*. It combines all task types into one report and allows for educators to view Benchmark assessments alongside Progress Monitoring.	✓			
For Families (K–8)	• Student-Level: Provides families with their student's overall performance, scale scores, placement levels, Stretch and Typical Growth goals (K–8), and definitions of terms.	✓			
i-Ready Personalized Instruction					
Personalized Instruction Summary (K–8)	• Student-Level: Shows student performance on lessons: time spent and progress by domain. It also alerts educators when further support in a specific domain is needed. • Class-, School-, and District-Level: Provides a comprehensive look at student activity by level. Administrators see average time on task, pass rates, and can sort by group.	✓	✓	✓	✓

Table 3. Standard Reports for Grades K–8, Virginia					
Report	**Description**	**Student-Level**	**Class-Level**	**School-Level**	**District-Level**
Personalized Instruction by Lesson (K–8)	• Class-Level: Allows teachers to view all lessons students have recently completed to identify similar needs and common areas of understanding. It can be filtered by Teacher-Assigned or *i-Ready* Assigned lessons.		✓		
Learning Games					
Learning Games Playtime (K–8) Mathematics Only	• Measures the number of minutes each student has spent playing Learning Games. It also displays average number of Playtime minutes for the class as a whole.		✓	✓	✓
Learning Games Skills Progress (K–8) Mathematics Only	• Provides a real-time snapshot of how students are performing across individual math standards. It allows educators to see each student's performance by domain.		✓	✓	✓
Learning Games Factors of Learning (K–8) Mathematics Only	• Provides an assessment of how students approach games across four key factors of learning (Growth Mindset, Confidence, Productive Strategy, and Self-Regulation).		✓	✓	✓

Table 4 presents school- and district-level reports that can be exported as CSV files for external analyses.

Table 4. *i-Ready* Standard Exports			
Report	**Description**	**School-Level**	**District-Level**
i-Ready Assessment			
Diagnostic & Instruction Export (K–8)	• Provides details regarding individual student performance in *i-Ready*, including typical and stretch growth targets, as well as Instructional Grouping.	✓	✓
Diagnostic Results Export (K–8)	• Provides the same details as the *Diagnostic* & Instruction Export, but in fewer columns, making it easier to manage and view. It includes a Relative Placement column with 5-Level Placements.	✓	✓

Table 4. *i-Ready* Standard Exports			
Report	**Description**	**School-Level**	**District-Level**
Literacy Tasks Exports (K–6) Reading Only	• Features separate exports for all student *Literacy Tasks* Benchmark data, Progress Monitoring Passage Reading Fluency data, and Progress Monitoring data from other *Literacy Tasks*.	✓	✓
Dyslexia Screener Export (K–3) Reading Only	• Includes students whose scores on the *Diagnostic* for reading fall below the *i-Ready* Reading Difficulty Indicator cut score. It allows administrators to examine phonological awareness (K–1), phonics (2–3), and comprehension scores to understand whether reading performance patterns are consistent with risk factors for dyslexia.	✓	✓
Growth Monitoring Results Export (K–8)	• Allows administrators to track specific students to understand their likelihood of reaching annual Typical Growth and annual Stretch Growth goals throughout the year. (Only if administered.)	✓	✓
Standards Mastery Results by Test Export (2–8)	• Provides individual student scores on each *Standards Mastery* assessment. (Only if administered.)	✓	✓
Standards Mastery Results YTD Export (2–8)	• Provides individual student scores on each standard assessed throughout the year. (Only if administered.)	✓	✓
Assessment of Spanish Reading Export (K–6) Reading Only	• Provides student data on all completed Spanish Reading assessments. (Only if administered.)	✓	✓
i-Ready Personalized Instruction			
Instructional Usage Export (K–8)	• Tracks how much time individual students have spent in online *Personalized Instruction*, including monthly time-on-task and percent lessons passed data.	✓	✓
Personalized Instruction by Lesson Export (K–8)	• Allows administrators to review all available data by lesson report for all students in one CSV file. Lessons are identified as *i-Ready*-Assigned versus Teacher-Assigned so administrators can understand how students are performing for each assigned lesson type.	✓	✓

i-Ready Report Selector Helps Educators Find the Data They Need

The *i-Ready* Report Selector empowers educators to find the assessment data they need. Available from our user-support website, *i-Ready® Central*, and the Teacher and Leader Success Guides, the Report Selector answers frequently asked questions about reports and suggests which reports to use for obtaining specific information (Figure 37). This feature is available at the student, class, school, and district levels.

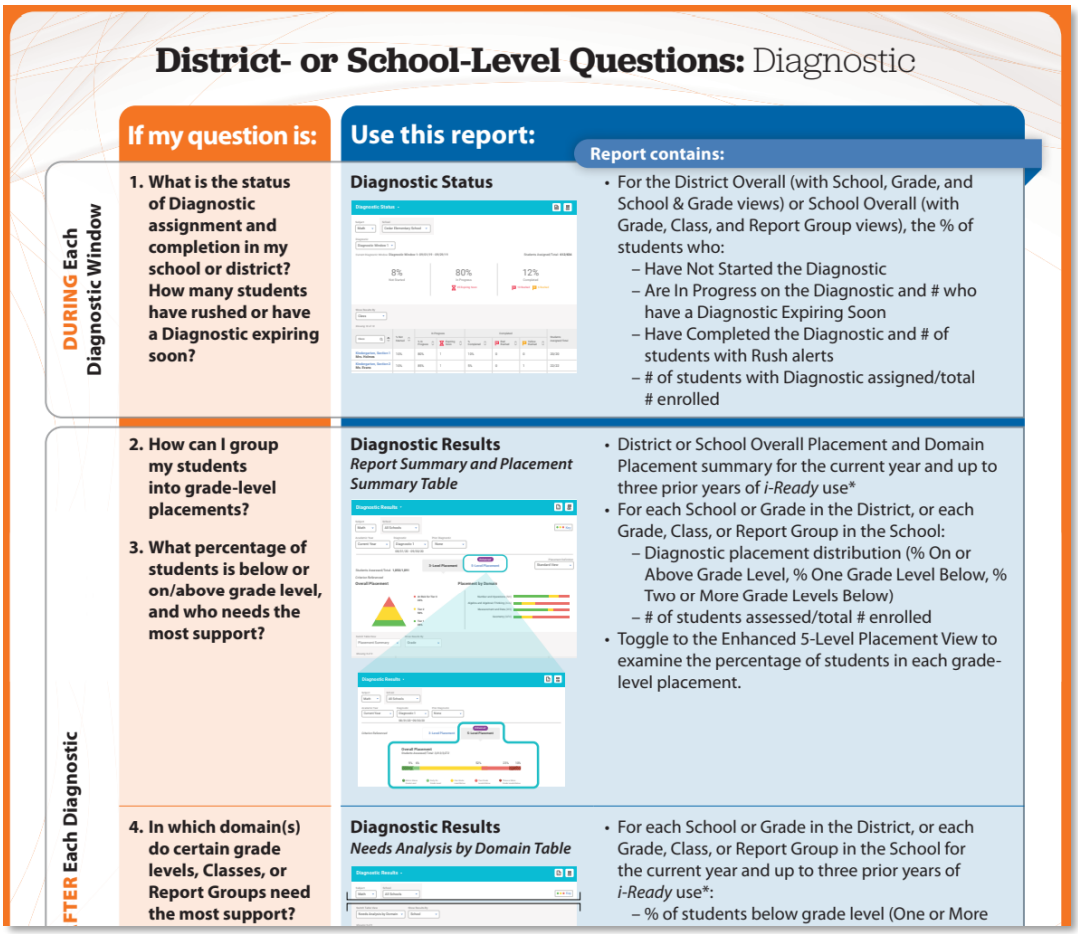


Figure 37. The i Ready Report Selector helps educators of all experience levels efficiently select the reports to fit their needs.

Diagnostic Results Report: Class and District/School Levels

Upon completion of the *Diagnostic*, the in-depth *Diagnostic* Results report presents *Diagnostic* scores and generates an overall development analysis. Educators can choose to group students into either three levels (on- or above-grade level; one grade level below; and two or more grade levels below) or five levels (mid- or above-grade level; early on-grade level; one grade level below; two grade levels below; or three or more grade levels below).

Figure 38 presents an excerpt from a *Diagnostic* Results class report; Figure 39 presents an excerpt from a *Diagnostic* Results district/school report.

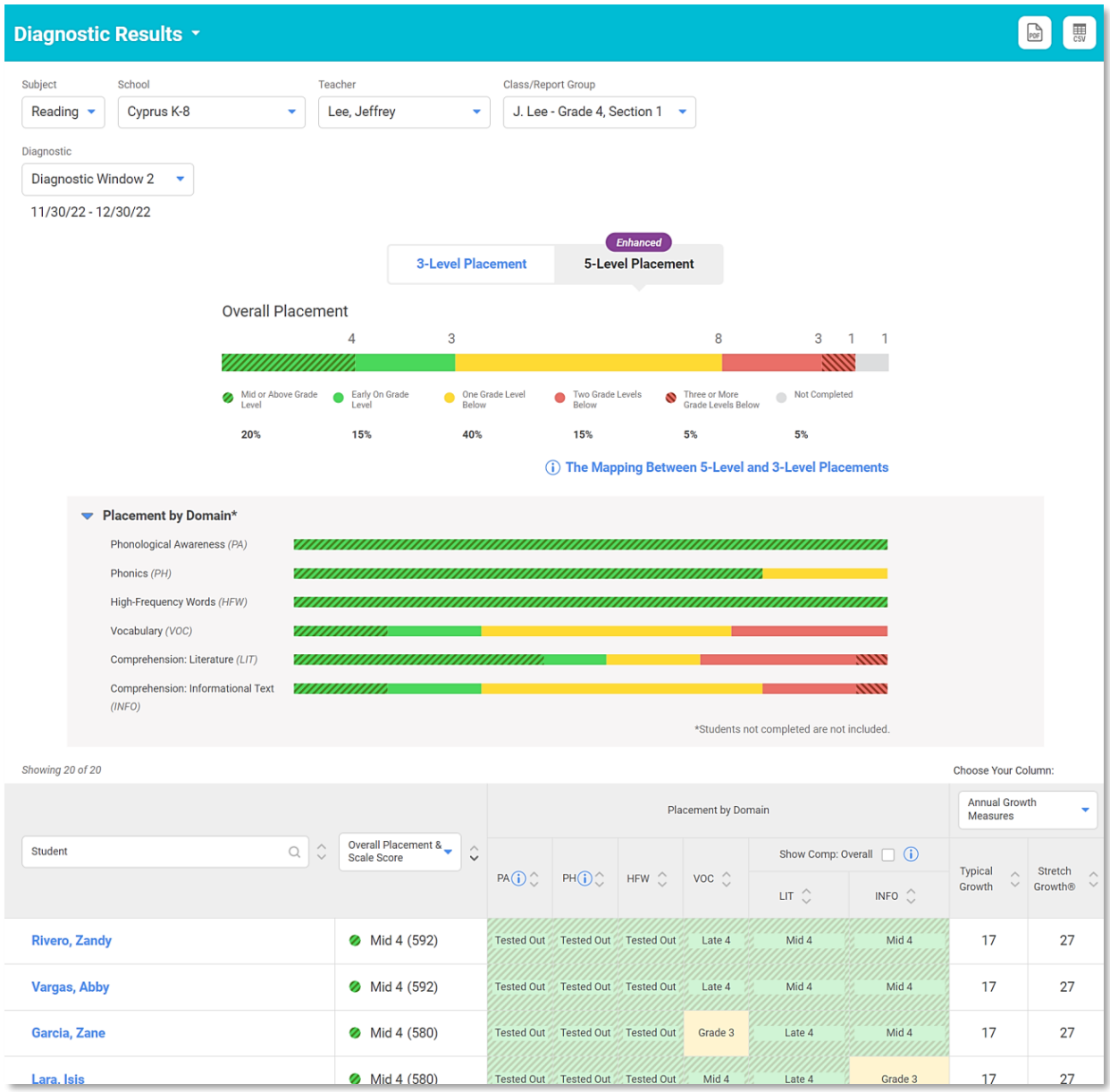


Figure 38. The *Diagnostic* Results (Class) report provides overall and domain *Diagnostic* placements for each student, as well as a class distribution summary. In this example, 5-level Placement is shown; educators can also opt to view 3-level Placement.

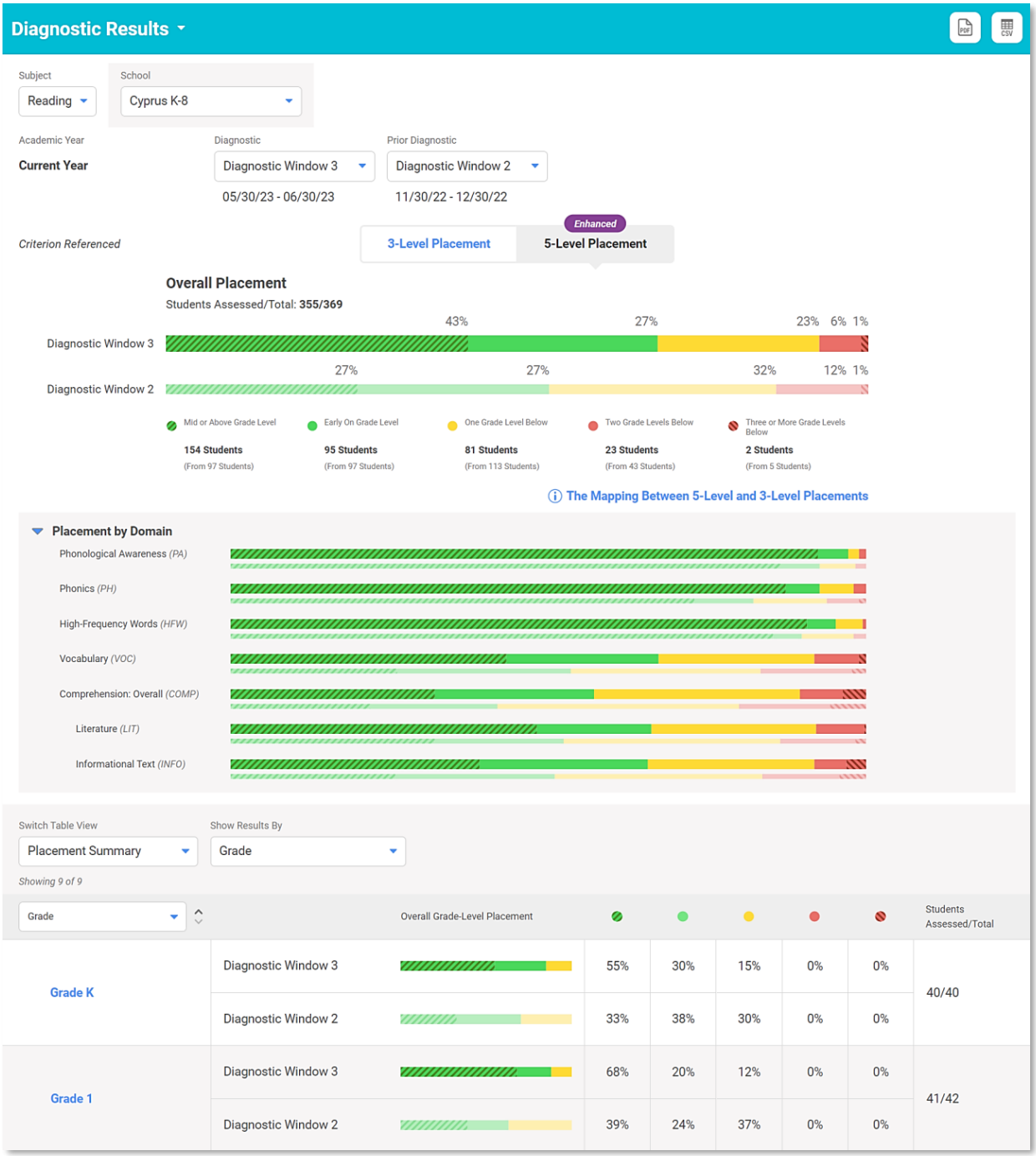


Figure 39. The *Diagnostic* Results (District/School) report provides a comprehensive picture of student performance at the school, grade, and class levels, enabling administrators to set intervention strategies and inform resource allocation decisions after each *Diagnostic*. Administrators can view data for one school (shown here) or for all schools. In this example, the results of two *Diagnostics* are compared across five levels.

"All of us—no matter where we are in our education, our professional learning —can always benefit and learn more and I really like how *i-Ready* does that for teachers on the reports. It says, 'this is the problem, here's a solution'."

a. Provide analysis of test results at the individual, class, school, and district level.

Using *i-Ready Assessment*, decision-making at the student, group, class, school, and district levels is explicitly driven by comprehensive, actionable reports—helping educators assess less and know more. Please see the **List of Standard Reports** included in our response to Section II A beginning on page 95 for a list of the full complement of reports which are available at the student, group, class and school level in *i-Ready.*

b. Easy to generate a wide variety of reports, which include various test results and student demographic data.

With *i-Ready,* a wide variety reports are easily available. Please see our Table 3 of Standard reports for Virginia K–8, beginning on page 95. School and district administrators can use demographic data filters (Figure 40) on the *Diagnostic* Results, *Diagnostic* Growth, and *Personalized Instruction* Summary reports. This feature allows administrators to view results for specific demographic groups, compare student performance across demographic groups, and align their data analysis to the reporting requirements of Every Student Succeeds Act (ESSA) and the Elementary and Secondary School Emergency Relief (ESSER) Fund. To view demographic groups, the setting for Demographic Filters must be enabled.

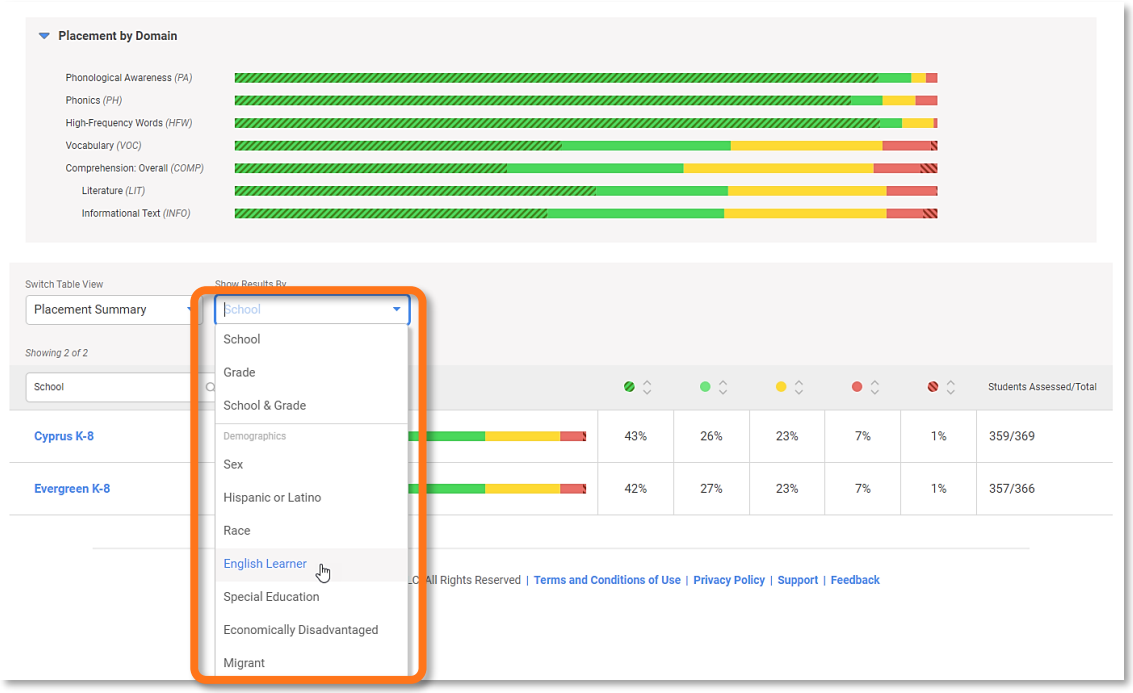


Figure 40. School and district administrators can use Demographic Filters to select and see results by subgroup, as illustrated in this excerpt from a district-level *Diagnostic* Results report.

The following demographic groups are included in *i-Ready*: Hispanic or Latino, Race, Migrant, English Learner, Special Education, Economically Disadvantaged, and Sex. Students are associated with one or more demographic groups based on data provided by the District during the account onboarding process. *i-Ready* does not collect any demographic information directly from students.

c. Results should be easy to disaggregate based upon various demographic or proficiency levels and should be easy to interpret.

i-Ready supports disaggregation of data in multiple ways, including the following:

- The *Diagnostic* Results report for a school or district disaggregates students into tiers based on their most recent performance on the assessment, with recommendations for further instruction based on student placements in each domain.
- The *Diagnostic* Growth report for a school or district allows for disaggregation of student data based on student performance on the initial *Diagnostic*, to help administrators understand progress to growth measures for students who started the year at different placement levels.
- A variety of district/school level exports support disaggregation using Excel or similar software.

School and district administrators can use demographic data filters as described in part b of this section, beginning on page 104.

d. System provides *Diagnostic* information for all students, whether they are performing at, above, or below grade level.

Curriculum Associates proposes HCPS use *i-Ready Diagnostic* to determine whether students are performing below, at, or above their current grade level.

i-Ready Diagnostic is a computer-adaptive test, and the difficulty of each test question presented is matched to the student's performance on the previous items. The *Diagnostic's* adaptive algorithm automatically selects from thousands of items to get to the core of each student's strengths and challenges. With *i-Ready Diagnostic*:

- No two students take the same test. Just as every student performs at a different level, every student has a different test experience.
- Students receive a challenging test to help identify their precise performance and ability level on a range of skills. Students may, therefore, see above-grade level material and below-grade level material depending on their responses to prior items.

We incorporated grade-level caps into our item selection algorithm to provide a more accurate measure of students performing substantially below the defined on- level performance level for their grade level. All items were written to address particular skills or standards for a certain grade level for each subject; each item is tagged against a grade level. The grade-level cap is an additional item selection rule that restricts the eligible item pool at any point in time to items at and below the grade-level cap. Students taking the *Diagnostic* can see items written one or more grades below their chronological grade and as much as one grade level above their chronological grade.

i-Ready placement levels help educators understand which skills a student has mastered and in which skills students need additional instruction, support, and practice. *i-Ready Diagnostic* reports placement levels (cut points) for students' overall performance and for each domain on the *Diagnostic* Results for a student report (Figure 41) and on the Instructional Groupings report.

Placement levels indicate where students should be receiving instruction. *i-Ready's* grade-level placements are designed to help educators target instruction for each student. Grade-level placements also inform classroom instruction and provide domain-specific insights, allowing for targeted differentiation and remediation. *i-Ready's* placement, or performance, levels reflect the knowledge and skill levels of students who are "early on grade level" and "mid on grade level" in each grade.

i-Ready's criterion-referenced and normative scores help teachers differentiate instruction and set challenging, yet attainable, goals.

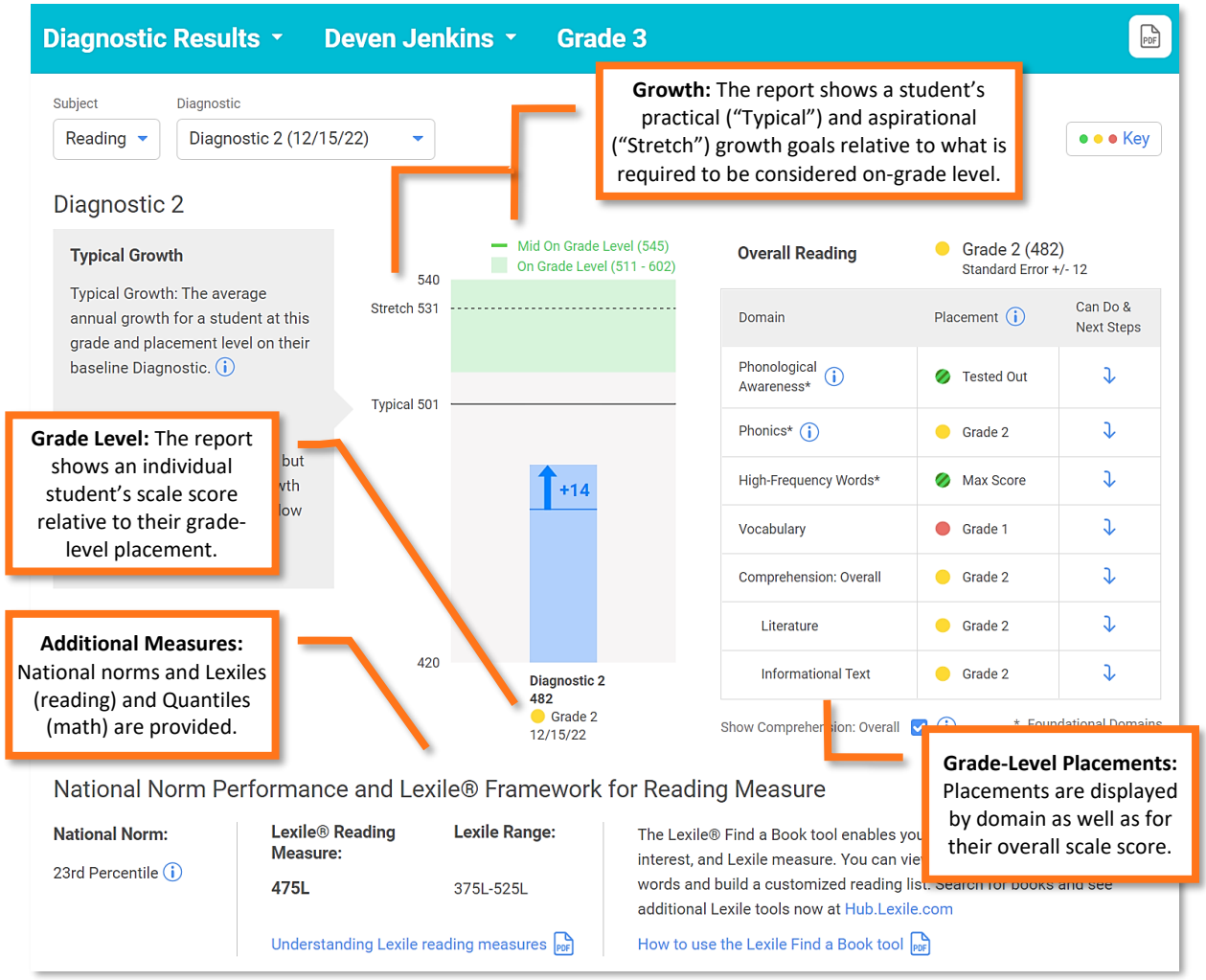


Figure 41. *i-Ready*'s criterion-referenced and normative scores help teachers differentiate instruction and set challenging, yet attainable, goals.

5-Level Placement provides a detailed breakdown of performance for a district, school, grade, or class to better target student needs. With these enhanced placements, educators can maintain a consistent perspective on placement throughout the school year and better see movement between placements. Teachers will have deeper insights into how groups of students are progressing towards proficiency and the level of scaffolding individual students need to be successful.

Teachers can see results in terms of these five levels, as listed below and shown in **Figure 11**:

- Level 1: Mid on-grade level or above
- Level 2: Early on-grade level
- Level 3: One grade level below
- Level 4: Two grade levels below
- Level 5: Three or more grade levels below

e. Nationally normed.

i-Ready presents norm scores, which identify how students are performing relative to their peers nationwide. These scores specify a student's ranking compared to students in the same grade. For example, if a student's percentile rank is 90 percent, this means the student scored better than or equal to 90 percent of their national peers from the same grade level. The norm scores are based on a specific population of students who took *i-Ready Diagnostic*. This specific population was a nationally representative sample according to the latest available data from the National Center for Educational Statistics. Fall, winter, and spring norms are available for *Diagnostic* assessments for grades K–8.

f. Grade level equivalent and percentile rank scores reported.

Multiple Types of Scores

Upon completion of the adaptive *Diagnostic*, *i-Ready* reports multiple types of scores to present a well-rounded view of each student's proficiency levels.

- **Scale Scores (K–12)**—*i-Ready Diagnostic's* vertical scale scores provide a measure of student learning on a single continuum so that educators can compare both within and across grade levels K–12 (Figure 42). The *i-Ready* scale indicates what skills a student has mastered at each administration of the assessment and what skills the student still needs to develop. As *i-Ready* was based on the college- and career-ready standards, this consists of the skills expected of students at each grade level. Educators can use *i-Ready Diagnostic* across the District to track yearly student progress and optimize administration decision-making for long-term performance improvements.

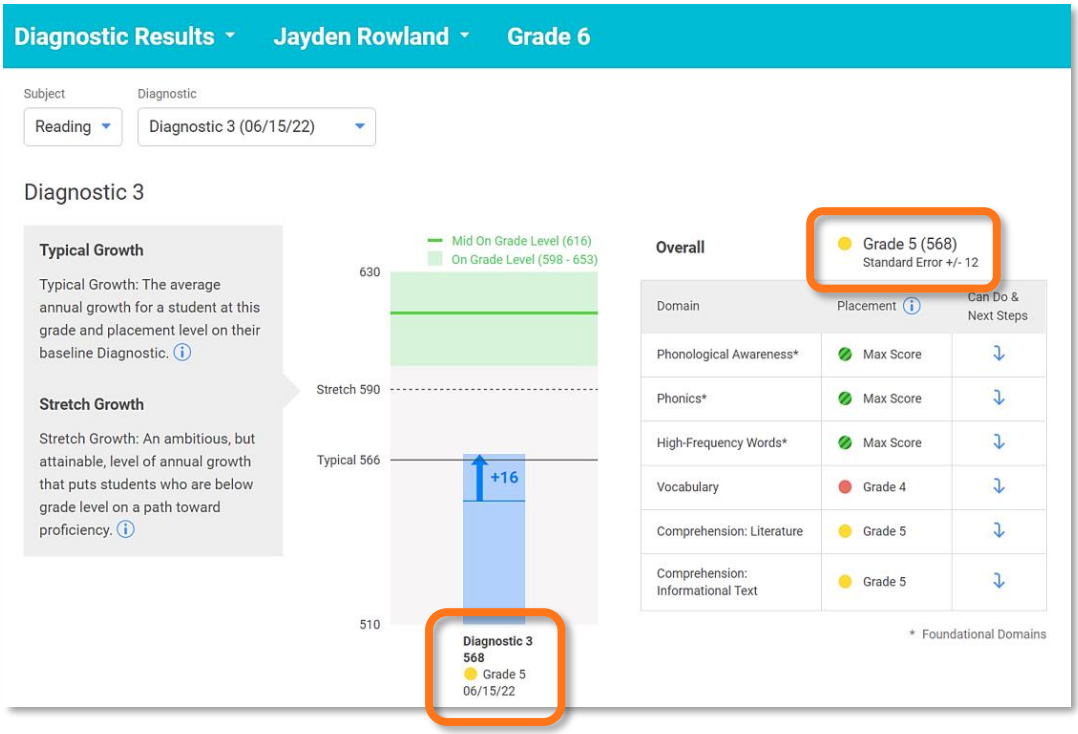


Figure 42 The student's scale score and the Standard Error are reported on the *Diagnostic* Results report.

Placement Levels (K–12)—The practical day-to-day language that helps teachers determine what grade level of skills to focus on with a student, placement levels indicate where students should be receiving instruction. *i-Ready's* grade-level placements are designed to help educators target instruction for each student. Grade-level placements also inform classroom instruction and provide domain-specific insights, allowing for targeted differentiation. The *Diagnostic* reports placement levels for students' overall performance (as shown in) and for each domain (as shown in Figure 43).

> **"The most significant thing about *i-Ready* is how it places students accordingly and how it guides teachers in addressing the situation regarding students' knowledge."**
> **—Educator and *i-Ready* user**

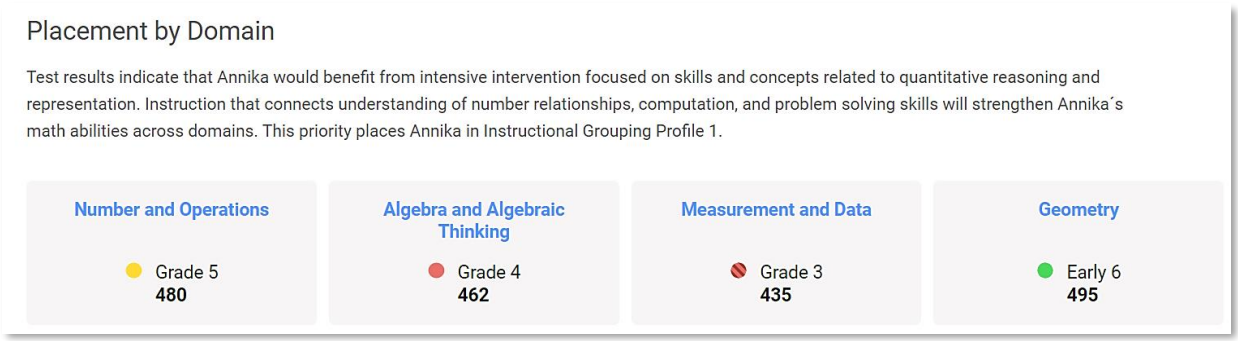


Figure 43. i Ready *Diagnostic* reports placement levels for each domain, as shown in this excerpt from a *Diagnostic* Results (Student) report.

- **Norm Scores (K–10)**—Norm scores identify how students are performing relative to their peers nationwide (Figure 44). These scores specify a student's ranking compared to students in the same grade. For example, if a student's percentile rank is 90 percent, this means the student scored better than or equal to 90 percent of their national peers from the same grade level. The norm scores are based on a specific population of students who took *i-Ready Diagnostic*. This specific population was a nationally representative sample according to the latest available data from the National Center for Educational Statistics. Fall, winter, and spring norms are available for grades K–8. Fall norms are available for grades 9 and 10; we are continuing to evaluate when we can add winter and spring high school norms in the future.
- **Lexile® Measures (K–12)**—Developed by MetaMetrics®, Lexile measures are widely used as measures of text complexity and reading ability, allowing a direct link between the level of reading materials and the student's ability to read those materials (). The *Diagnostic* reading assessment has been statistically linked with the Lexile Framework, making it possible to provide an equivalent Lexile measure for every overall scale score. The report also has a link "Understanding Lexile measures" to explain the measures and the corresponding *i-Ready Diagnostic* linking studies.
- **Quantile® Measures (K–12)**—Developed by MetaMetrics, the Quantile Framework for Mathematics is a unique resource for accurately estimating a student's ability to think mathematically and matching them with appropriate mathematical content (). The *Diagnostic* math assessment has been linked with the Quantile Framework, making it possible to provide a Quantile measure for each student that corresponds to each overall scale score. The report also has a link "Understanding Quantile measures" to explain the measures and the corresponding *i-Ready Diagnostic* linking studies.

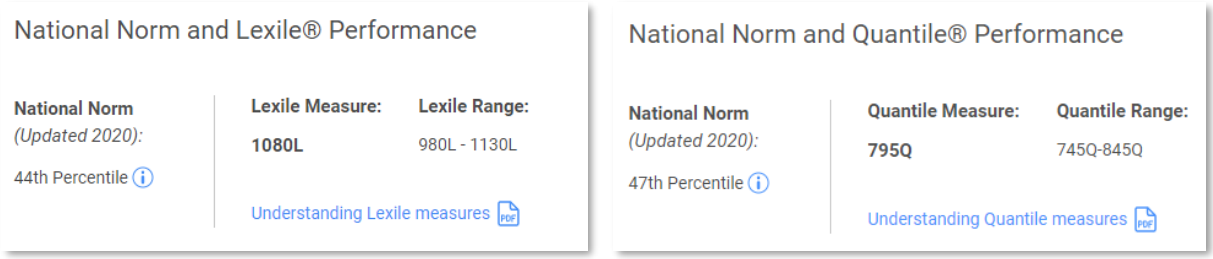


Figure 44. Norm scores and Lexile Measures (for reading) or Quantile Measures (for mathematics) are included on the student *Diagnostic* Results reports, as shown in these excerpts.

g. Reports show trend lines and growth trajectories.

i-Ready's reporting shows trends and growth. Here are two examples of note.

School and district administrators can get real-time data that shows growth and performance in a single view, and see at-a-glance if there are schools or grade levels that may need more support. The quadrant chart on the *Diagnostic* Growth tab (Figure 45) represents, by subject, how each school or grade across a district has grown since the fall *Diagnostic* and how performance compares to *i-Ready* performance nationally. The chart is a quick, visual representation of data; administrators would then use *i-Ready* reports to dig deeper. The chart will display data starting in the winter norming window (November 16 – March 1).

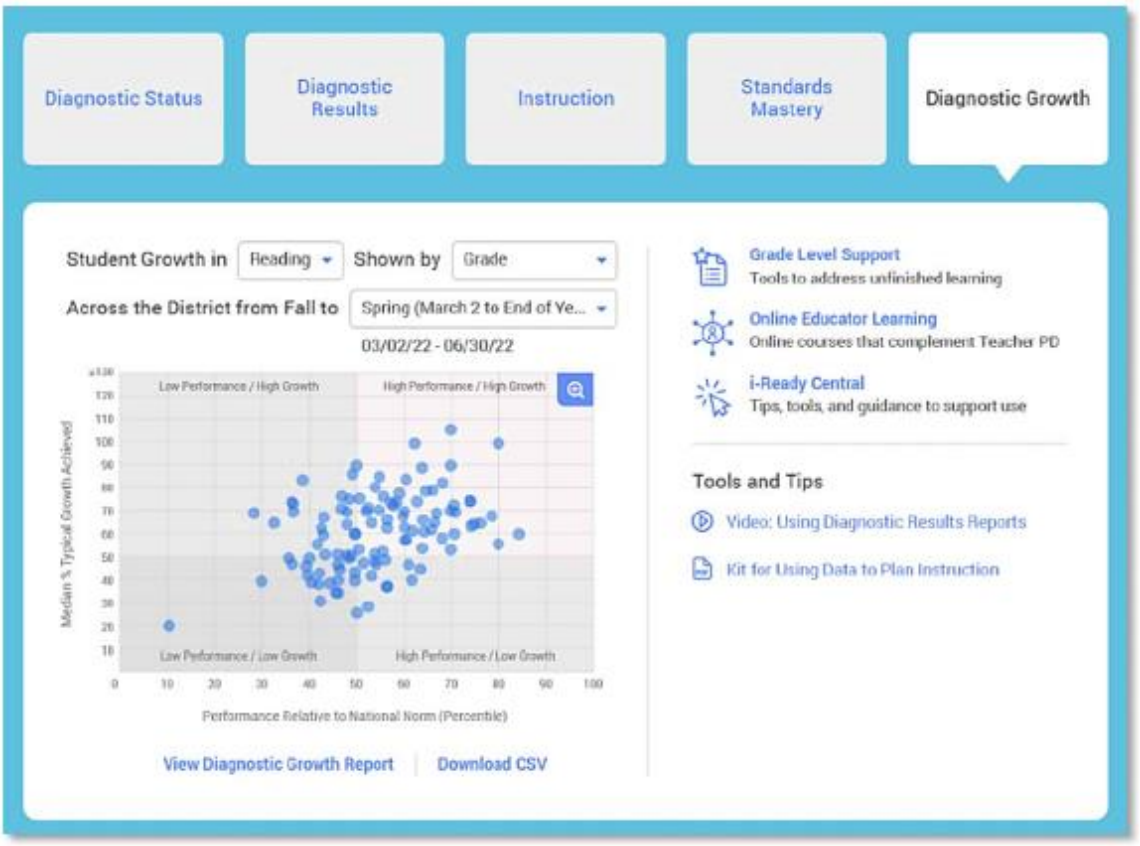


Figure 45. The growth and performance quadrant chart available in the administrator dashboard provides a snapshot of growth and performance across K–8 schools and grades.

Schools or grades are plotted across four quadrants based on the Median Percent Typical Growth Achieved and the Performance Relative to National Norms. The quadrants are as follows:

- **Low Performance/High Growth:** Median progress to Typical Growth is 50 percent+ in winter or 100 percent+ in spring, with performance below the national median.
- **High Performance/High Growth:** Median progress to Typical Growth is 50 percent+ in winter or 100 percent+ in spring, with performance above the national median.
- **Low Performance/Low Growth:** Median progress to Typical Growth is <50 percent in winter or <100 percent in spring, with performance below the national median.
- **High Performance/Low Growth:** Median progress to Typical Growth is <50 percent in winter or <100 percent in spring, with performance above the national median.

After administering *i-Ready Literacy Tasks* to the student, the educator inputs data into *i-Ready*. Calculations and cut score determination are done automatically by *i-Ready*. The results are then available in the student *Literacy Tasks* report (Figure 46 and Figure 47), which details a student's performance on each administered task type. Data in the report includes when the task was administered, which specific task was administered, the grade level associated with the form, and the student's score on the form. Performance is reported using placements such as "Below Level", "On Level", and "Above Level." For Progress Monitoring Tasks, charts include a target region that represents grade-level proficiency.

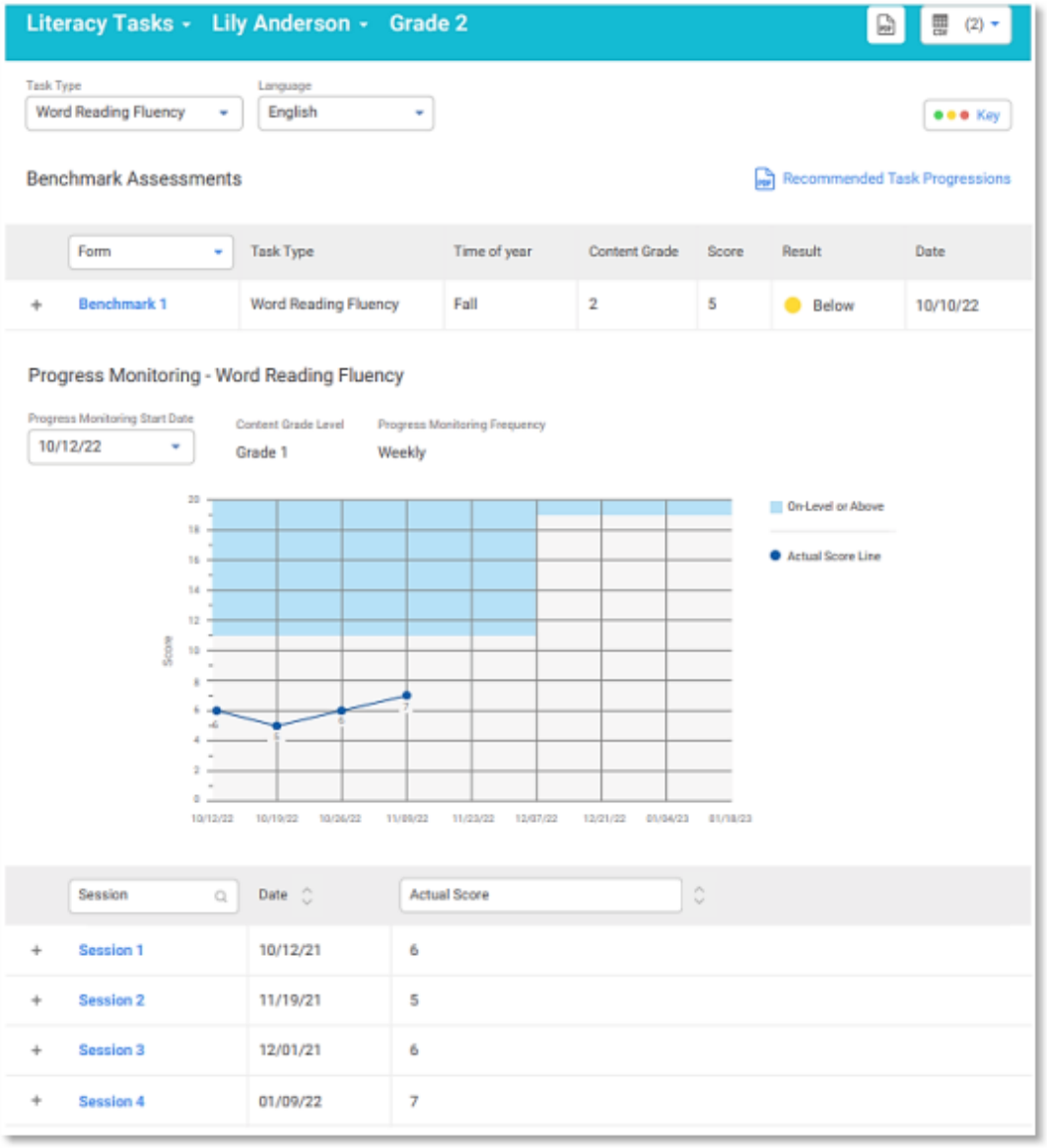


Figure 46. The *Literacy Tasks* student report allows for educators to view the calculated results for both Benchmark Tasks and Progress Monitoring Tasks. The report shown here is for Word Reading Fluency.

Additionally, the progress monitoring charts for Passage Reading Fluency (Figure 47) include two aim lines—one that represents the rate of improvement needed to meet grade-level expectations, and one that represents typical growth. (The Performance and Typical Rate of Improvement aim lines are only available for Passage Reading Fluency progress monitoring forms at this time.)

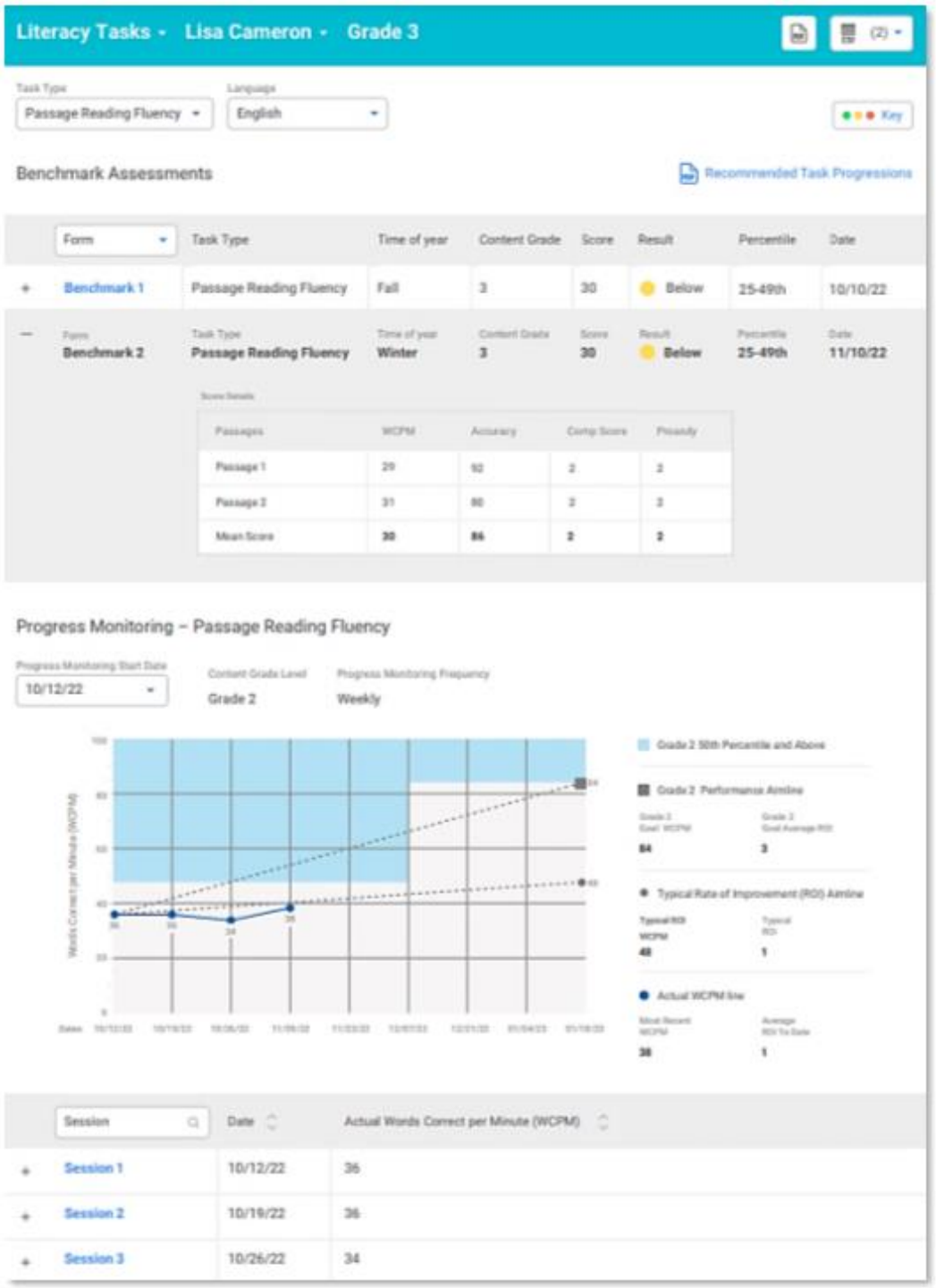


Figure 47. The *Literacy Tasks* student report shown here is for Passage Reading Fluency. The progress monitoring charts include two aim lines that help educators determine what goal to set for the student for the progress monitoring period.

h. Allows users to aggregate and disaggregate data so that they can see performance at the student, group class, grade, school, and district levels.

i-Ready allows users to aggregate and disaggregate data so that they can see performance at the student, group class, grade, school and district levels. See response to Section IIB question 1, part c beginning on page 105 for a discussion of the ways in which *i-Ready* data may be disaggregated to analyze student performance.

i. Allows users to view performance data for student subgroups.

Report Groups

With Report Groups, HCPS staff can create informal sets of students for the convenience of assignment and student and class reporting. Students must be in a class before they can be in a group. Administrator and school leaders can view reports for customized groups of students, such as intervention programs, Special education, historically underachieving, socio-economic status, etc.

To create groups, administrators choose a group name and add as many students as needed (Figure 48). Once complete, *i-Ready* will save the grouping and allow administrators to pull information specific to the students included in the grouping.

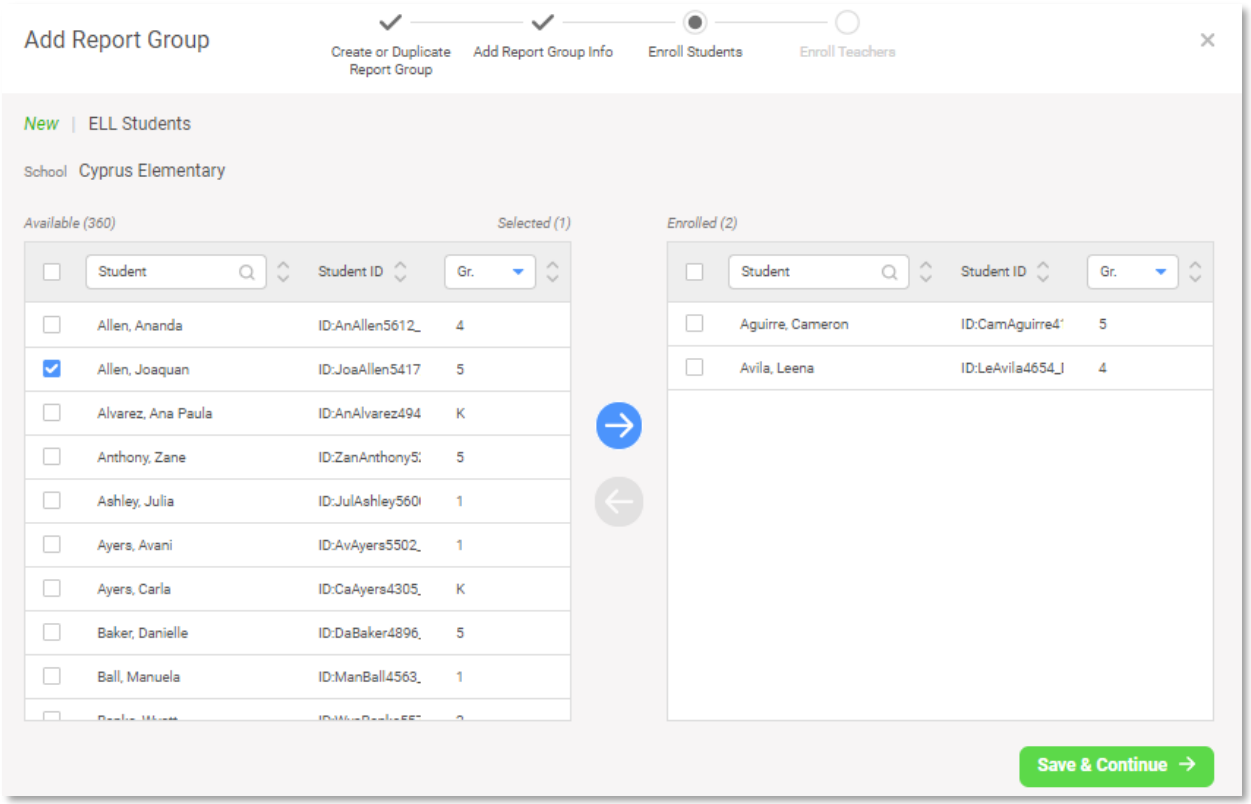


Figure 48. The management tab in the user interface allows administrators and teachers to create custom groups in i Ready.

Data Export

Authorized HCPS users can run a data export that includes available demographic information. If HCPS provides student demographic information when setting up the *i-Ready* account (or if authorized HCPS users later add this information manually through *i-Ready's* Management navigation), then demographics can be included as part of the data export.

Including this data in the export makes it easy for administrators to create Excel tables showing *i-Ready* performance statistics by different student populations in the HCPS. For example, educators can compare how their EL population is performing in reading or mathematics versus their general education population, or review whether students are making adequate gains by sex and socioeconomic status.

j. Includes customizable reporting dashboards that provide a comprehensive view of skills, mastery, and growth.

The user-friendly educator dashboard shows at-a-glance relevant information about students' *i-Ready* performance (Figure 49). Built with input from educators, the dashboard makes readily available the key data and actionable information that teachers and administrators need to help students succeed. Among many activities, educators can easily access reports and other data and resources to differentiate instruction, actively monitor their students' progress in *i-Ready*, and quickly get to support resources. Multiple click-paths save educators time and effort.

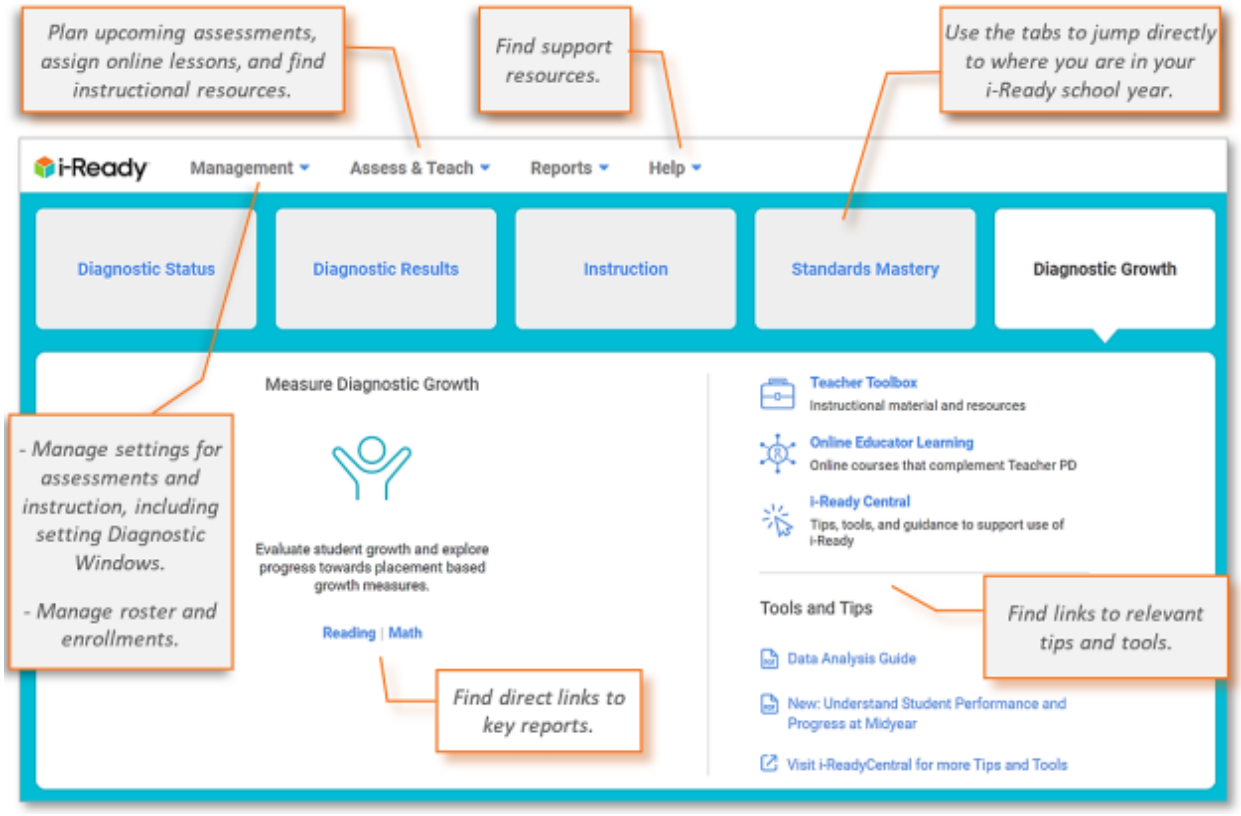


Figure 49. i Ready's easy-to-use dashboard, shown here for an administrator, provides intuitive data and actionable information in a streamlined format.

In addition to the user-friendly dashboard, reports are easy to access through the Reports tab (Figure 50). We set up the tab so that it organizes reports in the way educators need and want. Reports are always up-to-date, and users can drill-down/filter into the data through the robust and interactive interface and easily change the view of the data.

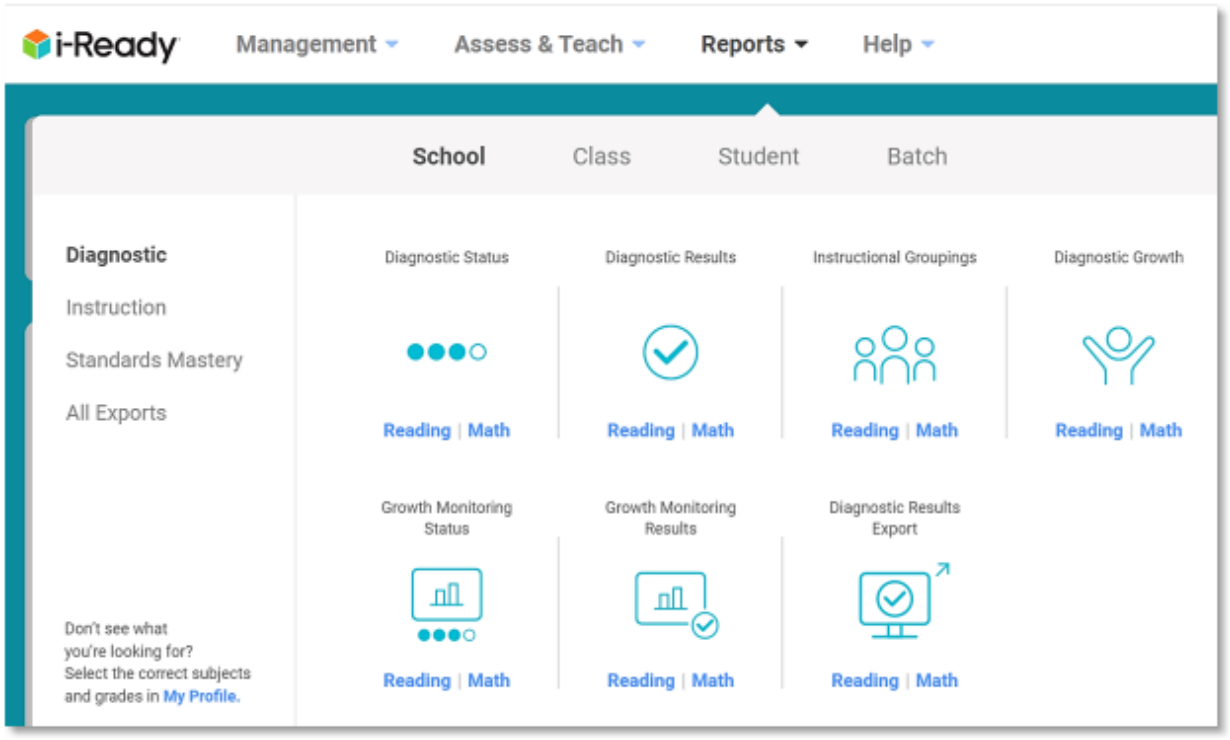


Figure 50. *i-Ready*'s user-friendly reports provide intuitive data at the educator's fingertips. Shown here are the *Diagnostic* school reports available to school administrators.

To learn more on navigating *i-Ready*, see these videos:

- How to: Navigating *i-Ready* as a Teacher (Running time: 4:00): https://iReadycentral.com/videos/navigating-the-even-better-i Ready-as-a-teacher.
- How to: Navigating *i-Ready* as an Administrator (Running time: 4:00): https://iReadycentral.com/videos/navigating-the-even-better-i Ready-as-a-leader.

k. System provides longitudinal data in dashboard views to allow for year-over-year comparisons.

Once a school has used *i-Ready* for more than one year, data from previous years is available. *i-Ready* includes a Historical Results report by student and by class. Available for K–12, the Historical Results report a comprehensive view of performance in *i-Ready* for up to three of the most recent academic years. Data includes *Diagnostic* results for the first and last test taken, placement levels, and final scale score. The class-level report shows how students in a class progressed through their *Diagnostic* in the previous academic year to help an educator conduct historical performance analysis, instructional planning, and intervention planning. This report is only available for schools that used *i-Ready* in the previous school year (Figure 51).

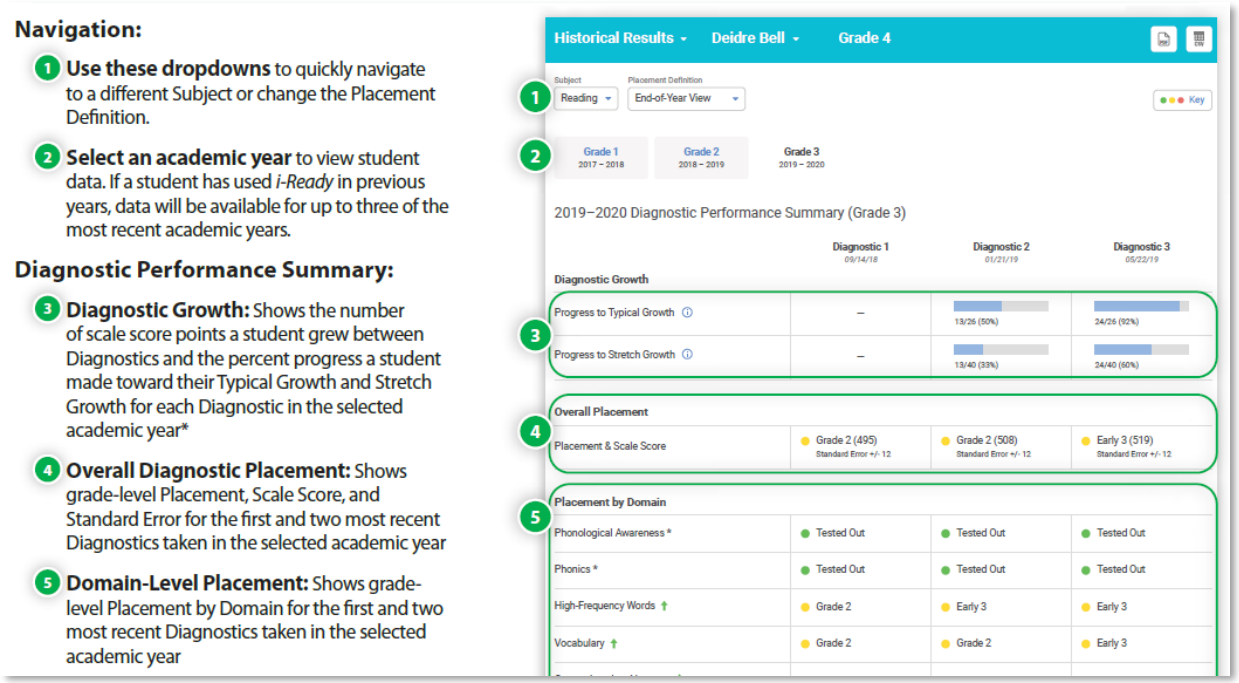


Figure 51. The Historical Results report displays a student's progress in i Ready across years.

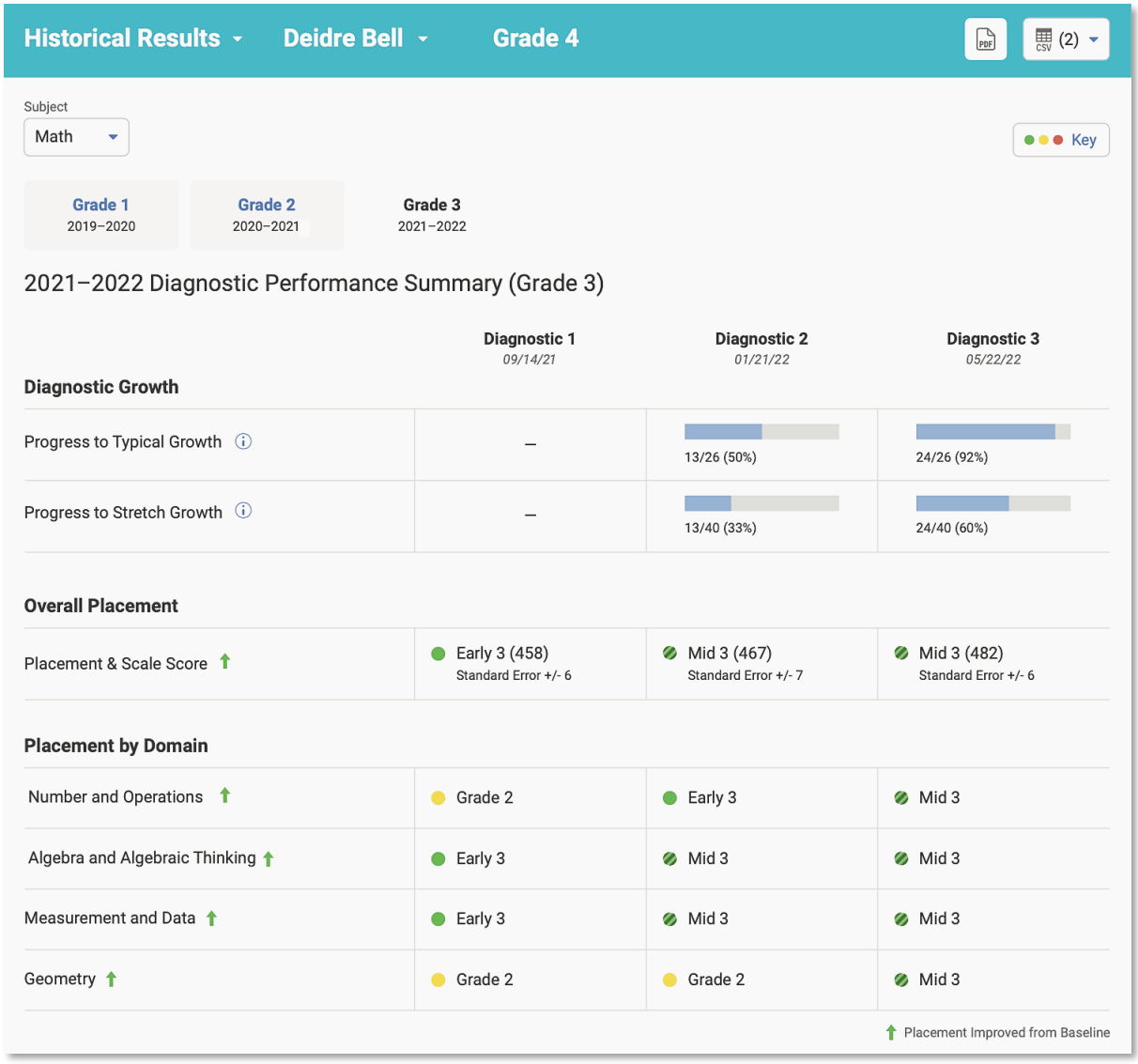


Figure 52. The Historical Results report displays a student's progress in i Ready across years.

For within the same academic year, administrators can use the *Diagnostic* Results comparison view at both the school and the district level, allowing for a parallel visual analysis across overall tier distribution, domain placement, and domain-level details (Figure 53). This feature eases the ability to compare student gains between *Diagnostic* assessments.

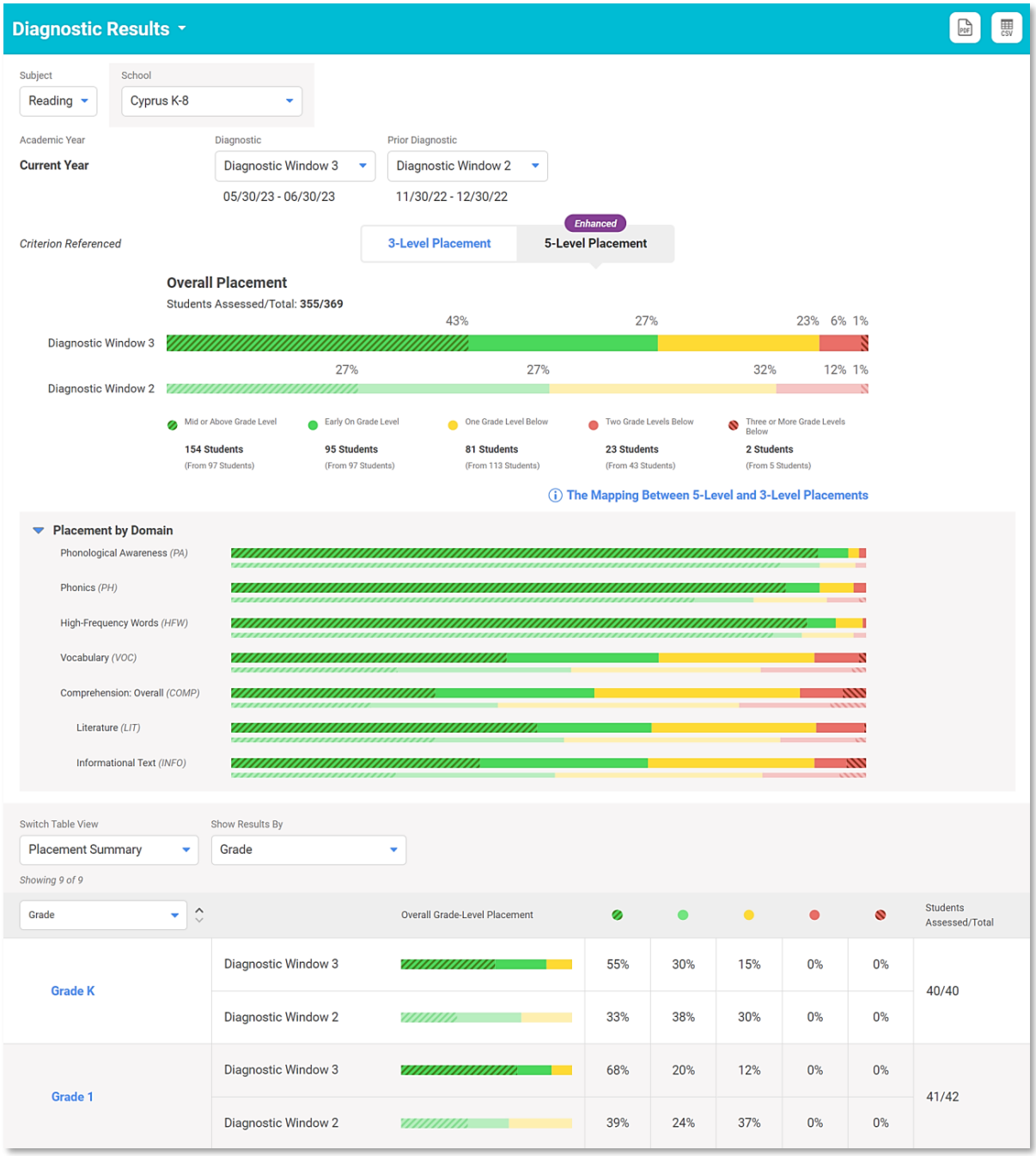


Figure 53. This is an excerpt of a school-level *Diagnostic* Results report, in which administrators can use the comparison view to compare *Diagnostic* results across time.

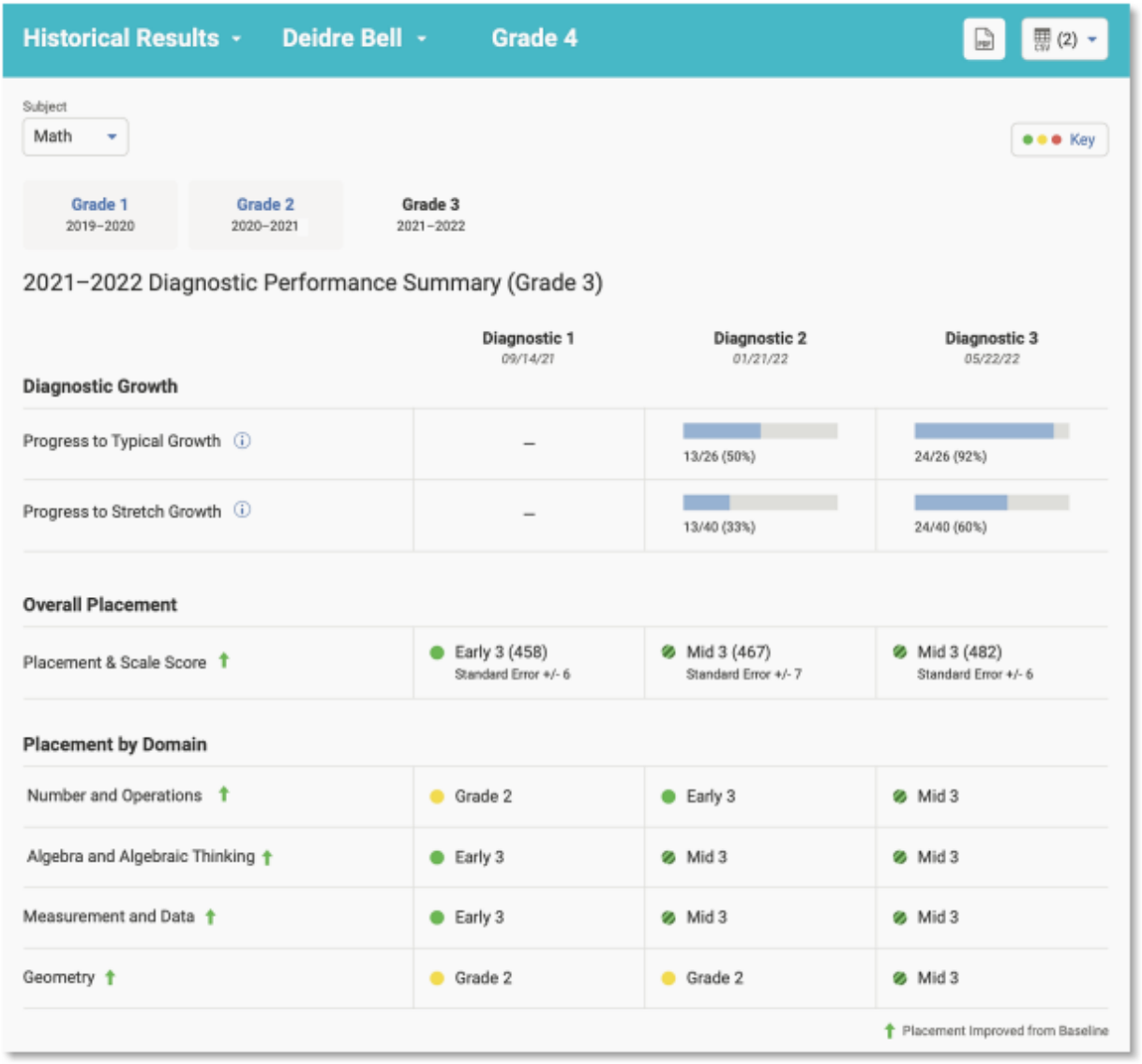


Figure 54. The Historical Results report displays a student's progress in i Ready across years.

i-Ready also offers authorized users district-level reports that show performance for all schools in HCPS implementing the program. District level reports include, among others, *Diagnostic* Status, *Diagnostic* Results (plus a *Diagnostic* Results Comparison View to see the results of two *Diagnostic* assessments; example is shown in (Figure 55), *Diagnostic* Growth, and Standards Mastery Results, both by test and year to date. *i-Ready* data also can be exported for external analyses.

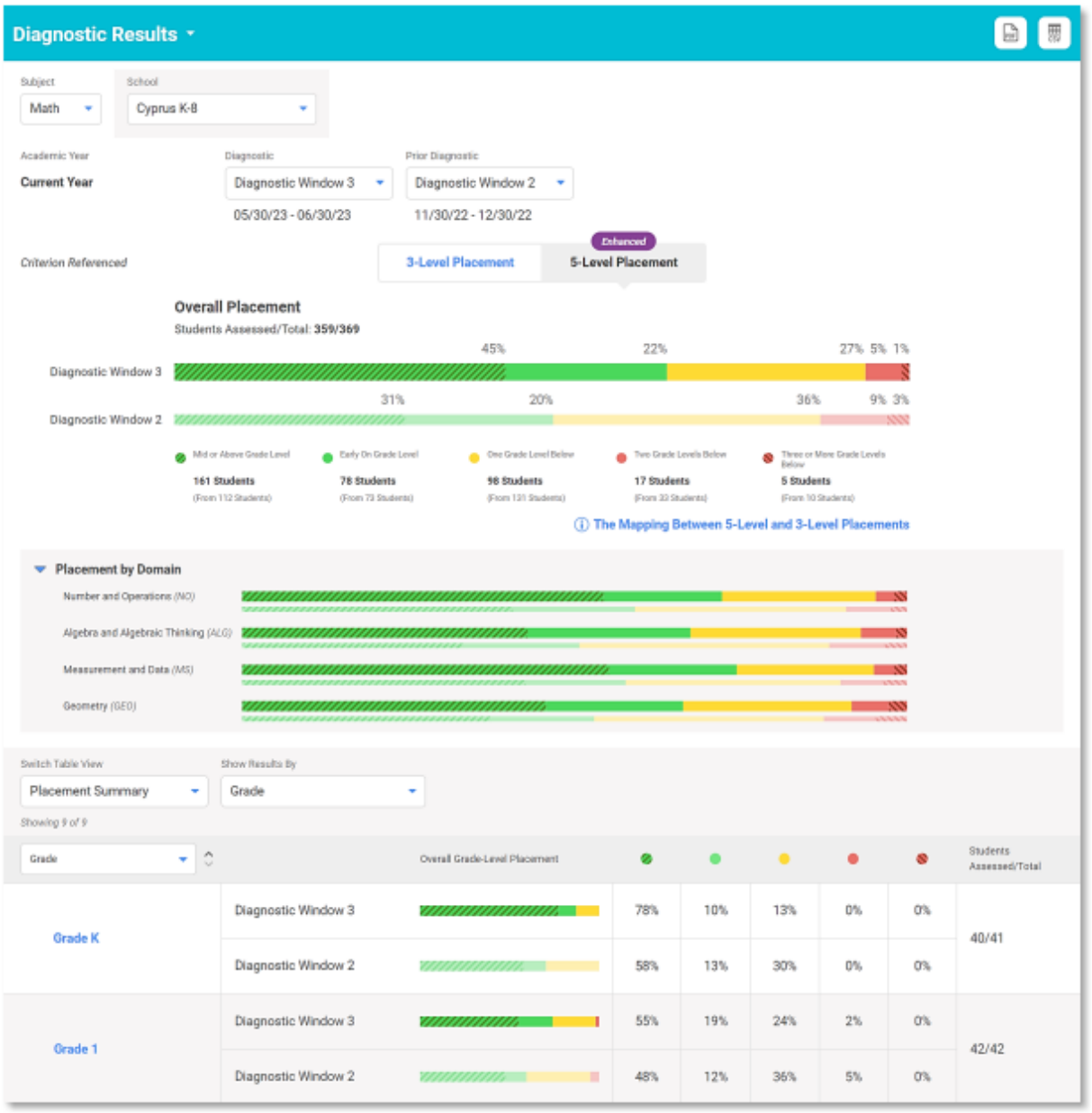


Figure 55. In this example of the *Diagnostic* Results (School) report, the results of two *Diagnostics* are compared. This comparison makes it easier to understand student gains between *Diagnostics*.

l. Parent reports in English and Spanish, additional languages preferred.

The For Families report in *i-Ready* provides families with their student's overall performance, scale scores, placement levels, Stretch and Typical Growth goals, and definitions of terms. Available in English and Spanish, the For Families report helps teachers communicate student performance in positive, layperson terms to families (Figure 56).

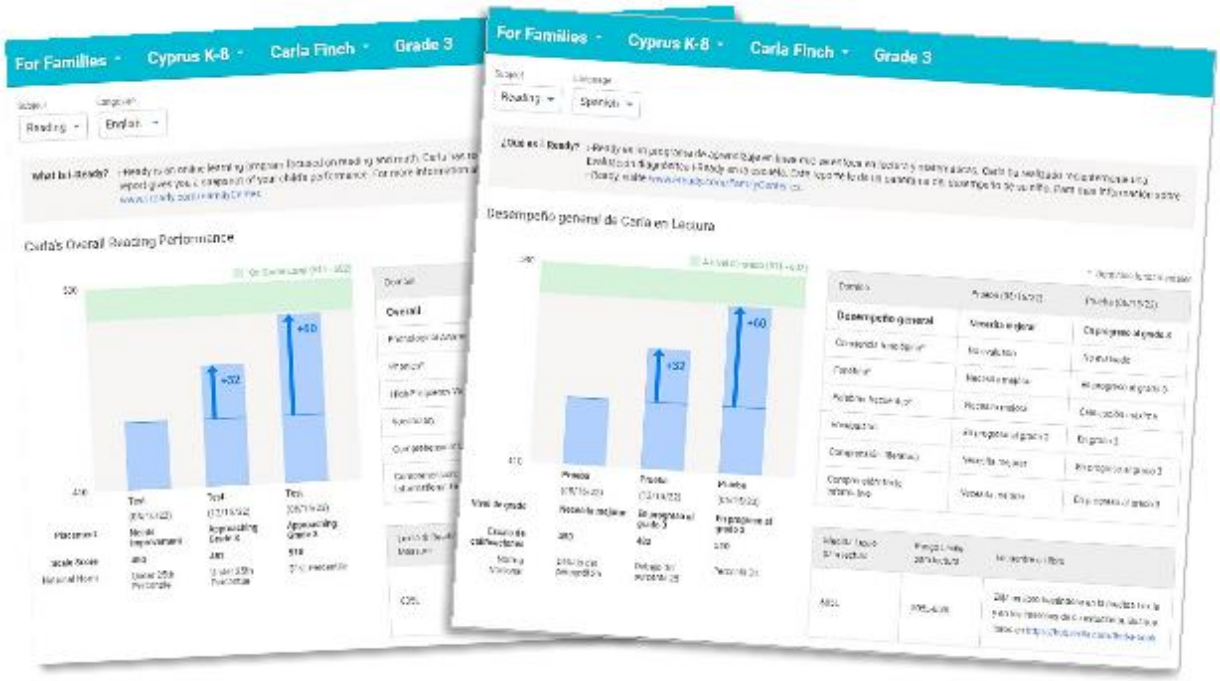


Figure 56. With the For Families report, teachers can share important *Diagnostic* data with parents and caregivers, giving them a clear understanding of their child's performance. The report is available in English and Spanish.

Following are some of the *i-Ready* resources that support parents and are available in multiple languages.

The ***i-Ready* Family Center** website (http://*i-Ready*central.com/familycenter)—designed for parents and caregivers—provides the knowledge families need to help their child understand and advance with *i-Ready*. The site includes an overview of *i-Ready* along with FAQs and tips for how to encourage their children's success. The *i-Ready* Family Center is available in 15 languages: English, Spanish, Arabic, Chinese (Simplified), Haitian Creole, Hmong, Korean, Portuguese, Russian, Samoan, Somali, Tagalog, Urdu, Vietnamese, and Yupik (Figure 57).

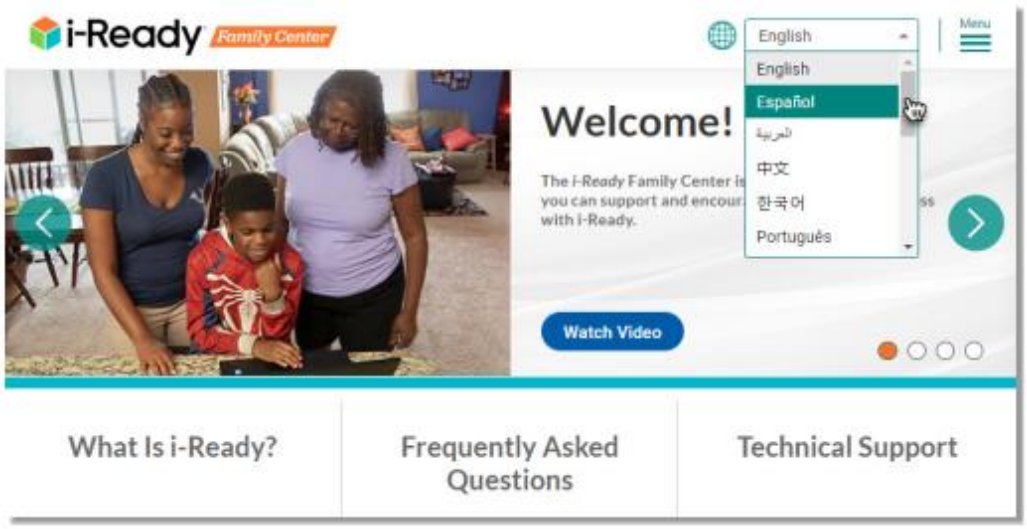


Figure 57. The i Ready Family Center is the place to learn how families can support and encourage their student's success with i Ready.

The ***i-Ready Central*** website provides access to a wealth of *i-Ready* guidance materials that are suitable for both educators and families. In *i-Ready Central*, the "Family Resources in Multiple Languages" page (https://*i-Ready*central.com/articles/family-resources-in-multiple-languages) provides checklists, fridge tips, and videos in English, Spanish, Arabic, Bengali, Chinese (Mandarin), Haitian Creole, Hmong, Korean, Portuguese, Russian, Samoan, Somali, Tagalog, Urdu, Vietnamese, and Yupik.

m. Progress monitoring ability to set and track goals.

i-Ready offers multiple forms of ongoing progress monitoring. In addition to the ability to administer the full adaptive *Diagnostic* three times per school year (K–12), the following progress monitoring tools are included with the license fee:

- The adaptive, online *i-Ready Growth Monitoring* assessments (K–8) are a general outcome measure form of progress monitoring. These assessments are intended to be used to project whether students are on track for appropriate growth. See below for more information.
- The fixed-form, online *i-Ready Standards Mastery* assessments (2–8) are a mastery measurement form of progress monitoring. These assessments focus on measuring how well students have mastered the material and identifying potential misconceptions that require targeted instruction. See page 128 for more information.
- The fixed-form, offline *i-Ready Literacy Tasks* (K–6) are one-on-one administered measures of fluency, automaticity, phonological awareness, and encoding. *Literacy Tasks* can be used on a systematic progress monitoring schedule throughout the year. See page 136 for more information.

- Informal progress monitoring is embedded via the quiz at the end of every *i-Ready Personalized Instruction* online lesson (K–8). The short quiz is designed to assess students' understanding of the focus skill of that lesson. See page 136 for more information.

"Our district piloted *i-Ready* as the ongoing assessment piece to drive RTI. Teachers fell in love with the detailed data and the ease with which they could group and target instruction."
—Assistant Superintendent in a District Using *i-Ready*

i-Ready Growth Monitoring

i-Ready's Growth Monitoring assessments are available for students in chronological grades K–8. Using *Growth Monitoring* assessments in *i-Ready*, teachers and administrators can monitor the progress of students to determine if they are on track to meet annual growth targets. By using the data available in *Growth Monitoring* reports at the class and student levels, teachers can adjust their instruction strategies or change the level of intervention to ensure students stay on track to meet their targets.

Growth Monitoring uses all the data from *i-Ready's Growth Monitoring* and *Diagnostic* assessments to provide the best projection of where a student will ultimately place at the end of the year. Educators can use these projections to determine whether students are on track to reach growth goals, or if greater levels of intervention are needed.

i-Ready's Growth Monitoring growth checks have approximately 20 questions and take about 15 minutes per subject. They are adaptive, just like the *Diagnostic*, so they adjust up and down based on the student's responses. The first *Growth Monitoring* assessment starts where the student placed on the *Diagnostic*; subsequent *Growth Monitoring* assessments always start at the last test's levels (whether *Growth Monitoring* or *Diagnostic*). *Growth Monitoring* assessments may be scheduled by administrators for all students or students within specific grades. They may also be assigned manually by teachers for specific students, classes, or reports groups.

If *Growth Monitoring* is implemented, *i-Ready* provides a Growth Monitoring report at the student and class levels (Figure 58). End-of-year-growth projections appear after the student has completed three of any combination of *Diagnostic* and *Growth Monitoring* assessments in three different months (*Diagnostic* assessments completed before the one tagged as the initial *Diagnostic* are disregarded). If there have only been two completed assessments at the time of running the report, the Growth Monitoring Results (Class) report will not show any data, and the Growth Monitoring Results (Student) report will show basic results of the completed assessments, but not any projections. If a student took more than one *Growth Monitoring* assessment in a calendar month, the scores are averaged together, and the average is used as one data point towards a projection calculation.

This report lets teachers check how students are progressing against growth targets and to see whether students are on track to make expected growth by the end of the year in terms of both Typical and Stretch Growth. If a student is off-track and the trend is not improving, the teacher may need to investigate further to find out why and ultimately adjust their approach or level of intervention.

Once the teacher identifies students who are not on track for meeting end of year growth targets, they can take steps to plan instructional adjustment to get students back on track. This can include scheduling adjustments for time spent in teacher-led or online instruction; moving a student to a different instructional group or intervention level; assigning specialists or students to specific intervention programs; and/or allocating specific curriculum tools and resources to schools or classes based on level of student need.

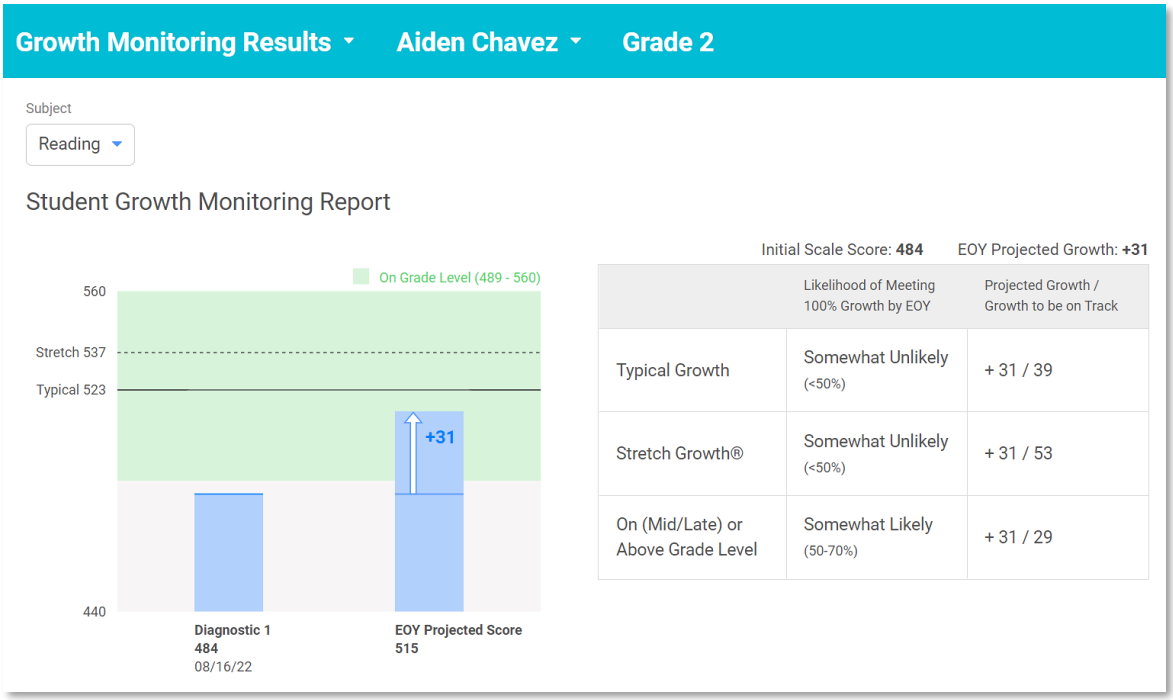


Figure 58. As students complete the *Diagnostic* and Growth Monitoring assessments during the year, i Ready analyzes how the student's growth is trending and projects the progress toward growth measures and level of achievement a student may reach by the end of the year, as shown in this Growth Monitoring Results (Student) report excerpt. The report also helps teacher's prioritize which students may need additional intervention and support.

i-Ready Standards Mastery

i-Ready Standards Mastery assessments for students in grades 2–8, reading and mathematics, allow teachers to regularly monitor student learning in terms of specific Virginia SOL standards. This tool makes it easy to obtain regular formative and benchmark information on standards mastery as students progress in the curriculum throughout the year. The District may choose whether to implement *Standards Mastery* and/or *Growth Monitoring* assessments; both are included with purchase of *i-Ready Assessment*.

Standards Mastery is the perfect complement to *i-Ready Diagnostic*. The combined program provides the best of both worlds—the *Diagnostic* provides a powerful adaptive *Diagnostic*, growth measure, and predictive tool. *Standards Mastery* provides flexible, user-controlled, fixed-form assessments that allow quick and targeted evaluation of specific standards.

The District can choose to assess individual standards or groups of standards. *Standards Mastery* assessments map to schools' unique scope and sequence, allowing the District to assess mastery of the standards just covered in class. Administrators and teachers can quickly identify when re-teaching or additional support is needed.

Standards Mastery offers two fixed-form assessments per standard, with six to ten items per assessment. A wide range of items build comfort and familiarity with the types of items students will see on the state tests (Figure 59 Figure 60).

The reading assessments include multiple choice items, multiple response items, and technology-enhanced items (matching tables, fill-in tables, drag and drop, highlight text, reorder text, and inline choice). Assessment content includes multimedia passages with embedded audio, video, imagery, and animation.

The mathematics assessments include multiple choice items, multiple response items, technology-enhanced items (short answer, inline choice, number line, drag-and-drop, matching, graphing tools, graphing data, shading, and checklist), and virtual tools to help answer questions (unit squares, unit cubes, base-ten blocks, ten-frame counters, protractors, rulers, and calculators).

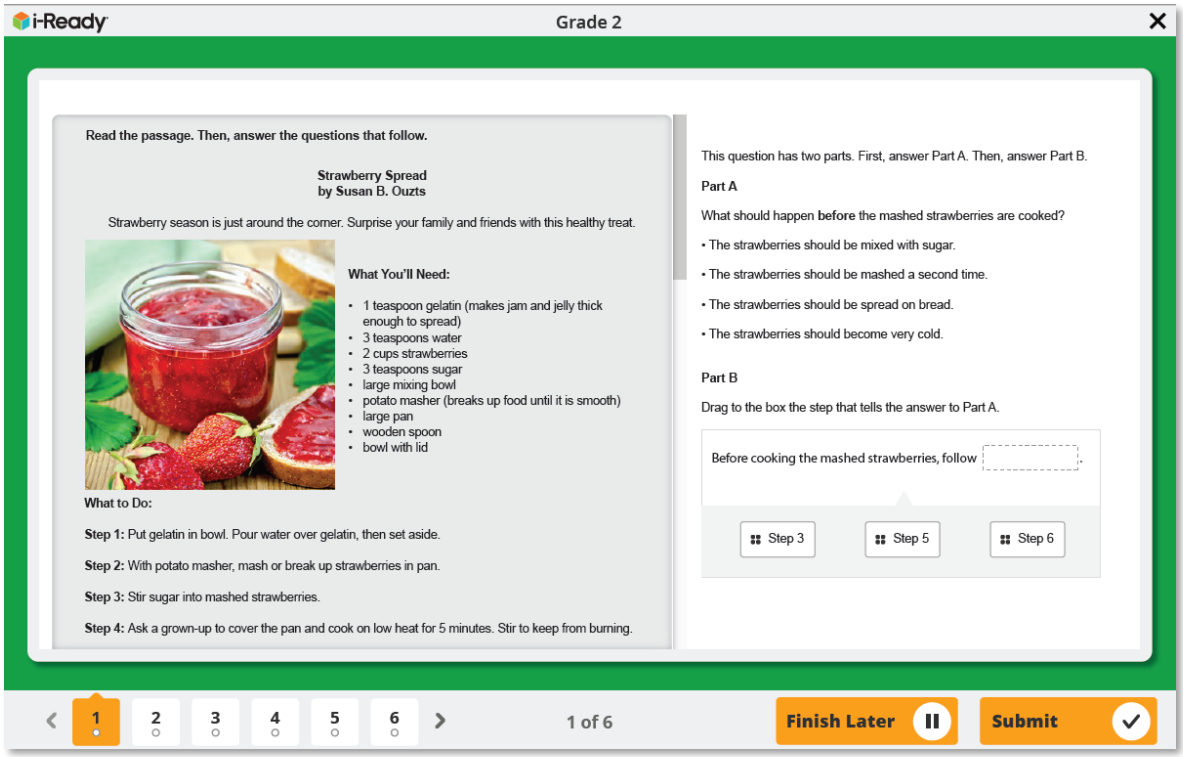


Figure 59. This example grade 2 Standards Mastery item uses a recipe to test skills for a 'Describe Text Connections' ELA standard.

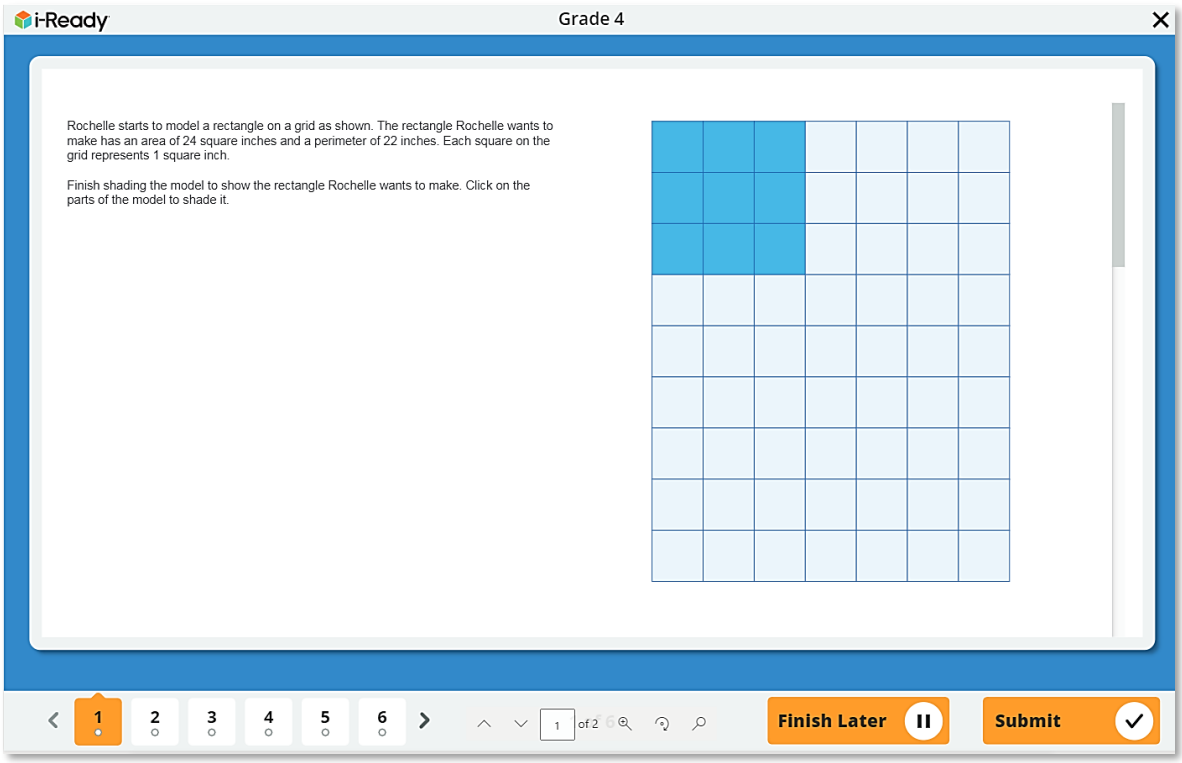


Figure 60. This Standards Mastery grade 4 mathematics item asks students to find the dimensions of a rectangle when given the perimeter and area.

i-Ready Standards Mastery offers a suite of intuitive, user-friendly reports that provide insight into students' mastery of standards and help identify standards on which students need additional instruction. Each of these reports can help guide reteaching and/or enrichment efforts.

We currently provide the following *Standards Mastery* reports and exports:

Standards Mastery Results by Test [Student-level report]: Helps teachers understand how students performed on an assessment, including how students performed on each skill in the assessment. This report also displays the actual assessment taken by a student along with the correct answer, the student's answer, and any misconceptions that may have led to an incorrect or partially correct answer. This information can help teachers understand which concepts an individual student need support with and potential reasons why.

Standards Mastery Results by Test [Class-level report]: Shows how a class performed on an assessment, including how they performed on each skill in the assessment. The report lists the number of students in each level (Beginning, Progressing, and Proficient) on each standard and the assessment overall. The report includes common misconceptions and instructional resources for each standard. There is a link to view the test; the report presents the number of students who got each question correct, partially correct, or incorrect. Links let educators view each student's results with item analysis. Status information provided on the report includes the number of students assigned the assessment, the number of students who completed the assessment, the date the assessment was completed, and the time taken to complete the assessment.

Standards Mastery Status [Class-level report]: Allows educators to monitor student completion of *Standards Mastery* assessments. Provides teachers with information (not started, in progress with percentage completed, or completed with assessment score) about current *Standards Mastery* assessments.

Standards Mastery Results by Test [District/School-level report]: Lists the results for a specific school, or all schools in a district, by standard and assessment, including the average score, percent of students in category (Beginning, Progressing, and Proficient), the number of students assigned the assessment, and percent of students who completed the assessment.

Standards Mastery Results Year-to-Date (YTD) [District/School-level report]: Provides a view of the performance of a specific school, or all schools in a district, on skills assessed during the current academic year, across all assessments. This report can help administrators understand how students are progressing towards mastering their grade-level standards.

Standards Mastery Results YTD Export: Provides administrators with each student's performance on standards assessed during the academic year, across all assessments. Administrators can then determine which specific students or subgroups of students may need additional instructional support.

Standards Mastery Results by Test Export: Provides administrators with each student's performance on an assessment and on each skill in the assessment, for all assessments taken during the academic year.

Standards Mastery reports provide resources for differentiated instructional support. Differentiated Instructional Resources provide targeted instructional information and recommended resources for each standard/substandard(s) covered within an assessment form.

Teachers can click on the PDF icon under Resources icon on any report to access this information, as shown in Figure 61.

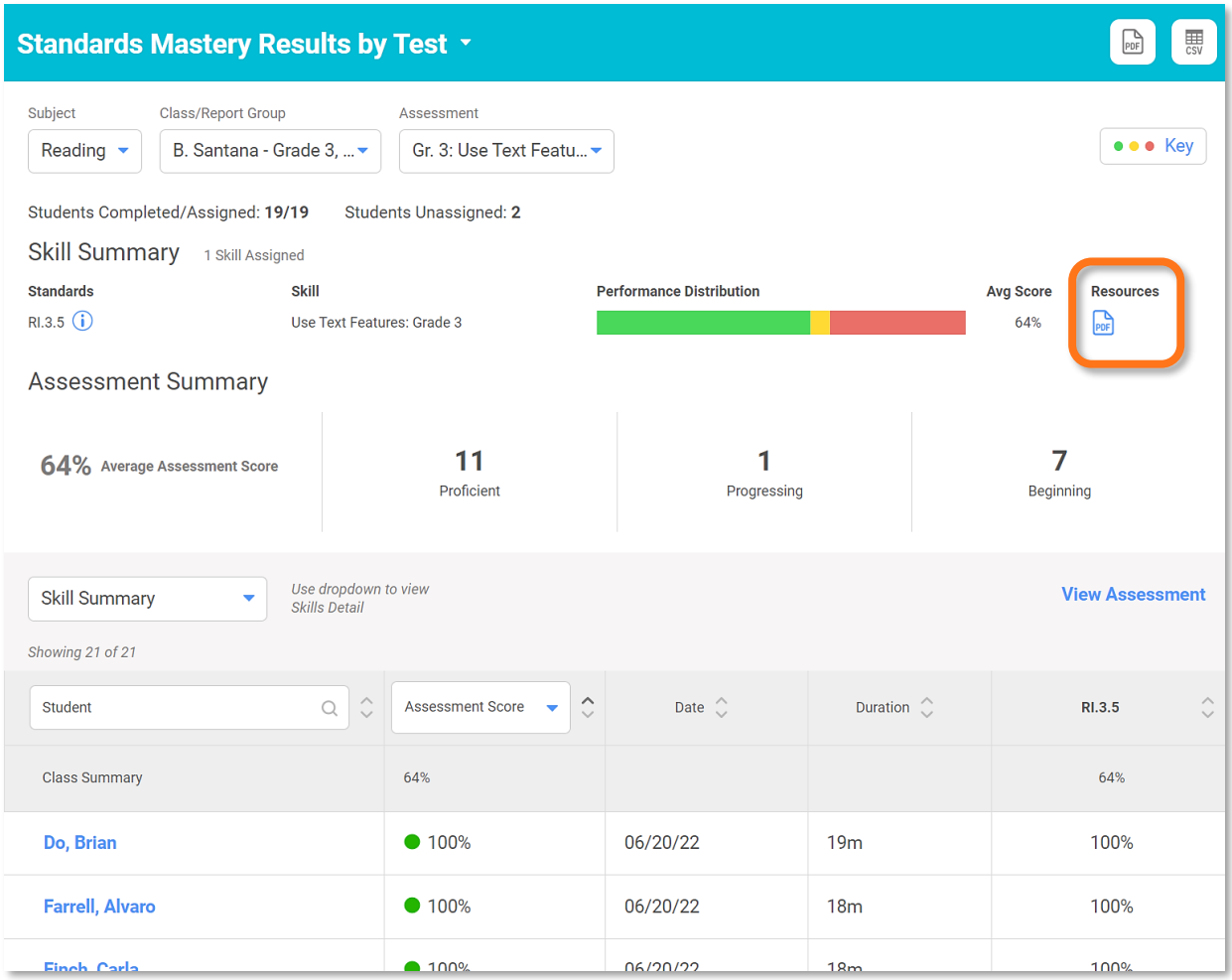
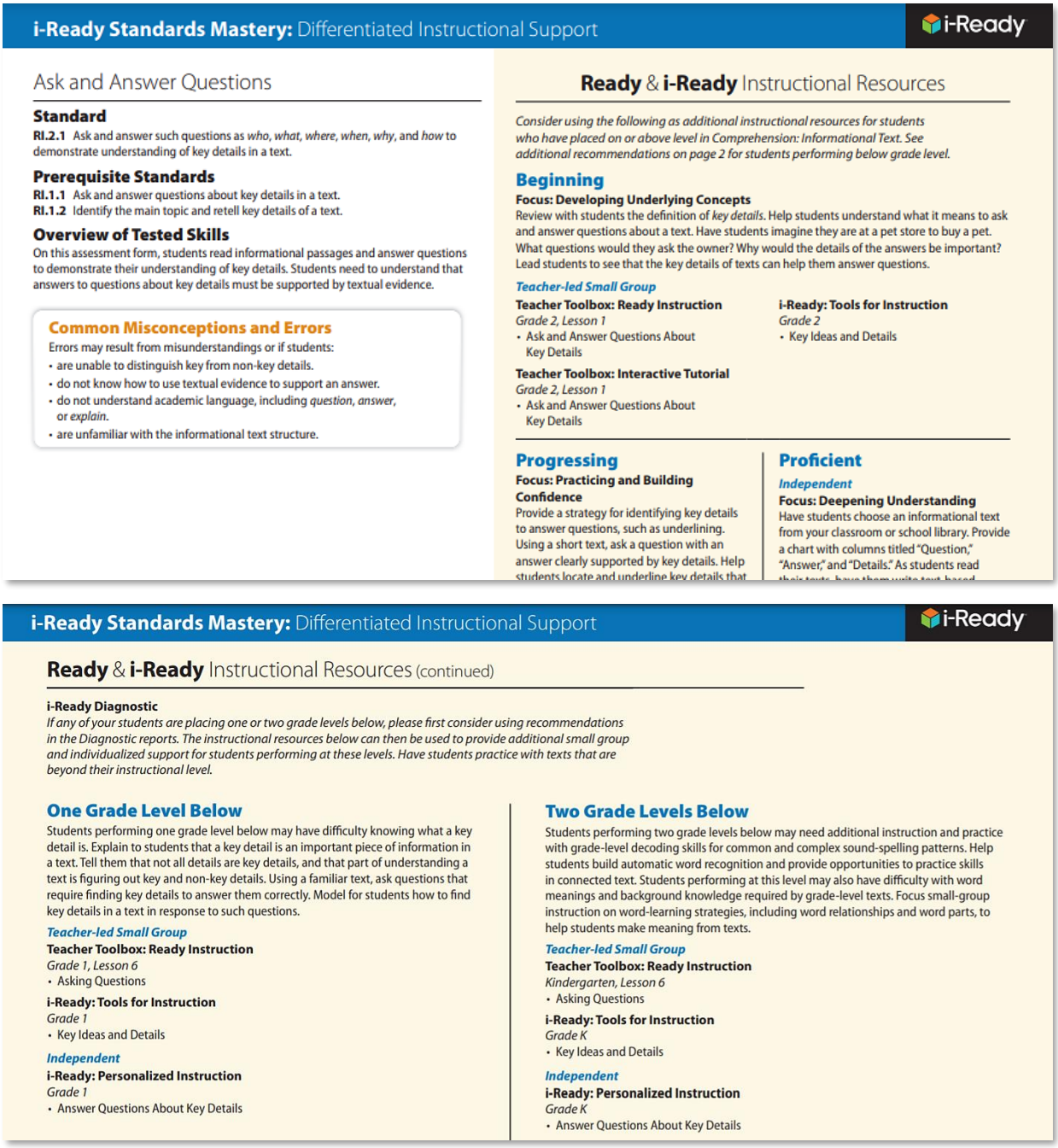


Figure 61. With the Standards Mastery Results by Test report, educators can access resources to help provide differentiated instructional support for each standard.

Following the overview section, each Differentiated Instructional Resources document recommends standard-specific instructional resources for students who have placed on or above chronological grade level and for students who have placed one or more grade levels below chronological grade level on the *Diagnostic* (Figure 62, Figure 63). Recommended instructional resources are accessed through Tools for Instruction, *Personalized Instruction* online lessons, or the digital *Teacher Toolbox*.



i-Ready Standards Mastery: Differentiated Instructional Support

i-Ready

Ask and Answer Questions

Standard

RI.2.1 Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text.

Prerequisite Standards

RI.1.1 Ask and answer questions about key details in a text.
RI.1.2 Identify the main topic and retell key details of a text.

Overview of Tested Skills

On this assessment form, students read informational passages and answer questions to demonstrate their understanding of key details. Students need to understand that answers to questions about key details must be supported by textual evidence.

Common Misconceptions and Errors

Errors may result from misunderstandings or if students:

- are unable to distinguish key from non-key details.
- do not know how to use textual evidence to support an answer.
- do not understand academic language, including *question*, *answer*, or *explain*.
- are unfamiliar with the informational text structure.

Ready & i-Ready Instructional Resources

Consider using the following as additional instructional resources for students who have placed on or above level in Comprehension: Informational Text. See additional recommendations on page 2 for students performing below grade level.

Beginning

Focus: Developing Underlying Concepts
Review with students the definition of *key details*. Help students understand what it means to ask and answer questions about a text. Have students imagine they are at a pet store to buy a pet. What questions would they ask the owner? Why would the details of the answers be important? Lead students to see that the key details of texts can help them answer questions.

Teacher-led Small Group

Teacher Toolbox: Ready Instruction
Grade 2, Lesson 1
- Ask and Answer Questions About Key Details

Teacher Toolbox: Interactive Tutorial
Grade 2, Lesson 1
- Ask and Answer Questions About Key Details

i-Ready: Tools for Instruction
Grade 2
- Key Ideas and Details

Progressing

Focus: Practicing and Building Confidence
Provide a strategy for identifying key details to answer questions, such as underlining. Using a short text, ask a question with an answer clearly supported by key details. Help students locate and underline key details that

Proficient

Independent

Focus: Deepening Understanding
Have students choose an informational text from your classroom or school library. Provide a chart with columns titled "Question," "Answer," and "Details." As students read

i-Ready Standards Mastery: Differentiated Instructional Support

i-Ready

Ready & i-Ready Instructional Resources (continued)

i-Ready Diagnostic
If any of your students are placing one or two grade levels below, please first consider using recommendations in the Diagnostic reports. The instructional resources below can then be used to provide additional small group and individualized support for students performing at these levels. Have students practice with texts that are beyond their instructional level.

One Grade Level Below

Students performing one grade level below may have difficulty knowing what a key detail is. Explain to students that a key detail is an important piece of information in a text. Tell them that not all details are key details, and that part of understanding a text is figuring out key and non-key details. Using a familiar text, ask questions that require finding key details to answer them correctly. Model for students how to find key details in a text in response to such questions.

Teacher-led Small Group

Teacher Toolbox: Ready Instruction
Grade 1, Lesson 6
- Asking Questions

i-Ready: Tools for Instruction
Grade 1
- Key Ideas and Details

Independent

i-Ready: Personalized Instruction
Grade 1
- Answer Questions About Key Details

Two Grade Levels Below

Students performing two grade levels below may need additional instruction and practice with grade-level decoding skills for common and complex sound-spelling patterns. Help students build automatic word recognition and provide opportunities to practice skills in connected text. Students performing at this level may also have difficulty with word meanings and background knowledge required by grade-level texts. Focus small-group instruction on word-learning strategies, including word relationships and word parts, to help students make meaning from texts.

Teacher-led Small Group

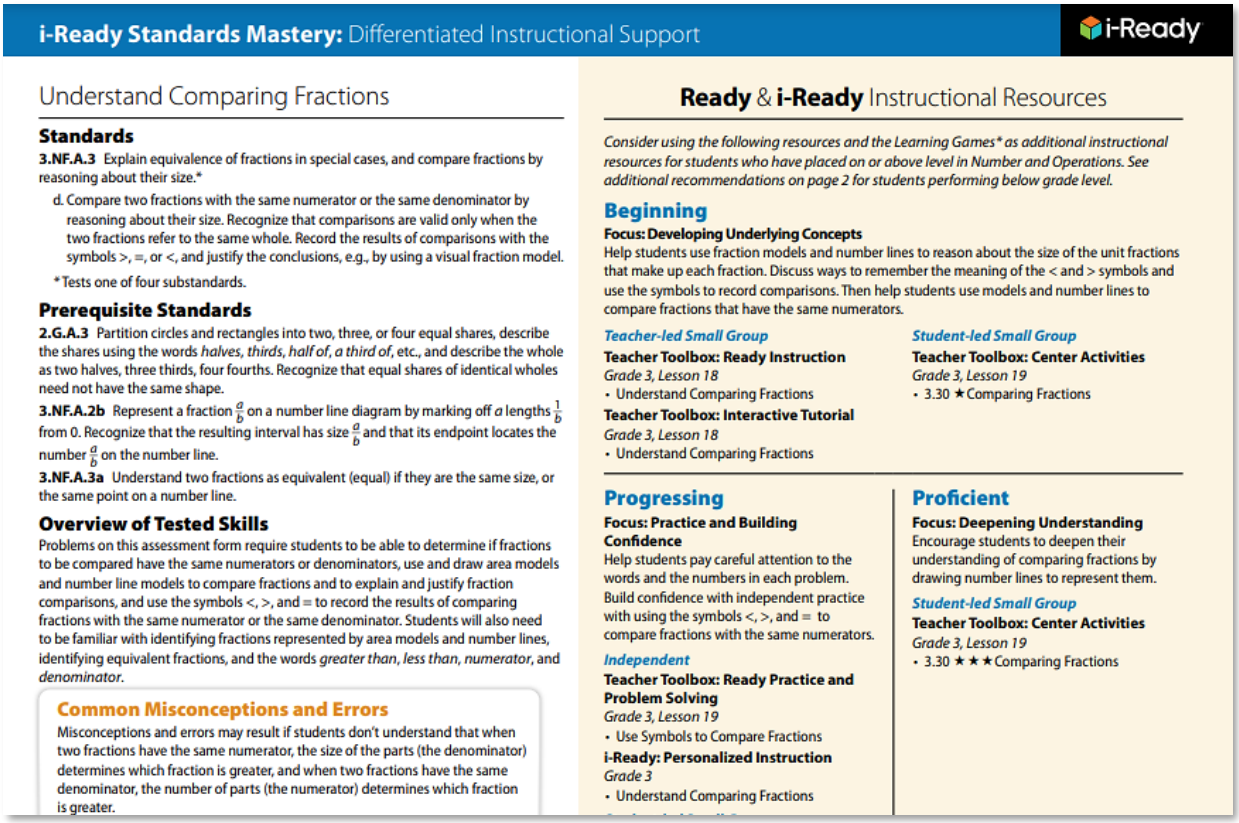
Teacher Toolbox: Ready Instruction
Kindergarten, Lesson 6
- Asking Questions

i-Ready: Tools for Instruction
Grade K
- Key Ideas and Details

Independent

i-Ready: Personalized Instruction
Grade K
- Answer Questions About Key Details

Figure 62. Standards Mastery Differentiated Instructional Support pages offer targeted instructional recommendations for students who placed on or above level and for students who placed one or more grades below level on the *Diagnostic*. The excerpts shown here are for reading grade 2.



i-Ready Standards Mastery: Differentiated Instructional Support

i-Ready

Understand Comparing Fractions

Standards

3.NF.A.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.*

d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

*Tests one of four substandards.

Prerequisite Standards

2.G.A.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves, thirds, half of, a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

3.NF.A.2b Represent a fraction $\frac{a}{b}$ on a number line diagram by marking off a lengths $\frac{1}{b}$ from 0. Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line.

3.NF.A.3a Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

Overview of Tested Skills

Problems on this assessment form require students to be able to determine if fractions to be compared have the same numerators or denominators, use and draw area models and number line models to compare fractions and to explain and justify fraction comparisons, and use the symbols <, >, and = to record the results of comparing fractions with the same numerator or the same denominator. Students will also need to be familiar with identifying fractions represented by area models and number lines, identifying equivalent fractions, and the words *greater than, less than, numerator*, and *denominator*.

Common Misconceptions and Errors

Misconceptions and errors may result if students don't understand that when two fractions have the same numerator, the size of the parts (the denominator) determines which fraction is greater, and when two fractions have the same denominator, the number of parts (the numerator) determines which fraction is greater.

Ready & i-Ready Instructional Resources

Consider using the following resources and the Learning Games as additional instructional resources for students who have placed on or above level in Number and Operations. See additional recommendations on page 2 for students performing below grade level.*

Beginning

Focus: Developing Underlying Concepts

Help students use fraction models and number lines to reason about the size of the unit fractions that make up each fraction. Discuss ways to remember the meaning of the < and > symbols and use the symbols to record comparisons. Then help students use models and number lines to compare fractions that have the same numerators.

Teacher-led Small Group

Teacher Toolbox: Ready Instruction
Grade 3, Lesson 18
- Understand Comparing Fractions

Teacher Toolbox: Interactive Tutorial
Grade 3, Lesson 18
- Understand Comparing Fractions

Student-led Small Group

Teacher Toolbox: Center Activities
Grade 3, Lesson 19
- 3.30 ★Comparing Fractions

Progressing

Focus: Practice and Building Confidence

Help students pay careful attention to the words and the numbers in each problem. Build confidence with independent practice with using the symbols <, >, and = to compare fractions with the same numerators.

Independent

Teacher Toolbox: Ready Practice and Problem Solving
Grade 3, Lesson 19
- Use Symbols to Compare Fractions

i-Ready: Personalized Instruction
Grade 3
- Understand Comparing Fractions

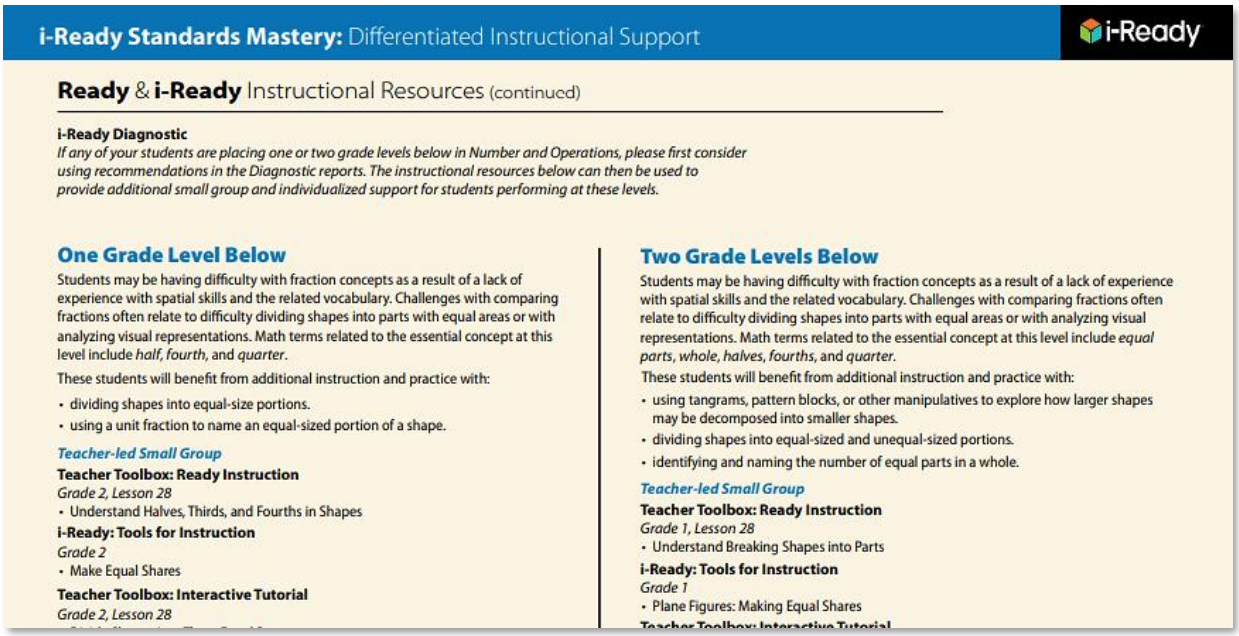
Proficient

Focus: Deepening Understanding

Encourage students to deepen their understanding of comparing fractions by drawing number lines to represent them.

Student-led Small Group

Teacher Toolbox: Center Activities
Grade 3, Lesson 19
- 3.30 ★★★Comparing Fractions



i-Ready Standards Mastery: Differentiated Instructional Support

i-Ready

Ready & i-Ready Instructional Resources (continued)

i-Ready Diagnostic

If any of your students are placing one or two grade levels below in Number and Operations, please first consider using recommendations in the Diagnostic reports. The instructional resources below can then be used to provide additional small group and individualized support for students performing at these levels.

One Grade Level Below

Students may be having difficulty with fraction concepts as a result of a lack of experience with spatial skills and the related vocabulary. Challenges with comparing fractions often relate to difficulty dividing shapes into parts with equal areas or with analyzing visual representations. Math terms related to the essential concept at this level include *half, fourth*, and *quarter*.

These students will benefit from additional instruction and practice with:

- dividing shapes into equal-size portions.
- using a unit fraction to name an equal-sized portion of a shape.

Teacher-led Small Group

Teacher Toolbox: Ready Instruction
Grade 2, Lesson 28
- Understand Halves, Thirds, and Fourths in Shapes

i-Ready: Tools for Instruction
Grade 2
- Make Equal Shares

Teacher Toolbox: Interactive Tutorial
Grade 2, Lesson 28

Two Grade Levels Below

Students may be having difficulty with fraction concepts as a result of a lack of experience with spatial skills and the related vocabulary. Challenges with comparing fractions often relate to difficulty dividing shapes into parts with equal areas or with analyzing visual representations. Math terms related to the essential concept at this level include *equal parts, whole, halves, fourths*, and *quarter*.

These students will benefit from additional instruction and practice with:

- using tangrams, pattern blocks, or other manipulatives to explore how larger shapes may be decomposed into smaller shapes.
- dividing shapes into equal-sized and unequal-sized portions.
- identifying and naming the number of equal parts in a whole.

Teacher-led Small Group

Teacher Toolbox: Ready Instruction
Grade 1, Lesson 28
- Understand Breaking Shapes into Parts

i-Ready: Tools for Instruction
Grade 1
- Plane Figures: Making Equal Shares

Teacher Toolbox: Interactive Tutorial

Figure 63. Standards Mastery Differentiated Instructional Support pages offer targeted instructional recommendations for students who placed on or above level and for students who placed one or more grades below level on the *Diagnostic*. The excerpts shown here are for mathematics grade 3.

i-Ready Literacy Tasks—Progress Monitoring

i-Ready Literacy Tasks allow for more targeted understanding of reading skills of students who may need further evaluation, providing educators with tools to observe, quantify, and record student reading behaviors.

When used in combination with *i-Ready Diagnostic*, *Literacy Tasks* provide insight into student progress toward reaching grade-level expectations for foundational reading and fluency skills. *Literacy Tasks* progress monitoring forms allow for progress monitoring at various frequencies including on a weekly, biweekly, or monthly schedule across five key areas:

- Letter Sound Fluency (20 forms per grade in grades K–1)
- Phoneme Segmentation Fluency (20 forms per grade in grades K–1)
- Word Recognition Fluency (20 forms per grade in grades K–1)
- Pseudoword Decoding Fluency (20 forms per grade in grades K–1)
- Passage Reading Fluency (24 forms per grade in grades 1–6, excluding fall grade 1)

Embedded Progress Monitoring

If *Personalized Instruction* is implemented, *i-Ready* also provides embedded progress monitoring. The final portion of each *Personalized Instruction* online lesson is a short quiz designed to assess students' understanding of the focus skill of that lesson. Results from this assessment populate the *Personalized Instruction* reports, available at the student and class levels.

The *Personalized Instruction* Summary report at the student level (Figure 64) synthesizes a wealth of data about an individual student's performance in *Personalized Instruction* lessons, including the number and percentage of lessons the student has passed. The detailed results provided for each lesson the student has taken can be filtered by domain and passed/not passed, and can be sorted by scores, lesson time-on-task, date started, and date finished.

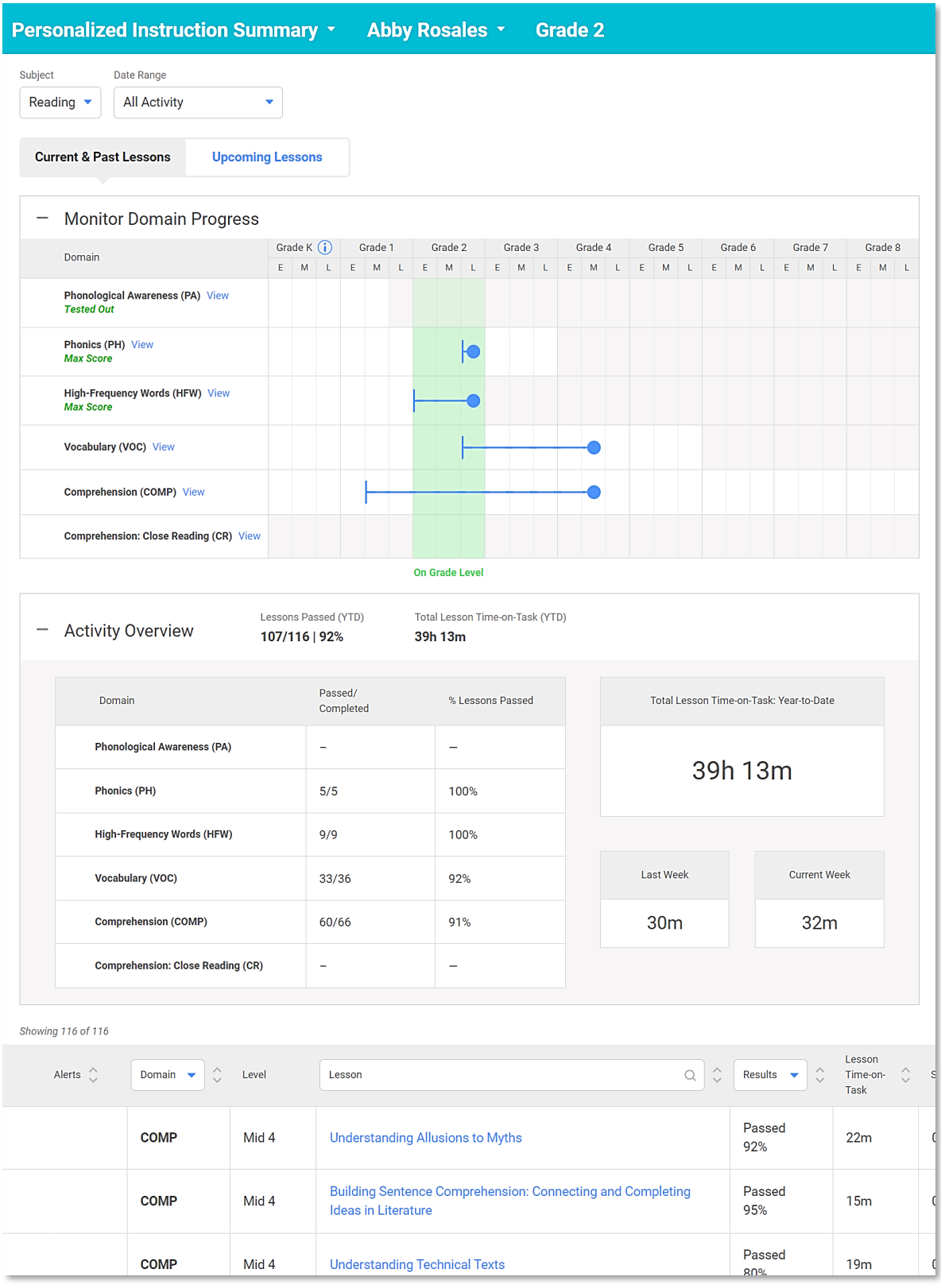


Figure 64. The *Personalized Instruction* Summary (student) report shows the progress each student is making within *Personalized Instruction*, with details provided for each domain. This report shows where teachers should intervene to help students who need additional support.

n. Supports differentiated instruction (i.e., ability to group students and get help with instructional planning for each group).

i-Ready comprehensive reports track student progress toward mastery of the standards, map student performance to intervention tiers and assign students to appropriate instructional groups, and explicitly inform instructional decision-making.

For example, teachers use the Instructional Groupings report to offer targeted support to students performing at different levels. This report guides teachers in grouping students so that those who need support with the same skills can get the most out of small-group instruction. It affords educators flexibility in categorizing students and targeting efficient and effective remediation.

The Instructional Groupings report at the class-level (Figure 65) groups students with similar instructional needs and, for each group, provides detailed instructional priorities and classroom resources to support differentiated instruction. This report answers the questions:

- Which students fall into each of three tiers, based on their performance?
- How do I plan my differentiated instruction and identify the right resources to best support my students' needs?

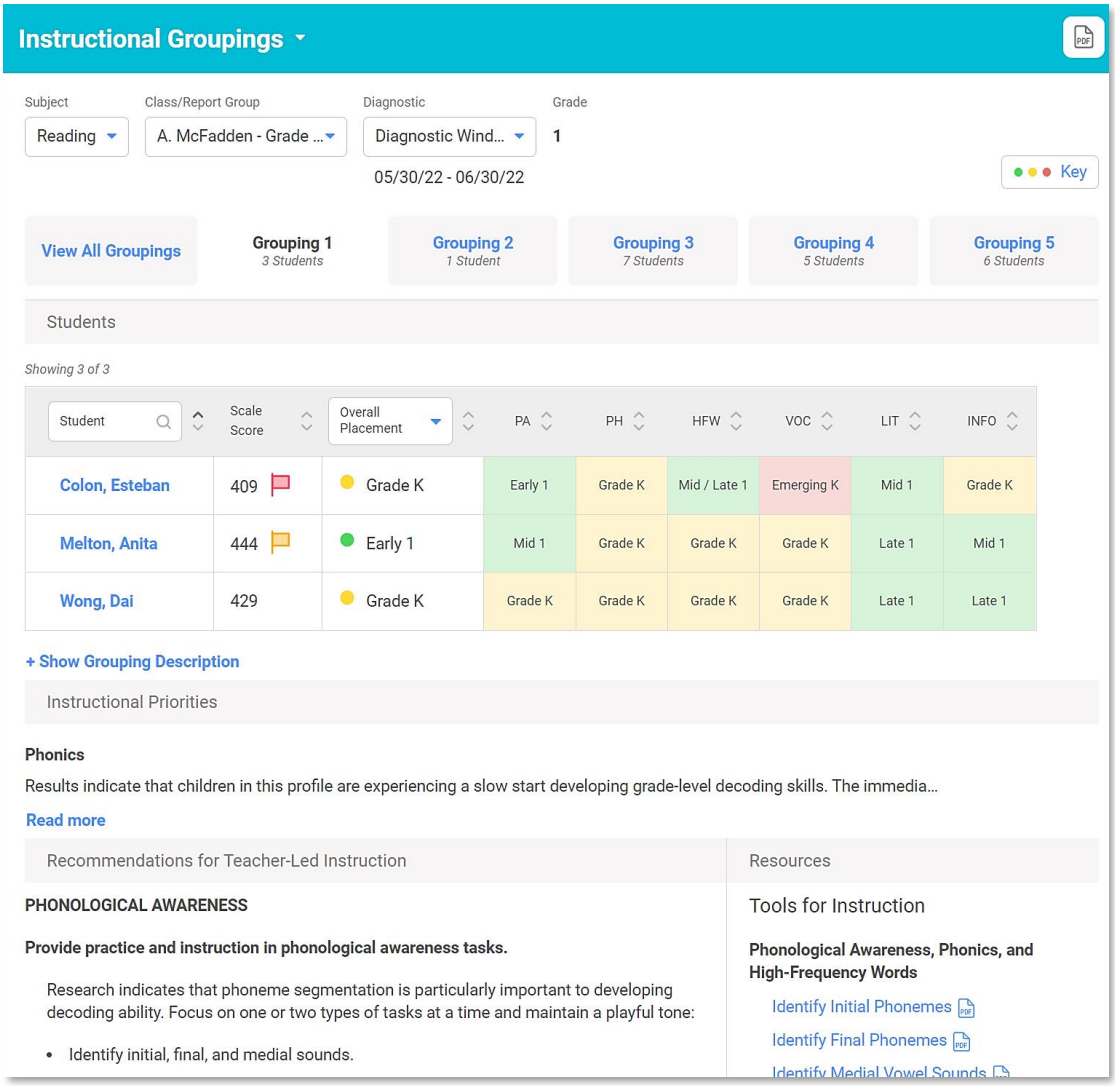


Figure 65. The Instructional Groupings report groups students who have performed similarly in skills assessed.

The Instructional Groupings report at the school level groups students in each grade at a school with similar instructional needs. The report provides detailed instructional priorities and classroom resources to support differentiated instruction for each group. This report answers the question: “Across classes within a grade level at a specific school, which students have similar instructional needs, and how can they be grouped for instruction?”

Additionally, the Instructional Groupings report points to relevant Tools for Instruction. These are short, downloadable PDF resources for teacher-led instruction that are tied directly to students’ skills gaps. Tools for Instruction provide step-by-step lesson plans, complete with background on the targeted skill, a variety of ways to approach teaching or reinforcing the skill, and how to identify and remedy common student misconceptions.

o. Provides reports by district, school, grade, class, student, or academic performance and the ability to sort these reports by student and score.

i-Ready provides reports by district, school, grade, class, or academic performance. Please see response to Section IIB question 1, part c beginning on page 105 for a discussion of the ways in which *i-Ready* data may be disaggregated to analyze student performance.

Section II C. Additional Requirements

1. The Successful Offeror's monitoring tool shall export/import data and work with HCPS' current environment and student information system.

Curriculum Associates can provide daily automated student data exports that CUSD can import into its data systems. *i-Ready* data may be exported as CSV files and then saved to Excel or other CSV-compatible application for external analyses.

Authorized District users can also run a data export that includes available student information. This feature allows educators to export *i-Ready* assessment and instruction data for each student in their account. The export is generated in a CSV file type, which can then be used in part or whole as an import to other CSV-compatible systems.

School and District administrators also have the option to manually pull standard export files as needed within the *i-Ready* platform. When logged into *i-Ready*, administrators can access exports by clicking on the reports tab in the user interface.

2. The Successful Offeror's solution shall provide a development process, including but not limited to alignment, item writing, content review, and quality control and ensure alignment of the assessment of item to the Virginia Standards of Learning for content and rigor.

Curriculum Associates has provided full details of the development process in part b. Development Process beginning on page 145 of this response.

3. The Successful Offeror should provide ongoing professional development training for users to support the effective use of assessment data.

Curriculum Associates provides ongoing professional development training to support the effective use of assessment data. Please see **part c. Professional Development** of this section, beginning on page 151 151 for full details.

4. The Successful Offeror should provide resources for ongoing in-house training for new employees.

We have included a draft implementation and support plan which provides resources for ongoing in-house training for new employees in the Demonstrated Compliance with the Scope of Services section of this response, beginning on page 142 of this response, including but not limited to being part of the Tailored Support key implementation milestone.

5. The Successful Offeror should provide resources for professional development training on updates to the system.

Curriculum Associates offers multiple layers of well-coordinated support to ensure that updates to the system which are communicated via release notes are incorporated into the asynchronous on-demand professional development on the https://*i-Ready*central.com/ website, as well as integrated with ongoing onsite professional development (described in part c. Professional Development beginning on page 151). In addition, our Partner Success team monitors implementation to ensure that *i-Ready* is implemented with fidelity and that any training needs that arise (related to system updates or otherwise) are addressed.

6. The Successful Offeror shall provide release notes for system updates/ upgrades.

Release notes posted to the *i-Ready* teacher and administrator dashboards explain new software features, and your assigned Partner Success Manager can answer questions users may have about the new product features.

7. The Successful Offeror shall provide advance notice of automated upgrades.

We alert customers of upcoming upgrades on the *i-Ready* site banner one to two weeks prior to a release. Unplanned events are also communicated on the banner, as well as on our system check page at https://cdn.*i-Ready*.com/systemcheck.

8. Offeror must provide a sandbox environment for HCPS to test new ideas and questions without affecting reporting and current functionality

Please see part d. Sandbox environment beginning on page 155 for a detailed discussion of the ways that Curriculum Associates may be able to support the requested sandbox environment.

Section II D. Technical Components - Appendix A

Please see **Appendix A** for responses to each of the Integration, Software as a Service (SaaS) Solution, Web Accessibility, Computer Network and Specifications, and General technical components requirements.

Demonstrated Compliance with the Scope of Services

a. Timeline

a. a timeline for implementation and training.

Draft Implementation and Support Plan: *i-Ready* New Users

Key Implementation Milestones for HCPS

Table 5 covers key milestones in planning, account setup and delivery, professional development, and program review/evaluation. Exact dates will be determined with the District.

Table 5. Key Implementation Milestones

Milestone	Why	When	Who
1. Implementation Planning	Determine or solidify District/ school goals, participants, and deliverables to establish accountability measures	Soon after award	District/school leadership team; Curriculum Associates' *i-Ready Partners*,[1] with Partner Success Manager as key point of contact
2. Account Setup and Delivery	Import all users into *i-Ready* prior to implementation/ deployment	Immediately after implementation planning	School/District coordinators and data manager; Curriculum Associates' Partner Success Manager
3. Centralized[2] Professional Development: *Data-Driven Leadership Best Practices I*	Help leaders establish effective implementation strategies and foundations that unlock *i-Ready's* potential to drive student growth	To be determined with District	Principals; other site-level leaders, e.g., instructional coaches; District leaders responsible for implementation; Curriculum Associates' Professional Development Specialist(s)

Table 5. Key Implementation Milestones			
Milestone	**Why**	**When**	**Who**
4. Centralized[2] Professional Development: *Getting Good Data with i-Ready*	Educators learn to understand *i-Ready*'s potential for student growth and plan for a successful first year of implementation	Prior to first *Diagnostic* and after account set-up	Teachers and instructional coaches; Curriculum Associates' Professional Development Specialist(s); leaders encouraged to attend. Limit of 30 participants.
5. Onsite[2] Professional Development: *Using Data to Plan Instruction*	Educators analyze their own *i-Ready* data to create instructional plans that help students access grade-level instruction	After first *Diagnostic*	Teachers and instructional coaches; Curriculum Associates' Professional Development Specialist(s); leaders encouraged to attend. Limit of 30 participants.
6. Onsite Professional Development: Tailored Support	Meet specific, building-level user needs identified via collaboration with District or site leaders	Between *Diagnostic* administration windows	Teachers; Curriculum Associates' Professional Development Specialist(s). Limit of 30 participants.
7. Program Review and Evaluation	Review results, evaluate program efficacy, and revisit/revise Professional Development support plan	After second and third *Diagnostic* assessments	District and school leadership team; Curriculum Associates' *i-Ready Partners*

Please see the professional development brochure in **Appendix H** for more details on courses.

Assessments and Instruction

summarizes the school year's key assessments and ongoing instruction.

Table 6. Key Assessments and Ongoing Instruction			
Element	**Why**	**When**	**Who**
Diagnostic **Assessment Administration** 3 times/school year	Pinpoint student strengths and needs to the sub-skill level, with comprehensive reports and resources to inform instructional decision making	Recommend the beginning of the school year, mid-year, and end of the school year (12–18 weeks between administrations)	Students in grades K–8, teachers, and assessment administrators
Growth Monitoring **Assessment Administration** Included but optional to administer	Monitor ongoing student growth between administrations of the full *Diagnostic*	*Growth Monitoring* assessments are designed for monthly administration but may be administered more frequently, if desired	Teachers and students in grades K–8
Standards Mastery **Assessment Administration** Included but optional to administer	Assess standards, mapping to the District's/school's unique scope and sequence, allowing educators to assess mastery of the standards they just covered	May be administered throughout the school year to align with the school's or District's scope and sequence	Teachers and students in grades 2–8
Literacy Tasks **Assessment Administration** Included but optional to administer	A suite of companion tasks that teachers can administer offline to assess students' foundational and fluency skills	Benchmark Tasks may be used three times a year; Progress Monitoring Tasks are used for intervention	Teachers and students in grades K–6
Teacher-Led and Online Instruction (*Personalized Instruction* and Tools for Instruction)	Support student learning with targeted, differentiated instruction delivered in-class by teachers as well as online via *Personalized Instruction*	Ongoing throughout the school year	Teachers and their students performing at grade levels K–8

Ongoing Support

Curriculum Associates' Partner Success Manager will monitor school *i-Ready* usage throughout the school year to ensure established procedures are being followed and conduct email and phone call check ins.

In addition to embedded support and professional development, with the purchase of *i-Ready* users have access to our robust user-support website, *i-Ready Central*. Valuable supplements to onsite professional development, the website offers on-demand, 24/7 access to best-practice tips, how-to guides, videos, webinars, planning tools, and additional training and implementation resources. Educators can watch videos and webinars and download resources from any device or browser.

We also provide the Educator Prep Series and Collaborative Learning Extensions (CLEs) to school and District leaders to help them continue professional learning with teachers throughout the school year.

- The Educator Prep Series is a flexible complement to and extension of our live professional development. Available on demand to help educators extend or refresh their learning, these short modules are interactive vehicles for learning that ask educators to think critically and deeply about how they are using the program in their classroom. Focus areas include setting and measuring growth goals, using data to plan instruction, differentiating instruction, and more.
- CLEs support faculty and staff development efforts by prompting reflection and deepening practice between formal professional development sessions. Designed for flexible use within current data and collaboration routines, they can be incorporated into professional learning communities, in-service days, or other staff development opportunities. A CLE includes resources for leaders, teachers, or coaches to facilitate collaborative meetings with colleagues.

Support in Year Two and Beyond

In subsequent years of implementation, the needs of teachers and leaders become more complex as they move from basic product knowledge to focus more on impactful changes in teaching practices. To meet those needs, we also offer a **Practicing Users** and **Advanced Users** professional development curriculum for succeeding years of implementation. In years two and beyond, we will work with HCPS to determine the best path to meet the needs of educators and students.

Further, the support from *i-Ready Partners* and via online resources—as described in the Ongoing Support section above—continues in every year of the contract.

[1] Dedicated support team, including Partner Success Management, Professional Development, and Technical Support staff.
[2] Centralized = Participants from multiple sites/schools/buildings attend a session at one central location. Onsite = Participants from one site/school/building attend a session held at that same location.

b. Development Process

b. describe the development process related to alignment, item writing content review, and quality control, and the process used to ensure alignment assessment of items to the Virginia Standards of Learning for content and rigor.

In designing and developing *i-Ready Diagnostic* for reading and mathematics, we followed guidelines outlined by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education for best practices in assessment development.

Curriculum Associates uses a well-established method for developing high-quality, rigorous, and fair passages and items. The process outlined in Figure 66 is representative of the process used to create items and passages for *i-Ready Diagnostic*. The other assessments in the *i-Ready* suite of assessments adhere mostly to the same process, but may not include psychometric data, or may require different steps than those laid out below.

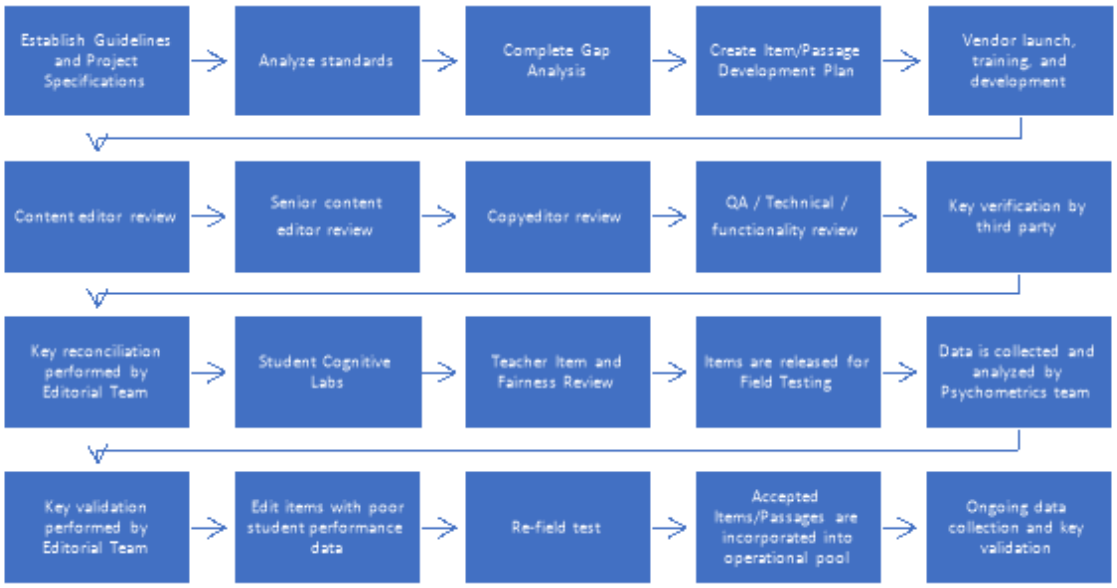


Figure 66. Curriculum Associates' editorial review process for *i-Ready Diagnostic* items.

Establish Guidelines and Project Specifications

When starting a project, the first step in the process is to establish a set of guidelines and project specifications based on the purpose of the assessment. Curriculum Associates employs guiding documents that include, but are not limited to, the following:

1. Item Checklist
2. Passage Checklist
3. Text Complexity Rubric
4. Cultural and Literacy Responsiveness Rubric
5. Style Guide
6. Bias and Sensitivity Guidelines

Any of these documents could be modified or appended based on project needs. For example, if an assessment required a specific new item type, the style guides would be updated to reflect information about the new item type. This could include the kind of cognitive processes the item type should be used to measure, the specifications of a new template for this item type, specifications for stimuli that can be used with this item type, etc.

Once the purpose of the assessment is clear and the guiding documents are updated appropriately, the next step is to review the skills and knowledge to be assessed. This often manifests in a state's set of standards.

Analyze Standards

Curriculum Associates' content editors diligently review research materials to ensure that their interpretation of the standards match what is practiced in schools across the country. Research materials reviewed include, but are not limited to, resources from the following:

- Progressions for the Common Core State Standards for Mathematics
- The K–12 resources found on the Louisiana Department of Education's Louisiana Believes website
- The Engage New York website's standards resources
- Illustrative Mathematics
- The Arizona Department of Education website's standards resources
- The Ohio Department of Education website's standards resources
- The North Carolina Department of Public Instruction website's standards resources
- The Kansas Department of Education website's standards resources
- The Virginia Department of Education website's standards resources

By reviewing a wealth of materials and noting specific constraints or content limits on how standards are assessed, we can ensure that not only are items tightly aligned to the content standards, but that they are aligned in such a way that meets the common interpretations of the standards across the country.

Once content editors are familiar with the expectations in the standards that are to be assessed, they can then proceed to the next step.

Complete Gap Analysis

Curriculum Associates' content editors review the skills and knowledge that already exist in the operational pool of items for any given assessment to see which of the new standards to be assessed are already fully covered, partially covered, or not covered at all.

In the first step, certain criteria will be laid out for each assessment. For example: *How close do the item types have to match the item types on a state test? What is the expected calculator use for the items? What percent of the passages can be commissioned versus previously published?*

All of these considerations, and anything else that is relevant that had been incorporated into the project specifications, is considered during the gap analysis.

Create Item/Passage Development Plan

After the gap analysis is complete, the content project leads work with the content editors to develop passage and item development plans. These plans detail specifications for passages, which may include the following:

- Number of passages per grade
- Number of items per passage
- Distribution of item type per passage
- Percent of passages previously published
- Distribution of passage genres
- Distribution of passage text complexity
- Percent of passages that are authentically, culturally, and linguistically responsive

Additionally, these plans detail specifications for items, which may include the following:

- Number of items per grade and domain
- Distribution of standards to be measured
- Distribution of item types
- Distribution of cognitive complexity (e.g., Depth of Knowledge)

Once these plans are completed, appropriate training documents are gathered or developed, if necessary. Once that task is completed, the actual development of the passages and the items for the project can begin.

Conduct Vendor Launch, Training, and Development

We have cultivated relationships with trusted vendors to ensure the development of high-quality materials. To ensure the success of development projects, Curriculum Associates staff develops rigorous trainings for vendors to ensure that they are clear on all project expectations.

Trainings may be held concurrently or separately on any of the following topics:

- Item Specifications/Checklists
- Passage Specifications/Checklists
- Art Specifications and Item Templates
- Using Authoring Systems
    - Item types
    - Passage Specifications (e.g., Pagination vs. Scrolling)
    - Score Validation
    - Incorporating Alt Text
- Test Specifications and Documentation

Usually, for any new vendor, a small sample of items and/or passages is delivered and reviewed. Curriculum Associates and the vendor will then ensure that the expectations of the project are being met. Once the vendor has the information needed, they move forward with developing the content for the assessments.

Review Items/Passages

Content Editor Review

When a vendor submits an item and/or passage to Curriculum Associates, the first review is called the Content Editor Review. The Content Editor reviews the submission against a checklist of specifications for the item or passage to ensure that each specification is met. In some cases, a simple fix by the Content Editor is all that is needed. In other cases, the item is returned to the vendor with specific instructions on how to make this and future items or passages acceptable for use.

Once the Content Editor has completed their review of the item or passage, they will sign off on it and alert the Senior Content Editor it is ready for their review.

Senior Content Editor Review

The Senior Content Editor has less leeway in editing items or passages. In the previous step, the Content Editor may have done some editing before sending the item on. The Senior Content Editor then ensures that the introduction of any new material did not lead to the item no longer meeting the specifications in the checklist. If there are concerns, the Senior Content Editor works with the Content Editor to address the concerns before signing off on the item and sending it to the next step.

Copy Editor Review

Curriculum Associates contracts with Copy Editors who specialize in copyediting assessment content. When the items and passages come to the Copy Editors, they complete a cold read and check for grammar, usage, and adherence to the specifications in the style guide.

Any changes are reviewed by the Content or Senior Content Editors to ensure that the updates to grammar, usage, or style do not impact the content of the items.

Quality Assurance, Technical, and Functionality Review

Once items have completed all the content and copyedit reads, we do a final check on the items/passages/tests to ensure that test-takers will have no issues answering the items. These reviews include, but are not limited to, the review of sound, video, art, virtual tools, and navigation.

Once these items have passed through all of these content reviews, the items *should* be ready for the next stage of review, or in some cases, field testing or operational use. However, to be certain the items will be scored appropriately, a final check of the keys must take place.

Conduct Key Verification and Key Reconciliation

Ideally, key verification is conducted in such a way to ensure that there is no chance that items will be scored incorrectly. To do this, three people who have not worked on the project will be assigned as key verifiers to take each item. After each item is taken, there are four answers recorded—the answer recorded in the system and the answers for each of the three key verifiers. If there is a conflict with any of the answers, a thorough review of the item is conducted through a key reconciliation process in which there are the following possible outcomes:

1. Keep the answer as is.

2. Change the key.

3. Edit the item and put it through key verification again.

After Key Verification and Key Reconciliation are complete, items are ready for presentation either to students, educators, or other reviewers.

Hold Student Cognitive Labs

Student cognitive labs are, when logistically possible, one of the best ways to ensure that not only the items are solid, but that we can actually see they are eliciting the cognitive processes they are intended to measure. For the most recent cognitive labs that Curriculum Associates has held for *i-Ready* assessments, we used a combination of Think Aloud protocols as well as Cognitive Interviews.

These cognitive labs focused on a carefully selected set of items to ensure that specific research questions could be answered through the analysis of student responses. Among these research questions were:

- Does the item elicit the cognitive processes being measured for students who answer correctly?
- Are there concerns about the navigation of the items or the assessment in general?

The information gained was used to provide validity evidence for the content of the items and to address some navigation issues that were realized during these cognitive labs.

Conduct Teacher Item and Fairness Review

Items will be presented to educator review panels that review items for correct content, alignment to the standards, alignment to cognitive complexity metrics, bias and sensitivity issues, and other criteria. Any items that do not pass the item review are revised and put through the key verification and reconciliation process again.

Once all of these steps are completed, the items are ready for field testing.

Conduct Field Testing and Key Validation

All items are field tested with students on grade level and one grade off-level with a desired n-count of 1,500 students. Once the items have had their requisite views through embedded field testing, the Psychometrics team provides the Assessment Editorial team with items that have been flagged for unexpected psychometric data.

The Assessment Editorial team than reviews each item and decides whether the item will remain operational, be rejected and removed, or be revised and re-field tested. Once the items have passed through the field testing and the key validation review, they are available to be included in the operational pool.

c. Professional Development

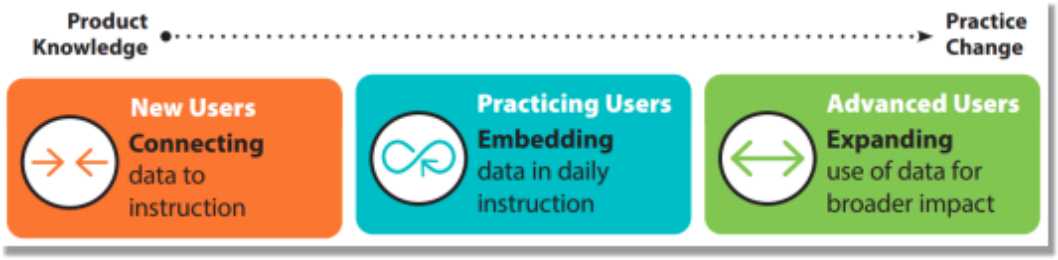
c. describe, in detail, their professional development training to support effective use of the assessment data, in-house training for new employees, training on updates and upgrades to the system.

Professional Development Drives Results

i-Ready has the tools to help HCPS identify, address, and measure progress to plan for instruction to accelerate learning. With more students underprepared for grade-level work, it is essential to know the tools and resources available to impact student growth—particularly for those students who are still learning to read and who are moving from procedural to conceptual mathematics problem solving.

Our professional development equips educators to effectively respond to those student instructional needs by ensuring students receive the right mix of prerequisite instruction, grade-level scaffolding, and precision interventions tied to their *Diagnostic* results. We help educators leverage existing and new features with *i-Ready* to provide targeted, just-in-time teaching and learning informed by data.

Tapping into our integrated, comprehensive network of support, educators learn carefully developed practices built around the most important actions that drive student growth and help educators strive for equity. We carefully scaffold knowledge to help educators use *i-Ready* in a beneficial manner from day one to deeply infuse data-driven practices into everyday instruction, and to bring new techniques and new insights from our ongoing research to new users, advanced users, and everyone in between.



Our professional development curriculum at each stage of implementation addresses a common set of professional learning needs that have been identified from years of observation and feedback on *i-Ready* implementations across the country. Sessions at each phase—New, Practicing, and Advanced—are specifically designed to address those identified needs. We also recognize that every teacher, school, and district is unique, thus we include Tailored Support sessions in each curriculum to meet the unique needs and goals of each of our partnering districts and schools. Since school leaders also play a critical role in managing successful implementations, we offer sessions for District and school leadership to help them plan, monitor, and support teachers and students as they work towards identified *i-Ready* goals.

NOTE: Our professional development may be eligible for federal Elementary and Secondary School Emergency Relief (ESSER) funding to support unfinished learning.

Flexible Professional Development for HCPS

In Table 7, reviewers will find a detailed description of each session in the **New Users** curriculum proposed here for the District. Our professional development can be delivered onsite or remotely and is purposefully designed to help move educators along the path to success with *i-Ready*.

Table 7: *i-Ready* Courses for New Users
Getting Good Data with *i-Ready*
Description: Educators understand *i-Ready*'s potential for student growth and plan for a successful first year of implementation. Getting Good Data with *i-Ready* is the integral first step for educators to begin implementing *i-Ready* and building a classroom data culture with their students. After taking the *i-Ready Diagnostic* themselves, educators learn how to administer the *Diagnostic* for reliable student data and why that unlocks the power of the *Diagnostic* to drive instruction. As time permits, educators further explore i Ready *Personalized Instruction* and *i-Ready* growth measures. **Outcomes:** Motivate and prepare students to do their best on the *Diagnostic* in order to get reliable data to drive instruction. **Format:** The recommended length for this centrally delivered course is three hours, but we work within the flexibility of up to six hours to meet district needs. Computer and web access are strongly recommended. This session may be delivered virtually or in person. **Audience:** • Teachers and instructional coaches • Leaders are also encouraged to attend
Using Data to Plan Instruction
Description: Educators analyze their own *i-Ready* data to create instructional plans that help students access grade-level instruction. Using Data to Plan Instruction guides educators to use effective data practices to analyze their own students' data from the first *Diagnostic*. Utilizing a data analysis process, educators uncover new insights and information about student performance to build on strengths and plan instructional scaffolds to maximize access to grade-level content. As time permits, educators explore critical steps for monitoring and managing *Personalized Instruction* and/or how to engage students through data chats. **Outcomes:** Analyze and use data to strategically plan next steps for whole class instruction. **Format:** The recommended length for this site-based course is three hours, but we work within the flexibility of up to six hours to meet district needs. Computer and web access are strongly recommended. This session may be delivered virtually or in person. **Audience:** • Teachers and instructional coaches • Leaders are also encouraged to attend
Tailored Support–Supporting Fidelity
Description: Tailored Support is planned collaboratively with the district to meet the local needs of implementation by addressing key areas of professional development at each stage of *i-Ready* use. For New Users, we identify data trends and extend momentum to ensure a successful first year.

Table 7: *i-Ready* Courses for New Users
Topics Include: • Data-Driven Differentiated Instruction • *Personalized Instruction* • Understanding *i-Ready* Growth Model and Measuring Growth • Supporting Coaches and Champions in Their First Year • Implementation Support for Leaders
Using the *i-Ready Literacy Tasks*
Description: Educators will learn about *i-Ready Literacy Tasks* and the key foundational literacy skills that they cover. They will be introduced to the options for using the forms and learn how to administer and score these tasks. They will also understand the process of entering student data into *i-Ready Connect* (the *i-Ready* online system) and how to view the *Literacy Tasks* (Student) report. Finally, they will learn how to analyze results and determine next steps for instruction and subsequent assessment.
Data-Driven Leadership Best Practices I
Description: Prepare to successfully lead an *i-Ready* implementation. Data-Driven Leadership Best Practices I helps leaders establish effective implementation strategies and foundations that unlock *i-Ready*'s potential to drive student growth. Leaders who are new to *i-Ready* engage in hands-on exploration of the most important reports and features for administrators. This prepares leaders to use *i-Ready* for data-driven decision-making and instructional planning. As time permits, educators discuss the Top Leader Actions for successful assessment, instruction, and student engagement and develop communication plans that support a strong *i-Ready* rollout. **Outcomes:** • Use the i-Ready administrator application and key reports in data-driven decision-making and instructional planning • Use tested strategies to launch a successful school-level i-Ready implementation • Develop and execute a school-level communication plan to share the purpose and priorities for the first year of i-Ready use **Format:** The recommended length of this centrally delivered course is three hours, but we work within the flexibility of up to six hours to meet district needs. Computer and web access are strongly recommended. This session may be delivered virtually or in person. **Audience:** • Principals and other site-level implementation leaders, such as instructional coaches • District leaders responsible for the implementation

The professional development sessions for teachers are delivered on separate days with a maximum of 30 participants at each session. The recommended time for each course is three hours, but we can adjust session duration as needed to meet the District's needs.

The professional development session for leaders lasts up to three hours and is centrally delivered. This session may be purchased à la carte or is included with the purchase of our recommended professional development package for three or more implementing schools.

Our pricing includes session development and any handouts, plus our specialist's time, travel, and lodging. HCPS will provide and host the training location/facility, coordinate all participant time, and provide required equipment (e.g., computers with internet access).

Professional Development in Year Two and Beyond

In subsequent years of implementation, the needs of teachers and leaders become more complex as they move from basic product knowledge to focus more on impactful changes in teaching practices. To meet those needs, we also offer a **Practicing Users** and **Advanced Users** professional development curriculum for succeeding years of implementation. While these curriculums are designed to be consecutive, the exact sequence of sessions is often dependent upon each school's specific needs. Some schools may be at the Practicing level for multiple years as they grow in their professional practice, while other schools may be ready for our Advanced curriculum sooner. In years two and beyond, we will work with HCPS to determine the best path to meet the needs of educators and students.

Each 60-minute session targets multiple content grade bands within the Number Sense and Operations domains. Individual sessions can be combined or delivered across multiple visits to expand mathematical content knowledge. Collaborate with district and school leaders to craft a targeted learning program to meet educator learning goals. Below is a visual of the module topics offered across grade bands addressing Number Sense and/or Operations content.

Tailored Support Sessions

In order to meet each district's unique needs, we have content for more than 50 teacher-focused and more than 30 leader-focused Tailored Support sessions.

Mathematics Content Knowledge Series

The Mathematics Content Knowledge Series consists of 17 in-person professional development modules designed to deepen educators' understanding of core mathematical concepts and help them connect foundational ideas across grade levels to help advance student learning.

Using research-based strategies, models, and mathematical progressions, educators dig into the meaning and power of mathematical ideas as they craft and critique explanations, push their thinking, and explore alternative perspectives. Educators will be able to:

- Demonstrate deep and flexible understanding of core mathematical concepts
- Use mathematical language and models with precision and accuracy
- Explain how core concepts connect within and across grade levels
- Get more out of their core math implementations
- Provide enriched learning opportunities for students

Each 60-minute session targets multiple content grade bands within the Number Sense and Operations domains. Individual sessions can be combined or delivered across multiple visits to expand mathematical content knowledge. Collaborate with *i-Ready Partners* team to craft a targeted learning program to meet District needs.

Who Is This Series For?

This series is for teachers who want to grow their confidence in particular mathematical concepts to:

- Introduce or deepen use of math discourse in their classrooms
- Bridge learning needs students may have between prerequisite knowledge and grade-level instruction
- Make stronger use of Curriculum Associates' mathematics programs to impact student learning

d. Sandbox environment

d. describe a sandbox environment for HCPS for testing new ideas and questions that doesn't affect reporting and current functionality.

We included access instructions for our *i-Ready* demonstration site in Appendix J; we encourage reviewers to use them to experience *i-Ready* and its many features firsthand. The credentials will give reviewers access for different user types: administrator, teacher, and student. While our demonstration accounts are live accounts, they contain fictional data to protect student security. The data in the demonstration account is sample data and is intended to help reviewers explore *i-Ready* and understand its functionality.

During the first professional development session, teachers also use our demonstration account. The data in the demonstration account is sample data and is intended to help reviewers explore *i-Ready* and understand its functionality. The data represents a broad set of grade levels, classes, and instructional paths, as well as a broad range of levels of student proficiency. For subsequent professional development sessions, we encourage teachers to use their own student data. This ensures that their time is spent in direct support of meeting the learning needs of their assigned students, while they are learning how to use *i-Ready* to monitor student learning growth and differentiate instruction.

We typically conduct a nightly refresh of expired logins for that demonstration site but if HCPS staff members wish to continue using the demonstration site as a sandbox, your designated Partner Success Manager can certainly arrange to allow continued access. Since the data was generated for demonstration purposes, and is not the data of real students, reviewers may occasionally see scenarios that seem unlikely or incomplete. Our demonstration data is designed to change periodically to mirror the experience an educator would have during a school year. Therefore, reviewers may see data change in the *Diagnostic* Status report during the fall, winter, and spring when students would be completing *i-Ready Diagnostic*.

We recognize the value of *i-Ready* educators creating and sharing ideas. For this reason, we have also created the Ideas from Educators "online sandbox" available via *i-Ready* Central (https://*i-Ready*central.com/ideas/). This sandbox is available to all *i-Ready* educators and is a place where HCPS staff members can share and view tips, tools, and ideas with the wider *i-Ready* professional learning community.

Tab 6 – Pricing / Cost Proposal

Please see Attachments I and J, Pricing Scenario. In Attachment J, please provide the pricing as it relates to the proposed solution. In Attachment I, please provide pricing for the scenario based on the pricing being offered in Attachment J.

Attachments I and J

Curriculum Associates®

Prepared For:

Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223

2/22/2023

Dear Amy Anthes,

Thank you for requesting a price quote from Curriculum Associates. The chart below provides a summary of the products and/or services included. If you have any questions or would like any changes, please contact us.

Quote ID: 315405.3 Valid through: 12/31/2023

Product	List Price	Net Price
i-Ready	$479,065.50	$383,252.40
Professional Development	$280,600.00	$183,000.00
	List Total:	$759,665.50
	Savings:	$193,413.10
	Shipping/Tax/Other:	$0.00
	Total:	**$566,252.40**

Thank you again for your interest in Curriculum Associates.

Sincerely

Steven McBride
304-563-6001
smcbride@cainc.com

Please submit this quote with your purchase order

Curriculum Associates

Quote ID: 315405.3 **Date:** 2/22/2023 **Valid through:** 12/31/2023

Prepared For:
Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223
ant041@henrico.us
(804) 652-3600

Your Representative:
Steven McBride
304-563-6001
smcbride@cainc.com

Academy at Virginia Randolph 2204 Mountain Rd, Glen Allen, VA 23060

Total Building Enrollment: 100, Grade Range: 7 - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	49	$7.25	$5.80	$284.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	51	$7.25	$5.80	$295.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	51	$7.25	$5.80	$295.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	49	$7.25	$5.80	$284.20
					Subtotal:	$4,160.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$4,160.00

Anthony Mehfoud ES 8320 Buffin Rd, Henrico, VA 23231

Total Building Enrollment: 288, Grade Range: PK - 2

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	98	$7.25	$5.80	$568.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	98	$7.25	$5.80	$568.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
					Subtotal:	$6,340.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$6,340.80

Arthur Ashe Jr ES 1001 Cedar Fork Rd, Richmond, VA 23223

Total Building Enrollment: 480, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	81	$7.25	$5.80	$469.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	81	$7.25	$5.80	$469.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	79	$7.25	$5.80	$458.20
					Subtotal:	$8,602.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,602.80

Brookland MS 9200 Lydell Dr, Henrico, VA 23228

Total Building Enrollment: 1129, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	362	$7.25	$5.80	$2,099.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	371	$7.25	$5.80	$2,151.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	382	$7.25	$5.80	$2,215.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	382	$7.25	$5.80	$2,215.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	371	$7.25	$5.80	$2,151.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	362	$7.25	$5.80	$2,099.60
					Subtotal:	$15,934.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,934.00

Chamberlayne ES 8200 St Charles Rd, Richmond, VA 23227

Total Building Enrollment: 300, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	50	$7.25	$5.80	$290.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	50	$7.25	$5.80	$290.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	51	$7.25	$5.80	$295.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	51	$7.25	$5.80	$295.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	49	$7.25	$5.80	$284.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	50	$7.25	$5.80	$290.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	50	$7.25	$5.80	$290.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	49	$7.25	$5.80	$284.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	51	$7.25	$5.80	$295.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	51	$7.25	$5.80	$295.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	50	$7.25	$5.80	$290.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	50	$7.25	$5.80	$290.00
					Subtotal:	$6,491.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$6,491.60

Charles M Johnson ES 5600 Bethlehem Rd, Richmond, VA 23230

Total Building Enrollment: 417, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	70	$7.25	$5.80	$406.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	71	$7.25	$5.80	$411.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	70	$7.25	$5.80	$406.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	71	$7.25	$5.80	$411.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	69	$7.25	$5.80	$400.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	69	$7.25	$5.80	$400.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	69	$7.25	$5.80	$400.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	69	$7.25	$5.80	$400.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	71	$7.25	$5.80	$411.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	70	$7.25	$5.80	$406.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	71	$7.25	$5.80	$411.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	70	$7.25	$5.80	$406.00
					Subtotal:	$7,872.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$7,872.00

Colonial Trail ES 12101 Bacova Dr, Glen Allen, VA 23059

Total Building Enrollment: 648, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	107	$7.25	$5.80	$620.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	111	$7.25	$5.80	$643.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	106	$7.25	$5.80	$614.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	110	$7.25	$5.80	$638.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	108	$7.25	$5.80	$626.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	109	$7.25	$5.80	$632.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	109	$7.25	$5.80	$632.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	108	$7.25	$5.80	$626.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	110	$7.25	$5.80	$638.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	106	$7.25	$5.80	$614.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	111	$7.25	$5.80	$643.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	107	$7.25	$5.80	$620.60
					Subtotal:	$10,551.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$10,551.60

Crestview ES 1901 Charles St, Richmond, VA 23226

Total Building Enrollment: 312, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	52	$7.25	$5.80	$301.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	53	$7.25	$5.80	$307.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	52	$7.25	$5.80	$301.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	53	$7.25	$5.80	$307.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	51	$7.25	$5.80	$295.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	52	$7.25	$5.80	$301.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	51	$7.25	$5.80	$295.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	53	$7.25	$5.80	$307.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	52	$7.25	$5.80	$301.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	52	$7.25	$5.80	$301.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	53	$7.25	$5.80	$307.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	52	$7.25	$5.80	$301.60
					Subtotal:	$6,630.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$6,630.80

David Kaechele ES 5680 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	90	$7.25	$5.80	$522.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	90	$7.25	$5.80	$522.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	83	$7.25	$5.80	$481.40
					Subtotal:	$8,649.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,649.20

Donahoe ES 1801 Graves Rd, Sandston, VA 23150

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
					Subtotal:	$9,020.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,020.40

Dumbarton ES 9000 Hungary Spring Rd, Henrico, VA 23228

Total Building Enrollment: 570, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
					Subtotal:	$9,646.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,646.80

Echo Lake ES 5200 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 504, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	83	$7.25	$5.80	$481.40
					Subtotal:	$8,881.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,881.20

Elizabeth Holladay ES 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 732, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	123	$7.25	$5.80	$713.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	125	$7.25	$5.80	$725.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	123	$7.25	$5.80	$713.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	125	$7.25	$5.80	$725.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	120	$7.25	$5.80	$696.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	121	$7.25	$5.80	$701.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	121	$7.25	$5.80	$701.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	120	$7.25	$5.80	$696.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	125	$7.25	$5.80	$725.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	123	$7.25	$5.80	$713.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	125	$7.25	$5.80	$725.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	123	$7.25	$5.80	$713.40
					Subtotal:	$11,549.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,549.20

Elko MS 5901 Elko Rd, Sandston, VA 23150

Total Building Enrollment: 729, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	234	$7.25	$5.80	$1,357.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	240	$7.25	$5.80	$1,392.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	247	$7.25	$5.80	$1,432.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	247	$7.25	$5.80	$1,432.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	240	$7.25	$5.80	$1,392.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	234	$7.25	$5.80	$1,357.20
					Subtotal:	$11,363.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,363.60

Fair Oaks ES 201 Jennings Rd, Highland Spgs, VA 23075

Total Building Enrollment: 372, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	62	$7.25	$5.80	$359.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	63	$7.25	$5.80	$365.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	62	$7.25	$5.80	$359.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	62	$7.25	$5.80	$359.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	61	$7.25	$5.80	$353.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	61	$7.25	$5.80	$353.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	62	$7.25	$5.80	$359.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	62	$7.25	$5.80	$359.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	63	$7.25	$5.80	$365.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	62	$7.25	$5.80	$359.60
					Subtotal:	$7,338.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$7,338.40

Fairfield MS 5121 Nine Mile Rd, Richmond, VA 23223

Total Building Enrollment: 1071, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	344	$7.25	$5.80	$1,995.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	352	$7.25	$5.80	$2,041.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	363	$7.25	$5.80	$2,105.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	363	$7.25	$5.80	$2,105.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	352	$7.25	$5.80	$2,041.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	344	$7.25	$5.80	$1,995.20
					Subtotal:	$15,284.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,284.40

Gayton ES 12481 Church Rd, Henrico, VA 23233

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
					Subtotal:	$9,020.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,020.40

George F Baker ES 6651 Willson Rd, Henrico, VA 23231

Total Building Enrollment: 384, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	65	$7.25	$5.80	$377.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	63	$7.25	$5.80	$365.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	63	$7.25	$5.80	$365.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	65	$7.25	$5.80	$377.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	64	$7.25	$5.80	$371.20
					Subtotal:	$7,477.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$7,477.60

George H Moody MS 7800 Woodman Rd, Henrico, VA 23228

Total Building Enrollment: 1097, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	352	$7.25	$5.80	$2,041.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	361	$7.25	$5.80	$2,093.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	371	$7.25	$5.80	$2,151.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	371	$7.25	$5.80	$2,151.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	361	$7.25	$5.80	$2,093.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	352	$7.25	$5.80	$2,041.60
					Subtotal:	$15,574.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,574.40

Glen Allen ES 11101 Mill Rd, Glen Allen, VA 23060

Total Building Enrollment: 586, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	98	$7.25	$5.80	$568.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	98	$7.25	$5.80	$568.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	100	$7.25	$5.80	$580.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	100	$7.25	$5.80	$580.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	100	$7.25	$5.80	$580.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	100	$7.25	$5.80	$580.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	98	$7.25	$5.80	$568.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	98	$7.25	$5.80	$568.40
					Subtotal:	$9,832.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,832.40

Glen Lea ES 3909 Austin Ave, Richmond, VA 23222

Total Building Enrollment: 450, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	74	$7.25	$5.80	$429.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	74	$7.25	$5.80	$429.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	74	$7.25	$5.80	$429.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	74	$7.25	$5.80	$429.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	76	$7.25	$5.80	$440.80
					Subtotal:	$8,254.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,254.80

Grad and Performance Lrng Ctr 2915 Williamsburg Rd, Henrico, VA 23231

Total Building Enrollment: 12, Grade Range: 6 - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	4	$7.25	$5.80	$23.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	4	$7.25	$5.80	$23.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	4	$7.25	$5.80	$23.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	4	$7.25	$5.80	$23.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	4	$7.25	$5.80	$23.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	4	$7.25	$5.80	$23.20
					Subtotal:	$3,139.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$3,139.20

Greenwood ES 10960 Greenwood Rd, Glen Allen, VA 23059

Total Building Enrollment: 558, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	92	$7.25	$5.80	$533.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	92	$7.25	$5.80	$533.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	92	$7.25	$5.80	$533.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	92	$7.25	$5.80	$533.60
					Subtotal:	$9,507.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,507.60

Harvie ES 3401 Harvie Rd, Richmond, VA 23223

Total Building Enrollment: 486, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	81	$7.25	$5.80	$469.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	81	$7.25	$5.80	$469.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
					Subtotal:	$8,672.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,672.40

Henrico Virtual Academy 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 198, Grade Range: PK - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	21	$7.25	$5.80	$121.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	23	$7.25	$5.80	$133.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	23	$7.25	$5.80	$133.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	22	$7.25	$5.80	$127.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	21	$7.25	$5.80	$121.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	22	$7.25	$5.80	$127.60
					Subtotal:	$5,296.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$5,296.80

Henry Ward ES 3400 Darbytown Rd, Henrico, VA 23231

Total Building Enrollment: 474, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	81	$7.25	$5.80	$469.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	81	$7.25	$5.80	$469.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	81	$7.25	$5.80	$469.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	81	$7.25	$5.80	$469.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	78	$7.25	$5.80	$452.40
					Subtotal:	$8,533.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,533.20

Highland Springs ES 600 Pleasant St, Highland Spgs, VA 23075

Total Building Enrollment: 510, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	84	$7.25	$5.80	$487.20
					Subtotal:	$8,950.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,950.80

Holman MS 600 Concourse Blvd, Glen Allen, VA 23059

Total Building Enrollment: 857, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	276	$7.25	$5.80	$1,600.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	283	$7.25	$5.80	$1,641.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	290	$7.25	$5.80	$1,682.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	290	$7.25	$5.80	$1,682.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	283	$7.25	$5.80	$1,641.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	276	$7.25	$5.80	$1,600.80
					Subtotal:	$12,848.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$12,848.40

Hungary Creek MS 4909 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 870, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	279	$7.25	$5.80	$1,618.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	286	$7.25	$5.80	$1,658.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	294	$7.25	$5.80	$1,705.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	294	$7.25	$5.80	$1,705.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	286	$7.25	$5.80	$1,658.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	279	$7.25	$5.80	$1,618.20
					Subtotal:	$12,964.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$12,964.40

Jackson Davis ES 8801 Nesslewood Dr, Henrico, VA 23229

Total Building Enrollment: 498, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
					Subtotal:	$8,811.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,811.60

Jacob L Adams ES 600 S Laburnum Ave, Richmond, VA 23223

Total Building Enrollment: 444, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	74	$7.25	$5.80	$429.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	73	$7.25	$5.80	$423.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	73	$7.25	$5.80	$423.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	73	$7.25	$5.80	$423.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	73	$7.25	$5.80	$423.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	74	$7.25	$5.80	$429.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	76	$7.25	$5.80	$440.80
					Subtotal:	$8,185.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,185.20

John Rolfe MS 6901 Messer Rd, Henrico, VA 23231

Total Building Enrollment: 885, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	284	$7.25	$5.80	$1,647.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	291	$7.25	$5.80	$1,687.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	300	$7.25	$5.80	$1,740.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	300	$7.25	$5.80	$1,740.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	291	$7.25	$5.80	$1,687.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	284	$7.25	$5.80	$1,647.20
					Subtotal:	$13,150.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,150.00

L Douglas Wilder MS 6900 Wilkinson Rd, Richmond, VA 23227

Total Building Enrollment: 742, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	238	$7.25	$5.80	$1,380.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	244	$7.25	$5.80	$1,415.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	251	$7.25	$5.80	$1,455.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	251	$7.25	$5.80	$1,455.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	244	$7.25	$5.80	$1,415.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	238	$7.25	$5.80	$1,380.40
					Subtotal:	$11,502.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,502.80

Laburnum ES 500 Meriwether Ave, Richmond, VA 23222

Total Building Enrollment: 438, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	74	$7.25	$5.80	$429.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	73	$7.25	$5.80	$423.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	72	$7.25	$5.80	$417.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	72	$7.25	$5.80	$417.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	72	$7.25	$5.80	$417.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	72	$7.25	$5.80	$417.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	73	$7.25	$5.80	$423.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	74	$7.25	$5.80	$429.20
					Subtotal:	$8,115.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,115.60

Lakeside ES 6700 Cedar Croft St, Henrico, VA 23228

Total Building Enrollment: 384, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	65	$7.25	$5.80	$377.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	63	$7.25	$5.80	$365.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	63	$7.25	$5.80	$365.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	65	$7.25	$5.80	$377.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	64	$7.25	$5.80	$371.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	64	$7.25	$5.80	$371.20
					Subtotal:	$7,477.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$7,477.60

Longdale ES 9500 Norfolk St, Glen Allen, VA 23060

Total Building Enrollment: 456, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	75	$7.25	$5.80	$435.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	78	$7.25	$5.80	$452.40
					Subtotal:	$8,324.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,324.40

Maude Trevvett ES 2300 Trevvett Dr, Henrico, VA 23228

Total Building Enrollment: 498, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	84	$7.25	$5.80	$487.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	82	$7.25	$5.80	$475.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	83	$7.25	$5.80	$481.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	84	$7.25	$5.80	$487.20
					Subtotal:	$8,811.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,811.60

Maybeury ES 901 Maybeury Dr, Henrico, VA 23229

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	93	$7.25	$5.80	$539.40
					Subtotal:	$9,577.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,577.20

Montrose ES 2820 Williamsburg Rd, Henrico, VA 23231

Total Building Enrollment: 336, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	56	$7.25	$5.80	$324.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	56	$7.25	$5.80	$324.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	57	$7.25	$5.80	$330.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	56	$7.25	$5.80	$324.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	55	$7.25	$5.80	$319.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	57	$7.25	$5.80	$330.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	57	$7.25	$5.80	$330.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	55	$7.25	$5.80	$319.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	56	$7.25	$5.80	$324.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	57	$7.25	$5.80	$330.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	56	$7.25	$5.80	$324.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	56	$7.25	$5.80	$324.80
					Subtotal:	$6,909.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$6,909.20

Nuckols Farm ES 12351 Graham Meadows Dr, Henrico, VA 23233

Total Building Enrollment: 569, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	94	$7.25	$5.80	$545.20
					Subtotal:	$9,635.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,635.20

Pemberton ES 1400 Pemberton Rd, Henrico, VA 23238

Total Building Enrollment: 330, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	55	$7.25	$5.80	$319.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	55	$7.25	$5.80	$319.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	56	$7.25	$5.80	$324.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	55	$7.25	$5.80	$319.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	54	$7.25	$5.80	$313.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	56	$7.25	$5.80	$324.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	56	$7.25	$5.80	$324.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	54	$7.25	$5.80	$313.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	55	$7.25	$5.80	$319.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	56	$7.25	$5.80	$324.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	55	$7.25	$5.80	$319.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	55	$7.25	$5.80	$319.00
					Subtotal:	$6,839.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$6,839.60

Pinchbeck ES 1275 Gaskins Rd, Henrico, VA 23238

Total Building Enrollment: 462, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	76	$7.25	$5.80	$440.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	77	$7.25	$5.80	$446.60
					Subtotal:	$8,394.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,394.00

Pocahontas MS 12000 Three Chopt Rd, Henrico, VA 23233

Total Building Enrollment: 822, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	264	$7.25	$5.80	$1,531.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	270	$7.25	$5.80	$1,566.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	278	$7.25	$5.80	$1,612.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	278	$7.25	$5.80	$1,612.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	270	$7.25	$5.80	$1,566.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	264	$7.25	$5.80	$1,531.20
					Subtotal:	$12,419.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$12,419.20

Quioccasin MS 9400 Quioccasin Rd, Henrico, VA 23238

Total Building Enrollment: 1050, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	337	$7.25	$5.80	$1,954.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	345	$7.25	$5.80	$2,001.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	355	$7.25	$5.80	$2,059.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	355	$7.25	$5.80	$2,059.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	345	$7.25	$5.80	$2,001.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	337	$7.25	$5.80	$1,954.60
					Subtotal:	$15,029.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,029.20

R C Longan ES 9200 Mapleview Ave, Henrico, VA 23294

Total Building Enrollment: 396, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	67	$7.25	$5.80	$388.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	65	$7.25	$5.80	$377.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	68	$7.25	$5.80	$394.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	68	$7.25	$5.80	$394.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	65	$7.25	$5.80	$377.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	67	$7.25	$5.80	$388.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	66	$7.25	$5.80	$382.80
					Subtotal:	$7,616.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$7,616.80

Ratcliffe ES 2901 Thalen St, Richmond, VA 23223

Total Building Enrollment: 402, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	67	$7.25	$5.80	$388.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	67	$7.25	$5.80	$388.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	69	$7.25	$5.80	$400.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	67	$7.25	$5.80	$388.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	69	$7.25	$5.80	$400.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	69	$7.25	$5.80	$400.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	66	$7.25	$5.80	$382.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	67	$7.25	$5.80	$388.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	69	$7.25	$5.80	$400.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	67	$7.25	$5.80	$388.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	67	$7.25	$5.80	$388.60
					Subtotal:	$7,698.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$7,698.00

Ridge ES 8910 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 426, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	73	$7.25	$5.80	$423.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	71	$7.25	$5.80	$411.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	72	$7.25	$5.80	$417.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	70	$7.25	$5.80	$406.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	73	$7.25	$5.80	$423.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	70	$7.25	$5.80	$406.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	70	$7.25	$5.80	$406.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	73	$7.25	$5.80	$423.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	70	$7.25	$5.80	$406.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	72	$7.25	$5.80	$417.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	71	$7.25	$5.80	$411.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	73	$7.25	$5.80	$423.40
					Subtotal:	$7,976.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$7,976.40

Rivers Edge ES 11600 Holman Ridge Rd, Glen Allen, VA 23059

Total Building Enrollment: 770, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	127	$7.25	$5.80	$736.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	132	$7.25	$5.80	$765.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	127	$7.25	$5.80	$736.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	131	$7.25	$5.80	$759.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	129	$7.25	$5.80	$748.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	129	$7.25	$5.80	$748.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	129	$7.25	$5.80	$748.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	129	$7.25	$5.80	$748.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	131	$7.25	$5.80	$759.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	127	$7.25	$5.80	$736.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	132	$7.25	$5.80	$765.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	127	$7.25	$5.80	$736.60
					Subtotal:	$11,990.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,990.00

Ruby F Carver ES 1801 Lauderdale Dr, Henrico, VA 23238

Total Building Enrollment: 470, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	79	$7.25	$5.80	$458.20
					Subtotal:	$8,486.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,486.80

Sandston ES 7 Naglee Ave, Sandston, VA 23150

Total Building Enrollment: 174, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	30	$7.25	$5.80	$174.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	29	$7.25	$5.80	$168.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	29	$7.25	$5.80	$168.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	29	$7.25	$5.80	$168.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	30	$7.25	$5.80	$174.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	29	$7.25	$5.80	$168.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	29	$7.25	$5.80	$168.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	30	$7.25	$5.80	$174.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	29	$7.25	$5.80	$168.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	29	$7.25	$5.80	$168.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	29	$7.25	$5.80	$168.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	30	$7.25	$5.80	$174.00
					Subtotal:	$5,041.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$5,041.60

Seven Pines ES 301 Beulah Rd, Sandston, VA 23150

Total Building Enrollment: 348, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	58	$7.25	$5.80	$336.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	59	$7.25	$5.80	$342.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	58	$7.25	$5.80	$336.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	58	$7.25	$5.80	$336.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	59	$7.25	$5.80	$342.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	57	$7.25	$5.80	$330.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	57	$7.25	$5.80	$330.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	59	$7.25	$5.80	$342.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	58	$7.25	$5.80	$336.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	58	$7.25	$5.80	$336.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	58	$7.25	$5.80	$336.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	59	$7.25	$5.80	$342.20
					Subtotal:	$7,048.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$7,048.40

Shady Grove ES 12200 Wyndham Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 558, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	92	$7.25	$5.80	$533.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	92	$7.25	$5.80	$533.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	92	$7.25	$5.80	$533.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	92	$7.25	$5.80	$533.60
					Subtotal:	$9,507.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,507.60

Short Pump ES 3425 Pump Rd, Henrico, VA 23233

Total Building Enrollment: 556, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	92	$7.25	$5.80	$533.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	91	$7.25	$5.80	$527.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	91	$7.25	$5.80	$527.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	92	$7.25	$5.80	$533.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
					Subtotal:	$9,484.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,484.40

Short Pump MS 4701 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 1125, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	361	$7.25	$5.80	$2,093.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	370	$7.25	$5.80	$2,146.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	381	$7.25	$5.80	$2,209.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	381	$7.25	$5.80	$2,209.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	370	$7.25	$5.80	$2,146.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	361	$7.25	$5.80	$2,093.80
					Subtotal:	$15,899.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,899.20

Skipwith ES 2401 Skipwith Rd, Henrico, VA 23294

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	79	$7.25	$5.80	$458.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	77	$7.25	$5.80	$446.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	78	$7.25	$5.80	$452.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	79	$7.25	$5.80	$458.20
					Subtotal:	$8,463.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,463.60

Springfield Park ES 4301 Fort McHenry Pkwy, Glen Allen, VA 23060

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	93	$7.25	$5.80	$539.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	93	$7.25	$5.80	$539.40
					Subtotal:	$9,577.20
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,577.20

Three Chopt ES 1600 Skipwith Rd, Henrico, VA 23229

Total Building Enrollment: 270, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	45	$7.25	$5.80	$261.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	46	$7.25	$5.80	$266.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	44	$7.25	$5.80	$255.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	46	$7.25	$5.80	$266.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	45	$7.25	$5.80	$261.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	45	$7.25	$5.80	$261.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	45	$7.25	$5.80	$261.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	45	$7.25	$5.80	$261.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	46	$7.25	$5.80	$266.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	44	$7.25	$5.80	$255.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	46	$7.25	$5.80	$266.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	45	$7.25	$5.80	$261.00
					Subtotal:	$6,143.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$6,143.60

Tuckahoe ES 701 Forest Ave, Henrico, VA 23229

Total Building Enrollment: 570, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	96	$7.25	$5.80	$556.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	95	$7.25	$5.80	$551.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	94	$7.25	$5.80	$545.20
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	97	$7.25	$5.80	$562.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	94	$7.25	$5.80	$545.20
					Subtotal:	$9,646.80
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,646.80

Tuckahoe MS 9000 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 1071, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	344	$7.25	$5.80	$1,995.20
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	352	$7.25	$5.80	$2,041.60
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	363	$7.25	$5.80	$2,105.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	363	$7.25	$5.80	$2,105.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	352	$7.25	$5.80	$2,041.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	344	$7.25	$5.80	$1,995.20
					Subtotal:	$15,284.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,284.40

Twin Hickory ES 4900 Twin Hickory Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	87	$7.25	$5.80	$504.60
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	86	$7.25	$5.80	$498.80
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	88	$7.25	$5.80	$510.40
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	85	$7.25	$5.80	$493.00
					Subtotal:	$9,020.40
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$9,020.40

Varina ES 2551 New Market Rd, Henrico, VA 23231

Total Building Enrollment: 239, Grade Range: 3 - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment New User Package - Getting Good Data and Using Data to Plan Instruction	Multiple	19985.0	1	$4,000.00	$3,000.00	$3,000.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	81	$7.25	$5.80	$469.80
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Math Per Student License 1 Year	Multiple	13086.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	80	$7.25	$5.80	$464.00
i-Ready Assessment Reading Per Student License 1 Year	Multiple	13088.0	81	$7.25	$5.80	$469.80
					Subtotal:	$5,795.60
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$5,795.60

Henrico Co Public Schools 3820 Nine Mile Rd Ste A, Richmond, VA 23223

Total Building Enrollment: 33040, Grade Range: K - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Professional Development i-Ready Assessment Add on Leadership Session	Multiple	19990.0	6	$0.00	$0.00	$0.00
					Subtotal:	$0.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$0.00

Total

List Total:	$759,665.50
Savings:	$193,413.10
Merchandise Total:	$566,252.40
Voucher/Credit:	$0.00
Estimated Tax:	$0.00
Estimated Shipping:	$0.00
Total:	**$566,252.40**

Special Notes

20% discount applied to i-Ready based on scope of quote.
All i-Ready purchases require professional development.
For budgeting purposes only, final quote needed with updated quantities.

F.O.B.: N. Billerica, MA 01862
Shipping: Shipping based on MDSE total
Terms: Net 30 days, pending credit approval
Fed. ID: #26-3954988

Please submit this quote with your purchase order

Y62

Curriculum Associates®

Information on Professional Development Sessions and COVID-19

Protecting the health and safety of the educators we serve and their students, as well as the health and safety of our employees, is of paramount importance to Curriculum Associates. While it is our preference to deliver PD sessions in person, circumstances related to COVID-19 may require us to provide sessions virtually instead. Curriculum Associates' policy is to only provide PD sessions in person where one of our employees can reach the session site by car and where adequate safety measures are in place to protect the health of our session leaders and participants. Curriculum Associates reserves the right to switch any session from in-person to virtual if we cannot reach a session site by car, if adequate safety measures cannot be put in place, or if Curriculum Associates determines that it would otherwise put it employees at risk to provide an in-person session.

If your school or district will not permit visitors at the time of a scheduled session, Curriculum Associates would be happy to provide an equivalent live, virtual session via videoconference. Similarly, Curriculum Associates will comply with your school or district's health and safety requirements regarding on-site visitors if we are given adequate advance notice. Our PD Operations team will work with school or district personnel to hold sessions in a manner that protects the safety of educators and your school community as well as Curriculum Associates employees.

We are pleased to be able to serve you in these challenging times and look forward to providing productive learning sessions to your staff. Any questions regarding scheduling in-person or virtual training sessions should be directed to pdoperations@cainc.com.

Curriculum Associates®

Placing an Order

Email: Orders@cainc.com
Fax: 1-800-366-1158
Mail:
ATTN: CUSTOMER SERVICE DEPT.
Curriculum Associates LLC
153 Rangeway Rd
North Billerica, MA 01862-2013

Please visit CurriculumAssociates.com for more informationabout placing orders or contact CA's customer service department (1-800-225-0248) and reference quote numberfor questions.
Please attach quote to all signed purchase orders.
If tax exempt, please submit a valid exemption certificate with PO and quote in order to avoid processing delays. Exemption certificates can also be submitted to exempt@cainc.com.

Shipping Policy

Unless otherwise noted, shipping costs are calculated as follows:

Order Amount	Freight Amount
$74.99 or less	Max charge of $12.75
$75.00 to $999.99	12% of order
$1,000 to $4,999.99	10% of order

Order Amount	Freight Amount
$5,000.00 to $99,999.99	9% of order
$100,000 and more	7% of order

Please contact your local CA representative or customer service (1-800-225-0248) for expedited shipping rates. The weight limit for an expedited order is 500lbs.

The enhanced shipping and handling services listed below are available upon request subject to the availability of our carrier partners. Please notify us of these delivery requests prior to submitting your PO so that we can include the service on your quote appropriately:

- Interior Location Delivery $50/shipment location
- White Glove Delivery Service $350/shipment location

If our carrier partners are unable to deliver to the location instructed on the PO or you need to change the time or location of delivery, one or more of the following fees may be applicable:

- Delivery Address Change $100/shipment location
- Freight Storage $150/day/shipment location
- Freight Carrier Redelivery $100/shipment location

Unless otherwise expressly indicated, the shipping terms for all deliveries is FOB CA's Shipping Point (whether to a CA or third party facility). Risk of loss and title is passed to purchaser upon transfer of the goods to carrier, standard shipping charges (listedabove) are added to the invoice or included in the unit price unless otherwise specified.

Supply chain challenges outside of Curriculum Associates' control may impact inventory availability for print product. We recommend submission of purchase orders as soon as possible to help ensure timely delivery.

Payment Terms

Payment terms are as follows:

- With credit approval: Net 30 days
- Without credit approval: payment in full at time of order
- Accounts must be current before subsequentshipments are made

To ensure payment processing is timely and environmentally conscious, CA encourages ACH or wire payments. CA's bank remittance information is:

- Account Number: 4418064408 | ABA Routing: 121000248
- Bank Name: Wells Fargo Bank – San Francisco, CA | Account Name: Curriculum Associates, LLC
- SWIFT Code (International Only): WFBIUS6S
- Tax ID: 26-3954988

Please send any payment notifications to payments@cainc.com. Credit card payments are only accepted for purchases under $50,000.

Invoice Receipt Preference

CA is pleased to offer electronic invoice delivery. Electronic invoice delivery allows CA to deliver your invoice in a timely and environmentally friendly manner. To request electronic invoice delivery please contact the CA Accounts Receivable team at invoices@cainc.com or by fax (1-800-366-1158). Please reference your quote number, provide a valid email address where the invoice should be directed, and indicate you would like to opt into electronic invoice delivery.

Terms of Service

Customer's use of i-Ready® shall be subject to the i-Ready Terms and Conditions of Use, which can be found at i-ready.com/support. Customer's professional-development sessions will expire two years following the date of your purchase order and are subject to the Professional Development Terms of Service, which can be found at i-ready.com/support.

Return Policy

Except for materials sold on a non-refundable basis, purchaser may return, at purchaser risk and expense, purchased materials with pre-approval from CA's Customer Service department within 12 months of purchase. Please examine your order upon receipt. Before returning material, call CA's Customer Service department (1-800-225-0248 option 4) for return authorization and documentation. When returning material, please include your return authorization number and the return form that will be provided to you by CA's Return department. i-Ready®, Toolbox®, and BRIGANCE® Online Management Systems may be returned for a pro-rated refund for the remaining time left on the contract. We do not accept returns on unused i-Ready or Toolbox licenses®, materials that have been used and/or are not in "saleable condition," and individual components of kits or sets including but not limited to BRIGANCE® Kits, Ready® student and teacher sets, Ready Classroom® student and teacher sets, and Magnetic Reading classroom kits.

Curriculum Associates®

Prepared For:
Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223

Budgeting Quote - final quantities needed prior to purchase order

2/24/2023

Dear Amy Anthes,

Thank you for requesting a price quote from Curriculum Associates. The chart below provides a summary of the products and i-Ready Partner Services included. If you have any questions or would like any changes, please contact us.

Implementation Starting: 2023-2024 Quote ID: 315405.4 Valid through: 12/31/2023

Product	List Price	Net Price
i-Ready	$765,430.00	$610,895.00
Professional Development	$402,600.00	$274,500.00
i-Ready Partners Services	$91,500.00	$0.00

i-Ready Partners Services Includes:

- *Initial Implementation Services: Provisioning, Initial Rostering, Hosting, Technology Assessment*
- *Account Management: Account Manager You Know On A First Name Basis, Implementation Guidance, Realtime Achievement Data After Every Assessment, Ongoing Data Management*
- *Staff Development Consultation and Resources: Consultative services to help you plan and make the most of Professional Development sessions; Access to Online Educator Learning (OEL) Digital Courses, and i-Ready Central Self-Service Resources*
- *Technical Support: Proactive Network Monitoring & Issue Notification, Annual Health Check, Technical Support*

List Total:	$1,259,530.00
Savings:	$374,135.00
Shipping/Tax/Other:	$0.00
Total:	**$885,395.00**

Thank you again for your interest in Curriculum Associates.

Sincerely

Steven McBride
304-563-6001
smcbride@cainc.com

This quote is for budgeting/estimate purposes only - cannot be used to purchase

Curriculum Associates

Quote ID: 315405.4 **Date:** 2/24/2023 **Valid through:** 12/31/2023

Prepared For:
Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223
ant041@henrico.us
(804) 652-3600

Your Representative:
Steven McBride
304-563-6001
smcbride@cainc.com

Budgeting Quote - final quantities needed prior to purchase order

Academy at Virginia Randolph 2204 Mountain Rd, Glen Allen, VA 23060

Total Building Enrollment: 100, Grade Range: 7 - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 200 or fewer Students 1 Year	Multiple	14941.0	1	$4,860.00	$3,876.00	$3,876.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$8,376.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,376.00

Anthony Mehfoud ES 8320 Buffin Rd, Henrico, VA 23231

Total Building Enrollment: 288, Grade Range: PK - 2

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 201-350 Students 1 Year	Multiple	14942.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Arthur Ashe Jr ES 1001 Cedar Fork Rd, Richmond, VA 23223

Total Building Enrollment: 480, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Brookland MS 9200 Lydell Dr, Henrico, VA 23228

Total Building Enrollment: 1129, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Chamberlayne ES 8200 St Charles Rd, Richmond, VA 23227

Total Building Enrollment: 300, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 201-350 Students 1 Year	Multiple	14942.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Charles M Johnson ES 5600 Bethlehem Rd, Richmond, VA 23230

Total Building Enrollment: 417, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Colonial Trail ES 12101 Bacova Dr, Glen Allen, VA 23059

Total Building Enrollment: 648, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Crestview ES 1901 Charles St, Richmond, VA 23226

Total Building Enrollment: 312, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 201-350 Students 1 Year	Multiple	14942.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

David Kaechele ES 5680 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Donahoe ES 1801 Graves Rd, Sandston, VA 23150

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Dumbarton ES 9000 Hungary Spring Rd, Henrico, VA 23228

Total Building Enrollment: 570, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Echo Lake ES 5200 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 504, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Elizabeth Holladay ES 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 732, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Elko MS 5901 Elko Rd, Sandston, VA 23150

Total Building Enrollment: 729, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Fair Oaks ES 201 Jennings Rd, Highland Spgs, VA 23075

Total Building Enrollment: 372, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Fairfield MS 5121 Nine Mile Rd, Richmond, VA 23223

Total Building Enrollment: 1071, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Gayton ES 12481 Church Rd, Henrico, VA 23233

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

George F Baker ES 6651 Willson Rd, Henrico, VA 23231

Total Building Enrollment: 384, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

George H Moody MS 7800 Woodman Rd, Henrico, VA 23228

Total Building Enrollment: 1097, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Glen Allen ES 11101 Mill Rd, Glen Allen, VA 23060

Total Building Enrollment: 586, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Glen Lea ES 3909 Austin Ave, Richmond, VA 23222

Total Building Enrollment: 450, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Grad and Performance Lrng Ctr 2915 Williamsburg Rd, Henrico, VA 23231

Total Building Enrollment: 12, Grade Range: 6 - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 200 or fewer Students 1 Year	Multiple	14941.0	1	$4,860.00	$3,876.00	$3,876.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$8,376.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,376.00

Greenwood ES 10960 Greenwood Rd, Glen Allen, VA 23059

Total Building Enrollment: 558, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Harvie ES 3401 Harvie Rd, Richmond, VA 23223

Total Building Enrollment: 486, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Henrico Virtual Academy 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 198, Grade Range: PK - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 200 or fewer Students 1 Year	Multiple	14941.0	1	$4,860.00	$3,876.00	$3,876.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$8,376.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,376.00

Henry Ward ES 3400 Darbytown Rd, Henrico, VA 23231

Total Building Enrollment: 474, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Highland Springs ES 600 Pleasant St, Highland Spgs, VA 23075

Total Building Enrollment: 510, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Holman MS 600 Concourse Blvd, Glen Allen, VA 23059

Total Building Enrollment: 857, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Hungary Creek MS 4909 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 870, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Jackson Davis ES 8801 Nesslewood Dr, Henrico, VA 23229

Total Building Enrollment: 498, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Jacob L Adams ES 600 S Laburnum Ave, Richmond, VA 23223

Total Building Enrollment: 444, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

John Rolfe MS 6901 Messer Rd, Henrico, VA 23231

Total Building Enrollment: 885, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

L Douglas Wilder MS 6900 Wilkinson Rd, Richmond, VA 23227

Total Building Enrollment: 742, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Laburnum ES 500 Meriwether Ave, Richmond, VA 23222

Total Building Enrollment: 438, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Lakeside ES 6700 Cedar Croft St, Henrico, VA 23228

Total Building Enrollment: 384, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Longdale ES 9500 Norfolk St, Glen Allen, VA 23060

Total Building Enrollment: 456, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Maude Trevvett ES 2300 Trevvett Dr, Henrico, VA 23228

Total Building Enrollment: 498, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Maybeury ES 901 Maybeury Dr, Henrico, VA 23229

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Montrose ES 2820 Williamsburg Rd, Henrico, VA 23231

Total Building Enrollment: 336, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 201-350 Students 1 Year	Multiple	14942.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Nuckols Farm ES 12351 Graham Meadows Dr, Henrico, VA 23233

Total Building Enrollment: 569, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Pemberton ES 1400 Pemberton Rd, Henrico, VA 23238

Total Building Enrollment: 330, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 201-350 Students 1 Year	Multiple	14942.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Pinchbeck ES 1275 Gaskins Rd, Henrico, VA 23238

Total Building Enrollment: 462, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Pocahontas MS 12000 Three Chopt Rd, Henrico, VA 23233

Total Building Enrollment: 822, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Quioccasin MS 9400 Quioccasin Rd, Henrico, VA 23238

Total Building Enrollment: 1050, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

R C Longan ES 9200 Mapleview Ave, Henrico, VA 23294

Total Building Enrollment: 396, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Ratcliffe ES 2901 Thalen St, Richmond, VA 23223

Total Building Enrollment: 402, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Ridge ES 8910 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 426, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Rivers Edge ES 11600 Holman Ridge Rd, Glen Allen, VA 23059

Total Building Enrollment: 770, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Ruby F Carver ES 1801 Lauderdale Dr, Henrico, VA 23238

Total Building Enrollment: 470, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Sandston ES 7 Naglee Ave, Sandston, VA 23150

Total Building Enrollment: 174, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 200 or fewer Students 1 Year	Multiple	14941.0	1	$4,860.00	$3,876.00	$3,876.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$8,376.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,376.00

Seven Pines ES 301 Beulah Rd, Sandston, VA 23150

Total Building Enrollment: 348, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 201-350 Students 1 Year	Multiple	14942.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Shady Grove ES 12200 Wyndham Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 558, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Short Pump ES 3425 Pump Rd, Henrico, VA 23233

Total Building Enrollment: 556, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Short Pump MS 4701 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 1125, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Skipwith ES 2401 Skipwith Rd, Henrico, VA 23294

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 351-500 Students 1 Year	Multiple	14943.0	1	$11,820.00	$9,435.00	$9,435.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Springfield Park ES 4301 Fort McHenry Pkwy, Glen Allen, VA 23060

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Three Chopt ES 1600 Skipwith Rd, Henrico, VA 23229

Total Building Enrollment: 270, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 201-350 Students 1 Year	Multiple	14942.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Tuckahoe ES 701 Forest Ave, Henrico, VA 23229

Total Building Enrollment: 570, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Tuckahoe MS 9000 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 1071, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 801-1200 Students 1 Year	Multiple	14945.0	1	$17,890.00	$14,280.00	$14,280.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Twin Hickory ES 4900 Twin Hickory Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 501-800 Students 1 Year	Multiple	14944.0	1	$13,910.00	$11,101.00	$11,101.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Varina ES 2551 New Market Rd, Henrico, VA 23231

Total Building Enrollment: 239, Grade Range: 3 - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math Site License 201-350 Students 1 Year	Multiple	14942.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Henrico Co Public Schools 3820 Nine Mile Rd Ste A, Richmond, VA 23223

Total Building Enrollment: 33040, Grade Range: K - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Professional Development i-Ready Assessment and Personalized Instruction Add on Leadership Session	Multiple	19984.0	6	$0.00	$0.00	$0.00
					Subtotal:	$0.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$0.00

Total	
List Total:	$1,259,530.00
Savings:	$374,135.00
Merchandise Total:	$885,395.00
Voucher/Credit:	$0.00
Estimated Tax:	$0.00
Estimated Shipping:	$0.00
Total:	$885,395.00

Special Notes

15% discount applied to i-Ready based on scope of quote.
All i-Ready purchases require professional development.
For budgeting purposes only, final quote needed with updated quantities.

F.O.B.: N. Billerica, MA 01862
Shipping: Shipping based on MDSE total
Terms: Net 30 days, pending credit approval
Fed. ID: #26-3954988

This quote is for budgeting/estimate purposes only - cannot be used to purchase

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Curriculum Associates®

Information on Professional Development Sessions and COVID-19

Protecting the health and safety of the educators we serve and their students, as well as the health and safety of our employees, is of paramount importance to Curriculum Associates. While it is our preference to deliver PD sessions in person, circumstances related to COVID-19 may require us to provide sessions virtually instead. Curriculum Associates' policy is to only provide PD sessions in person where one of our employees can reach the session site by car and where adequate safety measures are in place to protect the health of our session leaders and participants. Curriculum Associates reserves the right to switch any session from in-person to virtual if we cannot reach a session site by car, if adequate safety measures cannot be put in place, or if Curriculum Associates determines that it would otherwise put it employees at risk to provide an in-person session.

If your school or district will not permit visitors at the time of a scheduled session, Curriculum Associates would be happy to provide an equivalent live, virtual session via videoconference. Similarly, Curriculum Associates will comply with your school or district's health and safety requirements regarding on-site visitors if we are given adequate advance notice. Our PD Operations team will work with school or district personnel to hold sessions in a manner that protects the safety of educators and your school community as well as Curriculum Associates employees.

We are pleased to be able to serve you in these challenging times and look forward to providing productive learning sessions to your staff. Any questions regarding scheduling in-person or virtual training sessions should be directed to pdoperations@cainc.com.

i-Ready Partners

Unparalleled Service and Educator Support

The *i-Ready Partners* team was born from our core value: the quality of our services is as important as the quality of our products. Know that when you implement our programs, your local *i-Ready Partners* will be there to support your team every step of the way.

Service Components

Our *i-Ready Partners* team is tasked with helping you implement our programs to meet ambitious district goals. *i-Ready Partners* support includes:

- **An Account Manager You Know on a First-Name Basis:** Dedicated account managers are your point of connection to a powerful network of *i-Ready* experts focused on making your implementation successful.
- **Consultative Professional Development Planning:** Tailored professional development plans ensure that PD is tied to your implementation goals and that educators are equipped to optimize the use of our programs from day one.
- **Real-Time Achievement Data after Every Assessment:** Detailed student achievement analytics to empower data-driven practices in classrooms.
- **Educational Consultants to Help You Know What's Coming Next:** Educational consultants to keep you up to speed on our latest research, development, and best practices.
- **Technical Support and Health Checks:** Proactive support that anticipates and heads off issues before they start—and is there for you should they arise.



Account Management | **Professional Development** | **Educational Consultants** | **Achievement Analytics** | **Technical Support**

Your *i-Ready Partners* Team

Dedicated to helping you implement *i-Ready* programs and achieve your district goals



Curriculum Associates

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Curriculum Associates®

Placing an Order

Email: Orders@cainc.com
Fax: 1-800-366-1158
Mail:
ATTN: CUSTOMER SERVICE DEPT.
Curriculum Associates LLC
153 Rangeway Rd
North Billerica, MA 01862-2013

Please visit CurriculumAssociates.com for more informationabout placing orders or contact CA's customer service department (1-800-225-0248) and reference quote numberfor questions.
Please attach quote to all signed purchase orders.
If tax exempt, please submit a valid exemption certificate with PO and quote in order to avoid processing delays. Exemption certificates can also be submitted to exempt@cainc.com.

Shipping Policy

Unless otherwise noted, shipping costs are calculated as follows:

Order Amount	Freight Amount
$74.99 or less	Max charge of $12.75
$75.00 to $999.99	12% of order
$1,000 to $4,999.99	10% of order

Order Amount	Freight Amount
$5,000.00 to $99,999.99	9% of order
$100,000 and more	7% of order

Please contact your local CA representative or customer service (1-800-225-0248) for expedited shipping rates. The weight limit for an expedited order is 500lbs.

The enhanced shipping and handling services listed below are available upon request subject to the availability of our carrier partners. Please notify us of these delivery requests prior to submitting your PO so that we can include the service on your quote appropriately:

- Interior Location Delivery $50/shipment location
- White Glove Delivery Service $350/shipment location

If our carrier partners are unable to deliver to the location instructed on the PO or you need to change the time or location of delivery, one or more of the following fees may be applicable:

- Delivery Address Change $100/shipment location
- Freight Storage $150/day/shipment location
- Freight Carrier Redelivery $100/shipment location

Unless otherwise expressly indicated, the shipping terms for all deliveries is FOB CA's Shipping Point (whether to a CA or third party facility). Risk of loss and title is passed to purchaser upon transfer of the goods to carrier, standard shipping charges (listedabove) are added to the invoice or included in the unit price unless otherwise specified.

Supply chain challenges outside of Curriculum Associates' control may impact inventory availability for print product. We recommend submission of purchase orders as soon as possible to help ensure timely delivery.

Payment Terms

Payment terms are as follows:

- With credit approval: Net 30 days
- Without credit approval: payment in full at time of order
- Accounts must be current before subsequentshipments are made

To ensure payment processing is timely and environmentally conscious, CA encourages ACH or wire payments. CA's bank remittance information is:

- Account Number: 4418064408 | ABA Routing: 121000248
- Bank Name: Wells Fargo Bank – San Francisco, CA | Account Name: Curriculum Associates, LLC
- SWIFT Code (International Only): WFBIUS6S
- Tax ID: 26-3954988

Please send any payment notifications to payments@cainc.com. Credit card payments are only accepted for purchases under $50,000.

Invoice Receipt Preference

CA is pleased to offer electronic invoice delivery. Electronic invoice delivery allows CA to deliver your invoice in a timely and environmentally friendly manner. To request electronic invoice delivery please contact the CA Accounts Receivable team at invoices@cainc.com or by fax (1-800-366-1158). Please reference your quote number, provide a valid email address where the invoice should be directed, and indicate you would like to opt into electronic invoice delivery.

Terms of Service

Customer's use of i-Ready® shall be subject to the i-Ready Terms and Conditions of Use, which can be found at i-ready.com/support. Customer's professional-development sessions will expire two years following the date of your purchase order and are subject to the Professional Development Terms of Service, which can be found at i-ready.com/support.

Return Policy

Except for materials sold on a non-refundable basis, purchaser may return, at purchaser risk and expense, purchased materials with pre-approval from CA's Customer Service department within 12 months of purchase. Please examine your order upon receipt. Before returning material, call CA's Customer Service department (1-800-225-0248 option 4) for return authorization and documentation. When returning material, please include your return authorization number and the return form that will be provided to you by CA's Return department. i-Ready®, Toolbox®, and BRIGANCE® Online Management Systems may be returned for a pro-rated refund for the remaining time left on the contract. We do not accept returns on unused i-Ready or Toolbox licenses®, materials that have been used and/or are not in "saleable condition," and individual components of kits or sets including but not limited to BRIGANCE® Kits, Ready® student and teacher sets, Ready Classroom® student and teacher sets, and Magnetic Reading classroom kits.

Curriculum Associates®

Prepared For:
Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223

Budgeting Quote - final quantities needed prior to purchase order

2/20/2023

Dear Amy Anthes,

Thank you for requesting a price quote from Curriculum Associates. The chart below provides a summary of the products and i-Ready Partner Services included. If you have any questions or would like any changes, please contact us.

Quote ID: 315405.2 Valid through: 12/31/2023

Product	List Price	Net Price
i-Ready	$1,279,630.00	$1,021,368.50
Professional Development	$402,600.00	$274,500.00
i-Ready Partners Services	$91,500.00	$0.00

i-Ready Partners Services Includes:

- *Initial Implementation Services: Provisioning, Initial Rostering, Hosting, Technology Assessment*
- *Account Management: Account Manager You Know On A First Name Basis, Implementation Guidance, Realtime Achievement Data After Every Assessment, Ongoing Data Management*
- *Staff Development Consultation and Resources: Consultative services to help you plan and make the most of Professional Development sessions; Access to Online Educator Learning (OEL) Digital Courses, and i-Ready Central Self-Service Resources*
- *Technical Support: Proactive Network Monitoring & Issue Notification, Annual Health Check, Technical Support*

List Total:	$1,773,730.00
Savings:	$477,861.50
Shipping/Tax/Other:	$0.00
Total:	**$1,295,868.50**

Thank you again for your interest in Curriculum Associates.

Sincerely

Steven McBride
304-563-6001
smcbride@cainc.com

This quote is for budgeting/estimate purposes only - cannot be used to purchase

Curriculum Associates

Quote ID: 315405.2 **Date:** 2/20/2023 **Valid through:** 12/31/2023

Prepared For:
Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223
ant041@henrico.us
(804) 652-3600

Your Representative:
Steven McBride
304-563-6001
smcbride@cainc.com

Budgeting Quote - final quantities needed prior to purchase order

Academy at Virginia Randolph 2204 Mountain Rd, Glen Allen, VA 23060

Total Building Enrollment: 100, Grade Range: 7 - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 200 or fewer Students 1 Year	Multiple	15001.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Anthony Mehfoud ES 8320 Buffin Rd, Henrico, VA 23231

Total Building Enrollment: 288, Grade Range: PK - 2

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$13,900.00	$11,092.50	$11,092.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,592.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,592.50

Arthur Ashe Jr ES 1001 Cedar Fork Rd, Richmond, VA 23223

Total Building Enrollment: 480, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Brookland MS 9200 Lydell Dr, Henrico, VA 23228

Total Building Enrollment: 1129, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

Chamberlayne ES 8200 St Charles Rd, Richmond, VA 23227

Total Building Enrollment: 300, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$13,900.00	$11,092.50	$11,092.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,592.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,592.50

Charles M Johnson ES 5600 Bethlehem Rd, Richmond, VA 23230

Total Building Enrollment: 417, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Colonial Trail ES 12101 Bacova Dr, Glen Allen, VA 23059

Total Building Enrollment: 648, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Crestview ES 1901 Charles St, Richmond, VA 23226

Total Building Enrollment: 312, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$13,900.00	$11,092.50	$11,092.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,592.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,592.50

David Kaechele ES 5680 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Donahoe ES 1801 Graves Rd, Sandston, VA 23150

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Dumbarton ES 9000 Hungary Spring Rd, Henrico, VA 23228

Total Building Enrollment: 570, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Echo Lake ES 5200 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 504, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Elizabeth Holladay ES 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 732, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Elko MS 5901 Elko Rd, Sandston, VA 23150

Total Building Enrollment: 729, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Fair Oaks ES 201 Jennings Rd, Highland Spgs, VA 23075

Total Building Enrollment: 372, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Fairfield MS 5121 Nine Mile Rd, Richmond, VA 23223

Total Building Enrollment: 1071, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

Gayton ES 12481 Church Rd, Henrico, VA 23233

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

George F Baker ES 6651 Willson Rd, Henrico, VA 23231

Total Building Enrollment: 384, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

George H Moody MS 7800 Woodman Rd, Henrico, VA 23228

Total Building Enrollment: 1097, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

Glen Allen ES 11101 Mill Rd, Glen Allen, VA 23060

Total Building Enrollment: 586, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Glen Lea ES 3909 Austin Ave, Richmond, VA 23222

Total Building Enrollment: 450, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Grad and Performance Lrng Ctr 2915 Williamsburg Rd, Henrico, VA 23231

Total Building Enrollment: 12, Grade Range: 6 - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 200 or fewer Students 1 Year	Multiple	15001.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Greenwood ES 10960 Greenwood Rd, Glen Allen, VA 23059

Total Building Enrollment: 558, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Harvie ES 3401 Harvie Rd, Richmond, VA 23223

Total Building Enrollment: 486, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Henrico Virtual Academy 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 198, Grade Range: PK - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 200 or fewer Students 1 Year	Multiple	15001.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Henry Ward ES 3400 Darbytown Rd, Henrico, VA 23231

Total Building Enrollment: 474, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Highland Springs ES 600 Pleasant St, Highland Spgs, VA 23075

Total Building Enrollment: 510, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Holman MS 600 Concourse Blvd, Glen Allen, VA 23059

Total Building Enrollment: 857, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

Hungary Creek MS 4909 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 870, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

Jackson Davis ES 8801 Nesslewood Dr, Henrico, VA 23229

Total Building Enrollment: 498, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Jacob L Adams ES 600 S Laburnum Ave, Richmond, VA 23223

Total Building Enrollment: 444, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

John Rolfe MS 6901 Messer Rd, Henrico, VA 23231

Total Building Enrollment: 885, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

L Douglas Wilder MS 6900 Wilkinson Rd, Richmond, VA 23227

Total Building Enrollment: 742, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Laburnum ES 500 Meriwether Ave, Richmond, VA 23222

Total Building Enrollment: 438, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Lakeside ES 6700 Cedar Croft St, Henrico, VA 23228

Total Building Enrollment: 384, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Longdale ES 9500 Norfolk St, Glen Allen, VA 23060

Total Building Enrollment: 456, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Maude Trevvett ES 2300 Trevvett Dr, Henrico, VA 23228

Total Building Enrollment: 498, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Maybeury ES 901 Maybeury Dr, Henrico, VA 23229

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Montrose ES 2820 Williamsburg Rd, Henrico, VA 23231

Total Building Enrollment: 336, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$13,900.00	$11,092.50	$11,092.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,592.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,592.50

Nuckols Farm ES 12351 Graham Meadows Dr, Henrico, VA 23233

Total Building Enrollment: 569, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Pemberton ES 1400 Pemberton Rd, Henrico, VA 23238

Total Building Enrollment: 330, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$13,900.00	$11,092.50	$11,092.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,592.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,592.50

Pinchbeck ES 1275 Gaskins Rd, Henrico, VA 23238

Total Building Enrollment: 462, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Pocahontas MS 12000 Three Chopt Rd, Henrico, VA 23233

Total Building Enrollment: 822, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

Quioccasin MS 9400 Quioccasin Rd, Henrico, VA 23238

Total Building Enrollment: 1050, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

R C Longan ES 9200 Mapleview Ave, Henrico, VA 23294

Total Building Enrollment: 396, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Ratcliffe ES 2901 Thalen St, Richmond, VA 23223

Total Building Enrollment: 402, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Ridge ES 8910 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 426, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Rivers Edge ES 11600 Holman Ridge Rd, Glen Allen, VA 23059

Total Building Enrollment: 770, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Ruby F Carver ES 1801 Lauderdale Dr, Henrico, VA 23238

Total Building Enrollment: 470, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Sandston ES 7 Naglee Ave, Sandston, VA 23150

Total Building Enrollment: 174, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 200 or fewer Students 1 Year	Multiple	15001.0	1	$8,300.00	$6,621.50	$6,621.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Seven Pines ES 301 Beulah Rd, Sandston, VA 23150

Total Building Enrollment: 348, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$13,900.00	$11,092.50	$11,092.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,592.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,592.50

Shady Grove ES 12200 Wyndham Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 558, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Short Pump ES 3425 Pump Rd, Henrico, VA 23233

Total Building Enrollment: 556, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Short Pump MS 4701 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 1125, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

Skipwith ES 2401 Skipwith Rd, Henrico, VA 23294

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 351-500 Students 1 Year	Multiple	15003.0	1	$19,750.00	$15,767.50	$15,767.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$20,267.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$20,267.50

Springfield Park ES 4301 Fort McHenry Pkwy, Glen Allen, VA 23060

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Three Chopt ES 1600 Skipwith Rd, Henrico, VA 23229

Total Building Enrollment: 270, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$13,900.00	$11,092.50	$11,092.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,592.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,592.50

Tuckahoe ES 701 Forest Ave, Henrico, VA 23229

Total Building Enrollment: 570, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Tuckahoe MS 9000 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 1071, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 801-1200 Students 1 Year	Multiple	15005.0	1	$29,810.00	$23,791.50	$23,791.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$28,291.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$28,291.50

Twin Hickory ES 4900 Twin Hickory Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 501-800 Students 1 Year	Multiple	15004.0	1	$23,270.00	$18,572.50	$18,572.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$23,072.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$23,072.50

Varina ES 2551 New Market Rd, Henrico, VA 23231

Total Building Enrollment: 239, Grade Range: 3 - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Compliments Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Assessment and Personalized Instruction Math and Reading Site License 201-350 Students 1 Year	Multiple	15002.0	1	$13,900.00	$11,092.50	$11,092.50
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
					Subtotal:	$15,592.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,592.50

Henrico Co Public Schools 3820 Nine Mile Rd Ste A, Richmond, VA 23223

Total Building Enrollment: 33040, Grade Range: K - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Professional Development i-Ready Assessment and Personalized Instruction Add on Leadership Session	Multiple	19984.0	6	$0.00	$0.00	$0.00
					Subtotal:	$0.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$0.00

Total	
List Total:	$1,773,730.00
Savings:	$477,861.50
Merchandise Total:	$1,295,868.50
Voucher/Credit:	$0.00
Estimated Tax:	$0.00
Estimated Shipping:	$0.00
Total:	**$1,295,868.50**

Special Notes

15% discount applied to i-Ready based on scope of quote.
All i-Ready purchases require professional development.
For budgeting purposes only, final quote needed with updated quantities.

F.O.B.: N. Billerica, MA 01862
Shipping: Shipping based on MDSE total
Terms: Net 30 days, pending credit approval
Fed. ID: #26-3954988

This quote is for budgeting/estimate purposes only - cannot be used to purchase

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Curriculum Associates®

Information on Professional Development Sessions and COVID-19

Protecting the health and safety of the educators we serve and their students, as well as the health and safety of our employees, is of paramount importance to Curriculum Associates. While it is our preference to deliver PD sessions in person, circumstances related to COVID-19 may require us to provide sessions virtually instead. Curriculum Associates' policy is to only provide PD sessions in person where one of our employees can reach the session site by car and where adequate safety measures are in place to protect the health of our session leaders and participants. Curriculum Associates reserves the right to switch any session from in-person to virtual if we cannot reach a session site by car, if adequate safety measures cannot be put in place, or if Curriculum Associates determines that it would otherwise put it employees at risk to provide an in-person session.

If your school or district will not permit visitors at the time of a scheduled session, Curriculum Associates would be happy to provide an equivalent live, virtual session via videoconference. Similarly, Curriculum Associates will comply with your school or district's health and safety requirements regarding on-site visitors if we are given adequate advance notice. Our PD Operations team will work with school or district personnel to hold sessions in a manner that protects the safety of educators and your school community as well as Curriculum Associates employees.

We are pleased to be able to serve you in these challenging times and look forward to providing productive learning sessions to your staff. Any questions regarding scheduling in-person or virtual training sessions should be directed to pdoperations@cainc.com.

i-Ready Partners

Unparalleled Service and Educator Support

The *i-Ready Partners* team was born from our core value: the quality of our services is as important as the quality of our products. Know that when you implement our programs, your local *i-Ready Partners* will be there to support your team every step of the way.

Service Components

Our *i-Ready Partners* team is tasked with helping you implement our programs to meet ambitious district goals. *i-Ready Partners* support includes:

- **An Account Manager You Know on a First-Name Basis:** Dedicated account managers are your point of connection to a powerful network of *i-Ready* experts focused on making your implementation successful.
- **Consultative Professional Development Planning:** Tailored professional development plans ensure that PD is tied to your implementation goals and that educators are equipped to optimize the use of our programs from day one.
- **Real-Time Achievement Data after Every Assessment:** Detailed student achievement analytics to empower data-driven practices in classrooms.
- **Educational Consultants to Help You Know What's Coming Next:** Educational consultants to keep you up to speed on our latest research, development, and best practices.
- **Technical Support and Health Checks:** Proactive support that anticipates and heads off issues before they start—and is there for you should they arise.



Account Management | **Professional Development** | **Educational Consultants** | **Achievement Analytics** | **Technical Support**

Your *i-Ready Partners* Team

Dedicated to helping you implement *i-Ready* programs and achieve your district goals



Curriculum Associates

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Curriculum Associates®

Placing an Order

Email: Orders@cainc.com
Fax: 1-800-366-1158
Mail:
ATTN: CUSTOMER SERVICE DEPT.
Curriculum Associates LLC
153 Rangeway Rd
North Billerica, MA 01862-2013

Please visit CurriculumAssociates.com for more informationabout placing orders or contact CA's customer service department (1-800-225-0248) and reference quote numberfor questions.
Please attach quote to all signed purchase orders.
If tax exempt, please submit a valid exemption certificate with PO and quote in order to avoid processing delays. Exemption certificates can also be submitted to exempt@cainc.com.

Shipping Policy

Unless otherwise noted, shipping costs are calculated as follows:

Order Amount	Freight Amount
$74.99 or less	Max charge of $12.75
$75.00 to $999.99	12% of order
$1,000 to $4,999.99	10% of order

Order Amount	Freight Amount
$5,000.00 to $99,999.99	9% of order
$100,000 and more	7% of order

Please contact your local CA representative or customer service (1-800-225-0248) for expedited shipping rates. The weight limit for an expedited order is 500lbs.

The enhanced shipping and handling services listed below are available upon request subject to the availability of our carrier partners. Please notify us of these delivery requests prior to submitting your PO so that we can include the service on your quote appropriately:

- Interior Location Delivery $50/shipment location
- White Glove Delivery Service $350/shipment location

If our carrier partners are unable to deliver to the location instructed on the PO or you need to change the time or location of delivery, one or more of the following fees may be applicable:

- Delivery Address Change $100/shipment location
- Freight Storage $150/day/shipment location
- Freight Carrier Redelivery $100/shipment location

Unless otherwise expressly indicated, the shipping terms for all deliveries is FOB CA's Shipping Point (whether to a CA or third party facility). Risk of loss and title is passed to purchaser upon transfer of the goods to carrier, standard shipping charges (listedabove) are added to the invoice or included in the unit price unless otherwise specified.

Supply chain challenges outside of Curriculum Associates' control may impact inventory availability for print product. We recommend submission of purchase orders as soon as possible to help ensure timely delivery.

Payment Terms

Payment terms are as follows:

- With credit approval: Net 30 days
- Without credit approval: payment in full at time of order
- Accounts must be current before subsequentshipments are made

To ensure payment processing is timely and environmentally conscious, CA encourages ACH or wire payments. CA's bank remittance information is:

- Account Number: 4418064408 | ABA Routing: 121000248
- Bank Name: Wells Fargo Bank – San Francisco, CA | Account Name: Curriculum Associates, LLC
- SWIFT Code (International Only): WFBIUS6S
- Tax ID: 26-3954988

Please send any payment notifications to payments@cainc.com. Credit card payments are only accepted for purchases under $50,000.

Invoice Receipt Preference

CA is pleased to offer electronic invoice delivery. Electronic invoice delivery allows CA to deliver your invoice in a timely and environmentally friendly manner. To request electronic invoice delivery please contact the CA Accounts Receivable team at invoices@cainc.com or by fax (1-800-366-1158). Please reference your quote number, provide a valid email address where the invoice should be directed, and indicate you would like to opt into electronic invoice delivery.

Terms of Service

Customer's use of i-Ready® shall be subject to the i-Ready Terms and Conditions of Use, which can be found at i-ready.com/support. Customer's professional-development sessions will expire two years following the date of your purchase order and are subject to the Professional Development Terms of Service, which can be found at i-ready.com/support.

Return Policy

Except for materials sold on a non-refundable basis, purchaser may return, at purchaser risk and expense, purchased materials with pre-approval from CA's Customer Service department within 12 months of purchase. Please examine your order upon receipt. Before returning material, call CA's Customer Service department (1-800-225-0248 option 4) for return authorization and documentation. When returning material, please include your return authorization number and the return form that will be provided to you by CA's Return department. i-Ready®, Toolbox®, and BRIGANCE® Online Management Systems may be returned for a pro-rated refund for the remaining time left on the contract. We do not accept returns on unused i-Ready or Toolbox licenses®, materials that have been used and/or are not in "saleable condition," and individual components of kits or sets including but not limited to BRIGANCE® Kits, Ready® student and teacher sets, Ready Classroom® student and teacher sets, and Magnetic Reading classroom kits.

Curriculum Associates®

Prepared For:
Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223

Budgeting Quote - final quantities needed prior to purchase order

2/24/2023

Dear Amy Anthes,

Thank you for requesting a price quote from Curriculum Associates. The chart below provides a summary of the products and i-Ready Partner Services included. If you have any questions or would like any changes, please contact us.

Implementation Starting: 2023-2024 Quote ID: 315405.5 Valid through: 12/31/2023

Product	List Price	Net Price
i-Ready	$765,430.00	$610,895.00
Professional Development	$402,600.00	$274,500.00
i-Ready Partners Services	$91,500.00	$0.00

i-Ready Partners Services Includes:

- *Initial Implementation Services: Provisioning, Initial Rostering, Hosting, Technology Assessment*
- *Account Management: Account Manager You Know On A First Name Basis, Implementation Guidance, Realtime Achievement Data After Every Assessment, Ongoing Data Management*
- *Staff Development Consultation and Resources: Consultative services to help you plan and make the most of Professional Development sessions; Access to Online Educator Learning (OEL) Digital Courses, and i-Ready Central Self-Service Resources*
- *Technical Support: Proactive Network Monitoring & Issue Notification, Annual Health Check, Technical Support*

List Total:	$1,259,530.00
Savings:	$374,135.00
Shipping/Tax/Other:	$0.00
Total:	**$885,395.00**

Thank you again for your interest in Curriculum Associates.

Sincerely

Steven McBride
304-563-6001
smcbride@cainc.com

This quote is for budgeting/estimate purposes only - cannot be used to purchase

Curriculum Associates

Quote ID: 315405.5 **Date:** 2/24/2023 **Valid through:** 12/31/2023

Prepared For:
Amy Anthes
Henrico Co Public Schools
3820 Nine Mile Rd Ste A,
Richmond, VA 23223
ant041@henrico.us
(804) 652-3600

Your Representative:
Steven McBride
304-563-6001
smcbride@cainc.com

Budgeting Quote - final quantities needed prior to purchase order

Academy at Virginia Randolph 2204 Mountain Rd, Glen Allen, VA 23060

Total Building Enrollment: 100, Grade Range: 7 - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 200 or fewer Students 1 Year	Multiple	14971.0	1	$4,860.00	$3,876.00	$3,876.00
					Subtotal:	$8,376.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,376.00

Anthony Mehfoud ES 8320 Buffin Rd, Henrico, VA 23231

Total Building Enrollment: 288, Grade Range: PK - 2

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 201-350 Students 1 Year	Multiple	14972.0	1	$8,300.00	$6,621.50	$6,621.50
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Arthur Ashe Jr ES 1001 Cedar Fork Rd, Richmond, VA 23223

Total Building Enrollment: 480, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Brookland MS 9200 Lydell Dr, Henrico, VA 23228

Total Building Enrollment: 1129, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Chamberlayne ES 8200 St Charles Rd, Richmond, VA 23227

Total Building Enrollment: 300, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 201-350 Students 1 Year	Multiple	14972.0	1	$8,300.00	$6,621.50	$6,621.50
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Charles M Johnson ES 5600 Bethlehem Rd, Richmond, VA 23230

Total Building Enrollment: 417, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Colonial Trail ES 12101 Bacova Dr, Glen Allen, VA 23059

Total Building Enrollment: 648, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Crestview ES 1901 Charles St, Richmond, VA 23226

Total Building Enrollment: 312, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 201-350 Students 1 Year	Multiple	14972.0	1	$8,300.00	$6,621.50	$6,621.50
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

David Kaechele ES 5680 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Donahoe ES 1801 Graves Rd, Sandston, VA 23150

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Dumbarton ES 9000 Hungary Spring Rd, Henrico, VA 23228

Total Building Enrollment: 570, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Echo Lake ES 5200 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 504, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Elizabeth Holladay ES 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 732, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Elko MS 5901 Elko Rd, Sandston, VA 23150

Total Building Enrollment: 729, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Fair Oaks ES 201 Jennings Rd, Highland Spgs, VA 23075

Total Building Enrollment: 372, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Fairfield MS 5121 Nine Mile Rd, Richmond, VA 23223

Total Building Enrollment: 1071, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Gayton ES 12481 Church Rd, Henrico, VA 23233

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

George F Baker ES 6651 Willson Rd, Henrico, VA 23231

Total Building Enrollment: 384, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

George H Moody MS 7800 Woodman Rd, Henrico, VA 23228

Total Building Enrollment: 1097, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Glen Allen ES 11101 Mill Rd, Glen Allen, VA 23060

Total Building Enrollment: 586, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Glen Lea ES 3909 Austin Ave, Richmond, VA 23222

Total Building Enrollment: 450, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Grad and Performance Lrng Ctr 2915 Williamsburg Rd, Henrico, VA 23231

Total Building Enrollment: 12, Grade Range: 6 - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 200 or fewer Students 1 Year	Multiple	14971.0	1	$4,860.00	$3,876.00	$3,876.00
					Subtotal:	$8,376.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,376.00

Greenwood ES 10960 Greenwood Rd, Glen Allen, VA 23059

Total Building Enrollment: 558, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Harvie ES 3401 Harvie Rd, Richmond, VA 23223

Total Building Enrollment: 486, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Henrico Virtual Academy 7300 Galaxie Rd, Henrico, VA 23228

Total Building Enrollment: 198, Grade Range: PK - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 200 or fewer Students 1 Year	Multiple	14971.0	1	$4,860.00	$3,876.00	$3,876.00
					Subtotal:	$8,376.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,376.00

Henry Ward ES 3400 Darbytown Rd, Henrico, VA 23231

Total Building Enrollment: 474, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Highland Springs ES 600 Pleasant St, Highland Spgs, VA 23075

Total Building Enrollment: 510, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Holman MS 600 Concourse Blvd, Glen Allen, VA 23059

Total Building Enrollment: 857, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Hungary Creek MS 4909 Francistown Rd, Glen Allen, VA 23060

Total Building Enrollment: 870, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Jackson Davis ES 8801 Nesslewood Dr, Henrico, VA 23229

Total Building Enrollment: 498, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Jacob L Adams ES 600 S Laburnum Ave, Richmond, VA 23223

Total Building Enrollment: 444, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

John Rolfe MS 6901 Messer Rd, Henrico, VA 23231

Total Building Enrollment: 885, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

L Douglas Wilder MS 6900 Wilkinson Rd, Richmond, VA 23227

Total Building Enrollment: 742, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Laburnum ES 500 Meriwether Ave, Richmond, VA 23222

Total Building Enrollment: 438, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Lakeside ES 6700 Cedar Croft St, Henrico, VA 23228

Total Building Enrollment: 384, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Longdale ES 9500 Norfolk St, Glen Allen, VA 23060

Total Building Enrollment: 456, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Maude Trevvett ES 2300 Trevvett Dr, Henrico, VA 23228

Total Building Enrollment: 498, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Maybeury ES 901 Maybeury Dr, Henrico, VA 23229

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Montrose ES 2820 Williamsburg Rd, Henrico, VA 23231

Total Building Enrollment: 336, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 201-350 Students 1 Year	Multiple	14972.0	1	$8,300.00	$6,621.50	$6,621.50
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Nuckols Farm ES 12351 Graham Meadows Dr, Henrico, VA 23233

Total Building Enrollment: 569, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Pemberton ES 1400 Pemberton Rd, Henrico, VA 23238

Total Building Enrollment: 330, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 201-350 Students 1 Year	Multiple	14972.0	1	$8,300.00	$6,621.50	$6,621.50
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Pinchbeck ES 1275 Gaskins Rd, Henrico, VA 23238

Total Building Enrollment: 462, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Pocahontas MS 12000 Three Chopt Rd, Henrico, VA 23233

Total Building Enrollment: 822, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Quioccasin MS 9400 Quioccasin Rd, Henrico, VA 23238

Total Building Enrollment: 1050, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

R C Longan ES 9200 Mapleview Ave, Henrico, VA 23294

Total Building Enrollment: 396, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Ratcliffe ES 2901 Thalen St, Richmond, VA 23223

Total Building Enrollment: 402, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Ridge ES 8910 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 426, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Rivers Edge ES 11600 Holman Ridge Rd, Glen Allen, VA 23059

Total Building Enrollment: 770, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Ruby F Carver ES 1801 Lauderdale Dr, Henrico, VA 23238

Total Building Enrollment: 470, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Sandston ES 7 Naglee Ave, Sandston, VA 23150

Total Building Enrollment: 174, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 200 or fewer Students 1 Year	Multiple	14971.0	1	$4,860.00	$3,876.00	$3,876.00
					Subtotal:	$8,376.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$8,376.00

Seven Pines ES 301 Beulah Rd, Sandston, VA 23150

Total Building Enrollment: 348, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 201-350 Students 1 Year	Multiple	14972.0	1	$8,300.00	$6,621.50	$6,621.50
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Shady Grove ES 12200 Wyndham Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 558, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Short Pump ES 3425 Pump Rd, Henrico, VA 23233

Total Building Enrollment: 556, Grade Range: K - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Short Pump MS 4701 Pouncey Tract Rd, Glen Allen, VA 23059

Total Building Enrollment: 1125, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Skipwith ES 2401 Skipwith Rd, Henrico, VA 23294

Total Building Enrollment: 468, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 351-500 Students 1 Year	Multiple	14973.0	1	$11,820.00	$9,435.00	$9,435.00
					Subtotal:	$13,935.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$13,935.00

Springfield Park ES 4301 Fort McHenry Pkwy, Glen Allen, VA 23060

Total Building Enrollment: 564, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Three Chopt ES 1600 Skipwith Rd, Henrico, VA 23229

Total Building Enrollment: 270, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 201-350 Students 1 Year	Multiple	14972.0	1	$8,300.00	$6,621.50	$6,621.50
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Tuckahoe ES 701 Forest Ave, Henrico, VA 23229

Total Building Enrollment: 570, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Tuckahoe MS 9000 Three Chopt Rd, Henrico, VA 23229

Total Building Enrollment: 1071, Grade Range: 6 - 8

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 801-1200 Students 1 Year	Multiple	14975.0	1	$17,890.00	$14,280.00	$14,280.00
					Subtotal:	$18,780.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$18,780.00

Twin Hickory ES 4900 Twin Hickory Lake Dr, Glen Allen, VA 23059

Total Building Enrollment: 516, Grade Range: PK - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 501-800 Students 1 Year	Multiple	14974.0	1	$13,910.00	$11,101.00	$11,101.00
					Subtotal:	$15,601.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$15,601.00

Varina ES 2551 New Market Rd, Henrico, VA 23231

Total Building Enrollment: 239, Grade Range: 3 - 5

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Online Educator Learning Platform Site License Including Educator Prep Series (Complements Onsite and Virtual Professional Development)	Multiple	28024.0	1	$600.00	$0.00	$0.00
Professional Development i-Ready Assessment and Personalized Instruction New User Package - Getting Good Data, Using Data to Plan Instruction, and Tailored Support	Multiple	19979.0	1	$6,000.00	$4,500.00	$4,500.00
i-Ready Partners Implementation Support - Provisioning + Tech Support + Hosting + Data Management + Implementation Planning + Data Reviews + and Check ins 1 Year	Multiple	27939.0	1	$1,500.00	$0.00	$0.00
i-Ready Assessment and Personalized Instruction Reading Site License 201-350 Students 1 Year	Multiple	14972.0	1	$8,300.00	$6,621.50	$6,621.50
					Subtotal:	$11,121.50
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$11,121.50

Henrico Co Public Schools 3820 Nine Mile Rd Ste A, Richmond, VA 23223

Total Building Enrollment: 33040, Grade Range: K - 12

Product Name	Grade	Item #	Qty	List Price	Net Price	Total
Professional Development i-Ready Assessment and Personalized Instruction Add on Leadership Session	Multiple	19984.0	6	$0.00	$0.00	$0.00
					Subtotal:	$0.00
					Shipping:	$0.00
					Tax:	$0.00
					School Subtotal:	$0.00

Total	
List Total:	$1,259,530.00
Savings:	$374,135.00
Merchandise Total:	$885,395.00
Voucher/Credit:	$0.00
Estimated Tax:	$0.00
Estimated Shipping:	$0.00
Total:	$885,395.00

Special Notes

15% discount applied to i-Ready based on scope of quote.
All i-Ready purchases require professional development.
For budgeting purposes only, final quote needed with updated quantities.

F.O.B.: N. Billerica, MA 01862
Shipping: Shipping based on MDSE total
Terms: Net 30 days, pending credit approval
Fed. ID: #26-3954988

This quote is for budgeting/estimate purposes only - cannot be used to purchase

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Curriculum Associates®

Information on Professional Development Sessions and COVID-19

Protecting the health and safety of the educators we serve and their students, as well as the health and safety of our employees, is of paramount importance to Curriculum Associates. While it is our preference to deliver PD sessions in person, circumstances related to COVID-19 may require us to provide sessions virtually instead. Curriculum Associates' policy is to only provide PD sessions in person where one of our employees can reach the session site by car and where adequate safety measures are in place to protect the health of our session leaders and participants. Curriculum Associates reserves the right to switch any session from in-person to virtual if we cannot reach a session site by car, if adequate safety measures cannot be put in place, or if Curriculum Associates determines that it would otherwise put it employees at risk to provide an in-person session.

If your school or district will not permit visitors at the time of a scheduled session, Curriculum Associates would be happy to provide an equivalent live, virtual session via videoconference. Similarly, Curriculum Associates will comply with your school or district's health and safety requirements regarding on-site visitors if we are given adequate advance notice. Our PD Operations team will work with school or district personnel to hold sessions in a manner that protects the safety of educators and your school community as well as Curriculum Associates employees.

We are pleased to be able to serve you in these challenging times and look forward to providing productive learning sessions to your staff. Any questions regarding scheduling in-person or virtual training sessions should be directed to pdoperations@cainc.com.

i-Ready Partners

Unparalleled Service and Educator Support

The *i-Ready Partners* team was born from our core value: the quality of our services is as important as the quality of our products. Know that when you implement our programs, your local *i-Ready Partners* will be there to support your team every step of the way.

Service Components

Our *i-Ready Partners* team is tasked with helping you implement our programs to meet ambitious district goals. *i-Ready Partners* support includes:

- **An Account Manager You Know on a First-Name Basis:** Dedicated account managers are your point of connection to a powerful network of *i-Ready* experts focused on making your implementation successful.
- **Consultative Professional Development Planning:** Tailored professional development plans ensure that PD is tied to your implementation goals and that educators are equipped to optimize the use of our programs from day one.
- **Real-Time Achievement Data after Every Assessment:** Detailed student achievement analytics to empower data-driven practices in classrooms.
- **Educational Consultants to Help You Know What's Coming Next:** Educational consultants to keep you up to speed on our latest research, development, and best practices.
- **Technical Support and Health Checks:** Proactive support that anticipates and heads off issues before they start—and is there for you should they arise.



Account Management | **Professional Development** | **Educational Consultants** | **Achievement Analytics** | **Technical Support**

Your *i-Ready Partners* Team

Dedicated to helping you implement *i-Ready* programs and achieve your district goals



Curriculum Associates

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Curriculum Associates®

Placing an Order

Email: Orders@cainc.com
Fax: 1-800-366-1158
Mail:
ATTN: CUSTOMER SERVICE DEPT.
Curriculum Associates LLC
153 Rangeway Rd
North Billerica, MA 01862-2013

Please visit CurriculumAssociates.com for more informationabout placing orders or contact CA's customer service department (1-800-225-0248) and reference quote numberfor questions.
Please attach quote to all signed purchase orders.
If tax exempt, please submit a valid exemption certificate with PO and quote in order to avoid processing delays. Exemption certificates can also be submitted to exempt@cainc.com.

Shipping Policy

Unless otherwise noted, shipping costs are calculated as follows:

Order Amount	Freight Amount
$74.99 or less	Max charge of $12.75
$75.00 to $999.99	12% of order
$1,000 to $4,999.99	10% of order

Order Amount	Freight Amount
$5,000.00 to $99,999.99	9% of order
$100,000 and more	7% of order

Please contact your local CA representative or customer service (1-800-225-0248) for expedited shipping rates. The weight limit for an expedited order is 500lbs.

The enhanced shipping and handling services listed below are available upon request subject to the availability of our carrier partners. Please notify us of these delivery requests prior to submitting your PO so that we can include the service on your quote appropriately:

- Interior Location Delivery $50/shipment location
- White Glove Delivery Service $350/shipment location

If our carrier partners are unable to deliver to the location instructed on the PO or you need to change the time or location of delivery, one or more of the following fees may be applicable:

- Delivery Address Change $100/shipment location
- Freight Storage $150/day/shipment location
- Freight Carrier Redelivery $100/shipment location

Unless otherwise expressly indicated, the shipping terms for all deliveries is FOB CA's Shipping Point (whether to a CA or third party facility). Risk of loss and title is passed to purchaser upon transfer of the goods to carrier, standard shipping charges (listedabove) are added to the invoice or included in the unit price unless otherwise specified.

Supply chain challenges outside of Curriculum Associates' control may impact inventory availability for print product. We recommend submission of purchase orders as soon as possible to help ensure timely delivery.

Payment Terms

Payment terms are as follows:

- With credit approval: Net 30 days
- Without credit approval: payment in full at time of order
- Accounts must be current before subsequentshipments are made

To ensure payment processing is timely and environmentally conscious, CA encourages ACH or wire payments. CA's bank remittance information is:

- Account Number: 4418064408 | ABA Routing: 121000248
- Bank Name: Wells Fargo Bank – San Francisco, CA | Account Name: Curriculum Associates, LLC
- SWIFT Code (International Only): WFBIUS6S
- Tax ID: 26-3954988

Please send any payment notifications to payments@cainc.com. Credit card payments are only accepted for purchases under $50,000.

Invoice Receipt Preference

CA is pleased to offer electronic invoice delivery. Electronic invoice delivery allows CA to deliver your invoice in a timely and environmentally friendly manner. To request electronic invoice delivery please contact the CA Accounts Receivable team at invoices@cainc.com or by fax (1-800-366-1158). Please reference your quote number, provide a valid email address where the invoice should be directed, and indicate you would like to opt into electronic invoice delivery.

Terms of Service

Customer's use of i-Ready® shall be subject to the i-Ready Terms and Conditions of Use, which can be found at i-ready.com/support. Customer's professional-development sessions will expire two years following the date of your purchase order and are subject to the Professional Development Terms of Service, which can be found at i-ready.com/support.

Return Policy

Except for materials sold on a non-refundable basis, purchaser may return, at purchaser risk and expense, purchased materials with pre-approval from CA's Customer Service department within 12 months of purchase. Please examine your order upon receipt. Before returning material, call CA's Customer Service department (1-800-225-0248 option 4) for return authorization and documentation. When returning material, please include your return authorization number and the return form that will be provided to you by CA's Return department. i-Ready®, Toolbox®, and BRIGANCE® Online Management Systems may be returned for a pro-rated refund for the remaining time left on the contract. We do not accept returns on unused i-Ready or Toolbox licenses®, materials that have been used and/or are not in "saleable condition," and individual components of kits or sets including but not limited to BRIGANCE® Kits, Ready® student and teacher sets, Ready Classroom® student and teacher sets, and Magnetic Reading classroom kits.

Tab 7– Exceptions

In this tab, Offerors shall list any exceptions taken to the Scope of Services and General Terms and Conditions of this Request for Proposals. The County intends to make the RFP and the Successful Offeror's proposal a part of the contract between the parties, so Offerors should list any exceptions for purposes of negotiating the contract. Exceptions to any liability provisions contained in this Request for Proposals is not required to be submitted.

Clarifications and Exceptions

Curriculum Associates respectfully requests the following clarifications and exceptions. We look forward to working collaboratively with Henrico County Public School District to find solutions to these areas that are amenable to both parties:

1. Section V. General Contract Terms and Conditions, Subsection DD. Contract Period (page 13), Section VII. Proposal Response Format, Subsection A and B(8) (page 16 and 17) and Attachment G "Sample Contract"; Section "Contract Documents" and Section "Contract Term" (page 28)

Curriculum Associates requests these Exceptions and Clarifications be incorporated into its proposal to this RFP and any resulting Agreement and shall take precedence over any conflicting terms set forth in the RFP documents.

Additionally, Curriculum Associates requests that any renewals be made at Curriculum Associates' then-current pricing, with the agreed-upon 3% cap of the previous year's prices.

2. RFP-23-2481-1ARA – Section V. General Contract Terms and Conditions Subsection A. Annual Appropriations (page 5) and Subsection F. Termination by County (subsection 2 and subsection 3) (page 6)

Curriculum Associates requests that upon any termination for non-appropriation, payment will be made for products/services received prior to such termination upon such termination. Additionally, regarding termination under Subsection F, as Curriculum Associates is a sole-source provider of its proprietary goods and services, there is no alternative remedy available other than a pro-rata refund of all unused fees paid up to the date of termination.

3. RFP-23-2481-1ARA – Section V. General Contract Terms and Conditions Subsection B. Award of Contract (#3) (page 5) and Subsection M. Assignment of Contract (page 8)

Curriculum Associates wishes to clarify that contract assignment may occur without the written consent of the County in connection with the sale of all or substantially all of the outstanding assets or equity of Curriculum Associates.

4. RFP-23-2481-1ARA – Section V. General Contract Terms and Conditions Subsection D. Compensation (page 5)

Curriculum Associates wishes to clarify that its subscription-based products are billed annually in advance.

5. RFP-23-2481-1ARA – Section V. General Contract Terms and Conditions Subsection G. Drug-Free Workplace to be Maintained by Contractor (page 7), Subsection V. Subcontracts, (page 10), Subsection CC. Payment Clauses Required by Va. Code §2.2-4354 (page 12) and Virginia School Data Privacy Agreement, Article II: Data Ownership and Authorized Access- Section 5. Subprocessors (page 32) and Exhibit "C" Definitions "Subprocessor" (page 46)

Curriculum Associates wishes to clarify that for purposes of this RFP and accompanying documents and any resulting contract, "subcontractor" or "subprocessor" shall not include Curriculum Associates' cloud hosting provider, and vendors used in the ordinary course of business who perform technology and software development and maintenance services under Curriculum Associates' supervision on Curriculum Associates' internal systems.

6. RFP-23-2481-1ARA – Section V. General Contract Terms and Conditions Subsection L. Testing and Inspection (page 8)

Curriculum Associates wishes to clarify that any performance evaluation of our services must be performed in accordance with the terms of use for *i-Ready*, and with reasonable cooperation and input from Curriculum Associates.

7. RFP-23-2481-1ARA – Section V. General Contract Terms and Conditions Subsection N. Indemnification (page 9)

Curriculum Associates wishes to clarify that it will agree to indemnify, defend and hold harmless, HCPS and the County from any third-party damages, liabilities and costs arising from any third-party claims, demands, actions or proceedings.

8. RFP-23-2481-1ARA – Section V. General Contract Terms and Conditions Subsection R. Ownership of Deliverable and Related Products (pages 9-10)

Curriculum Associates would like to confirm that, and for the avoidance of doubt, HCPS acknowledges and agrees that Curriculum Associates' proprietary software solution, related digital products and services, and all intellectual property rights therein are owned solely and exclusively by Curriculum Associates and, except for the licenses granted explicitly herein, nothing in this RFP shall grant HCPS any right, title, and interest in or to the software solution or related services or training materials.

9. RFP-23-2481-1ARA – Section V. General Contract Terms and Conditions Subsection KK. Cooperative Procurement (pages 14-15)

Curriculum Associates wishes to clarify that cooperative purchasing may be permitted for those entities purchasing the same products directly from Curriculum Associates under the same terms and in the same quantities as offered under this contract.

10. RFP-23-2481-1ARA Virginia School Data Privacy Agreement – Article I: Purpose and Scope, Subsection 4. DPA Definitions (page 31) and Exhibit "C" Definitions (page 44)

For purposes of this Agreement and for the avoidance of doubt, "Division Data", "Pupil Records", "Student Data" or "Pupil Generated Content" does not include de-identified data, which refers to data generated from student usage of its products or services from which all personally identifiable information has been removed or obscured so that it does not identify individual students and there is no reasonable basis to believe that the information can be re-identified or otherwise used to identify individual students ("De-identified Data"). Provider maintains the perpetual right to use De-Identified Data for product development, product functionality and research purposes, as permitted under the Family Educational Rights and Privacy Act (FERPA).

11. RFP-23-2481-1ARA Virginia School Data Privacy Agreement– Article II Data Ownership and Authorized Access, Section 3. Student Generated Content (page 31).

Curriculum Associates wishes to clarify that its products do not generate or contain any Student Generated Content.

12. RFP-23-2481-1ARA Virginia School Data Privacy Agreement– Article IV. Section 4. Use of De-identified Information (page 32)

Curriculum Associates requests to strike the following language:

"The Provider and Division agree that the Provider cannot successfully de-identify information if there are fewer than twenty (20) students in the samples of a particular field or category of information collected, i.e., twenty students in a particular grade, twenty students of a particular race, or twenty students with a particular disability."

Curriculum Associates will comply with all terms and conditions of FERPA as it applies to use of de-identified data and will not use data that can be re-identified but cannot agree to a minimum number of records.

Additionally, Curriculum Associates requests to strike the language that refers to prior written notice for transfer of de-identified data. Curriculum Associates maintains the perpetual right to use De-Identified Data for product development, product functionality and research purposes, as permitted under the Family Educational Rights and Privacy Act (FERPA) and may transfer such de-identified data to its trusted third-party research providers strictly in accordance with FERPA.

13. RFP-23-2481-1ARA Virginia School Data Privacy Agreement - Article IV: Duties of Provider- Section 5. Disposition of Data (page 33)

Provider would like to clarify that any disposition of Division data will not include data which may have been archived for disaster recovery purposes, which data will be removed from our backup servers over time, in accordance with our company's data retention and destruction policies, consistent with standard industry practice. Any such archived Division data shall remain fully subject to the confidentiality obligations set forth in the agreement. Additionally, Curriculum Associates confirms it will provide written confirmation of destruction upon receipt of a written request from Division.

14. RFP-23-2481-1ARA Virginia School Data Privacy Agreement Article V: Data Provisions- Section 1. Data Security; Subsection (e) Periodic Risk Assessment (page 34); and Section 2. Unauthorized Access or Data Breach (a), (d) (page 35)

As to Periodic Risk Assessment 1(e), Provider will submit to Division a summary of the results of the findings of any conducted risk assessment and work with Division to remediate any high-risk vulnerabilities in a timely manner. As to Section 2 Unauthorized Access or Data Breach (a) Provider will promptly notify the Division upon verification of an actual security breach and allow the Division or its authorized representatives to fully participate in the investigation. Additionally, as to (d), Provider will not communicate directly with affected persons but will reimburse Division for costs incurred in providing the breach notification to affected persons. Provider does not collect financial information, therefore does not provide monitoring services.

Certificate of Insurance

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 2/14/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Eastern Insurance Group LLC
233 West Central St
Natick MA 01760

CONTACT NAME: Marisa Coppola O'Malley
PHONE (A/C, No, Ext): 781-309-9482 **FAX (A/C, No):** 781-586-7763
E-MAIL ADDRESS: MCoppolaOMalley@easterninsurance.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Hartford Fire Insurance Co	19682
INSURER B : Trumbull Insurance Company	27120
INSURER C : Hartford Casualty Ins Co	29424
INSURER D : Westchester Surplus Lines Insurance Co	10172
INSURER E :	
INSURER F :	

INSURED 257957
Curriculum Associates LLC
153 Rangeway Road
North Billerica MA 01862

COVERAGES **CERTIFICATE NUMBER:** 196110781 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** [ ] CLAIMS-MADE [X] OCCUR X Abuse & Molestat X $1M Occ/$2M Agg GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:	Y		08UUNBA6769	1/1/2023	1/1/2024	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 1,000,000 $ 300,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $
B	**AUTOMOBILE LIABILITY** [ ] ANY AUTO [ ] OWNED AUTOS ONLY [X] SCHEDULED AUTOS X HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			08UENBA7382	1/1/2023	1/1/2024	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
C	X **UMBRELLA LIAB** [X] OCCUR **EXCESS LIAB** [ ] CLAIMS-MADE [ ] DED X RETENTION $ 10,000			08XHUBA6907	1/1/2023	1/1/2024	EACH OCCURRENCE AGGREGATE $	$ 15,000,000 $ 15,000,000 $
A	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y/N N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		08WBAE7J6L	1/1/2023	1/1/2024	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
D	Professional Liability & Cyber Liability			F15306580004	1/1/2023	1/1/2024	Each Claim/Agg Prof/Cyber Deductible	$5,000,000 $250,000/$250,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
County of Henrico and Henrico County Public Schools are named as an additional insured for the Commercial General Liability coverage

CERTIFICATE HOLDER

County of Henrico
Risk Management
P.O. Box 90775
Henrico VA 23273

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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Tab 8 – Assumptions

In this tab, offerors shall list any assumptions made when responding to this Request for Proposals.

Assumptions are captured in the Exceptions and Clarifications, Tab 7.

Tab 9 – Appendices

Optional for Offerors who wish to submit additional material that will clarify their response.

List of Appendices

Appendix A – Technical Components (Excel File)

Appendix B – *i-Ready* Accessibility and Accommodations Update

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Appendix D – Correlations of *i-Ready Diagnostic* to Virginia Standards of Learning K–8 Reading and Math

Appendix E – Correlations of *i-Ready Personalized Instruction* to Virginial Standards of Learning K–8 Math and Reading

Appendix F – Independent Research Summaries

- *i-Ready* Receives High Ratings from NCII
- *i-Ready* Improves Outcomes for Striving Learners: Evidence to Support Addressing Unfinished Learning
- Curriculum Associates' *i-Ready* Receives Positive Review in The Twentieth Mental Measurements Yearbook Published by the Buros Center for Testing

Appendix G – *i-Ready* Reports Book

Appendix H – *i-Ready* Professional Development Brochure

Appendix I – Resumes of Staff and Local Representatives

Appendix J – Access instructions for our *i-Ready* demonstration site

Appendix K – *i-Ready* Connect System Requirements

Appendix A – Technical Components (Excel File)

	SPECIFIC REQUIREMENTS- APPENDIX A Technical Components		
	Integration	Y/N	Response
1.1	Does your solution provide methods for user account administration that are easy to use and manintain?	Y	Curriculum Associates can provision data using multiple methods. The preferred provisioning method is automated provisioning, which can be accomplished via APCSV, ClassLink®, Clever®, or OneRoster®. *i-Ready* can accept uploads from the District's Student Information System (SIS) daily to keep the accounts in sync; this is typically a nightly process. Updates are easily made; any changes in the District's SIS, such as a student transferring from one school to another within the District, are made when a new data file is loaded into the system. *i-Ready* embeds two user types for administrators: District Administrators and School Administrators. District Administrators (for district accounts) and School Administrators (for school accounts) can perform a wide range of account administration functions, such as creating and modifying access for other users; creating and modifying testing windows; assigning and canceling a *Diagnostic* ; restricting student access to the *Diagnostic* to certain times; and much more. During live professional development, administrators will receive step-by-step directions on how to accomplish common administration tasks in *i-Ready* . Guidance is also provided in the *i-Ready Leader Success Guide* (https://i-readycentral.com/pdfs/i-ready-success-guide-for-leaders/).

1.2	Does your solution support a single sign-on solution that does not require staff or students to have a separate account or password for accessing the application?	Y	*i-Ready* provides Single Sign-On (SSO) capability. This eases the login process by allowing students and staff to log in to *i-Ready* via their District portal. We support SSO for clients using an automated provisioning option, which can be performed using one of the following methods: • Clever SSO: Clever Badges and Clever Portal are both supported • Security Assertion Markup Language (SAML) Authentication: Examples include ADFS, ClassLink, Stoneware, and other SSO portals that support SAML 2.0
1.3	Does your solution allow for LTI, Azure Active Directory or LDAP as a method of authentication and authorization?	Y	LTI: For schools wanting to use Learning Tools Interoperability (LTI)® to launch the *i-Ready* dashboard, the learning management system (LMS) must support the following IMS global standards: Learning Tools Interoperability (LTI)® v1.3. Azure: Curriculum Associates supports Single Sign On (SSO) via a SAML 2.0 capable Identity Provider. (This includes AzureAD, AD FS, etc.)
1.31	If your solution is reliant on LDAP authentication, is there a defined external IP address to allow firewall transactions? HCPS will not accedpt the allowand of entire network segments.	N/A	The solution is not reliant on LDAP authentication.

1.4	Does your solution provide a means to identify the individual or client using the application, authenticate the individual, and determine the authorities and rights granted to that individual?	Y	All users are required to have unique usernames and passwords that provide access to the *i-Ready* system. Passwords are managed centrally within *i-Ready* . *i-Ready* embeds four user-access levels: District Administrator, School Administrator, Teacher, and Student. Permissions and functionality are keyed to each user's unique login credentials. These credentials may be disabled, or the access level changed by authorized district or Curriculum Associates personnel. The District can assign users to any of these roles, with different access rights and levels of authorization for each. In addition to the user-access levels, we have various firewalls, network limitations, and security groups that limit access and eliminate the ability to bypass security controls. Audits of historical changes to the *i-Ready* system are covered by a variety of processes and procedures. For software releases and server changes, we follow a documented Production Change Request (PCR) process—with all major releases including published release notes. All changes are documented and communicated to *i-Ready* product and technology personnel. For security monitoring and log management audits, we use a combination of Amazon CloudTrail and Splunk. The *i-Ready* application itself logs any changes to customer configurations or user management changes to an audit log.

1.5	Does your solution provide a reporting engine for tracking usage and progress?	Y	Educators can track student and class usage and progress through myriad reports. Assessment reports such as Diagnostic Results, Diagnostic Growth, Standards Performance, Growth Monitoring Results, and Standards Mastery Results track student progress. Reports for *Personalized Instruction* (if implemented) show student performance in *i-Ready* lesson modules and record time on task, among other data points. Administrators can view *i-Ready* reports at all levels, with the capability of exporting reports to Excel and CSV files, to track *i-Ready* usage and outcomes and facilitate score analyses. For a full list of reports, see page 95 the "Standard Reports for Grades K–8, Virginia" table in Tab 5 > Section Section II B. Specific Requirements. This table is followed by a table summarizing School- and District-Level Exports. Additionally, District administrators may view license usage information on the License Usage screen, which is accessed from the Management menu of the *i-Ready* dashboard. District administrators can view license usage information for all schools in the district, or can narrow the list down to selected schools using the Name field. License usage information is updated daily.

1.6	The exchange of data must be through a common protocol and not require the installation of vendor specific software in the HCPS internal infrastructure. HCPS currently supports the following means of exchanging student information: 1) LTI integration as a Tool Provider (TP) with our LMS solution Schoology, 2) Student Information framework (SIF), 3) Exchange of information through Clever (a third party vendor for exchanging common data for school systems, 4) File exchange via the IMS OneRoster format to a vendor supported sFTP server v. File exchange to a vendor supported sFTP server. Does your solution support requirements for student, staff, course, roster or school information through one of the current common protocols? Successful Offeror will be responsible for any costs incurred with Clever implementation. File exchange to a vendor supported sFTP will require vendor to provide all specifications for file requirements.	Y	The system is maintained by Curriculum Associates. *i-Ready* is a fully web-based, vendor-hosted, SaaS application. There is minimal work for schools to do for installation (coordinating with us on integration/rostering and other tasks), and no maintenance is required of the District. All upgrades are pushed from our centrally hosted, secure servers directly to the application. We follow industry best practices in the maintenance, back-up, and security of all program servers. Online servers are proactively and intensively monitored constantly (24x7x365). Advanced system performance equipment quickly identifies server performance issues with a rapid response system in place if any corrective action is necessary. *i-Ready* supports the following means of exchanging student information with HCPS in line with current common protocols: 1) LTI - As described in our response to item 1.3. 2) SIF - We have not embraced SIF as part of our solution. However, we can set up a data exchange with HCPS through which we receive student provisioning information automatically. If desired, we can also supply HCPS with student results data for import into their data system. 3) Clever - As described in our response to item 1.2. 4) OneRoster - As mentioned in our response to item 1.1.

1.7	Describe in detail the proposed data exchange solution to include any limitations of the solution such as number of teachers for a class and number of schools associated with teachers.	Y	All data transfers are conducted using a secure internet protocol (SSL and https). Continuous maintenance plans are in place to keep all servers optimized. Automated provisioning is our recommended method of rostering, with roster synchronization available through several options including Clever; ClassLink; OneRoster v1.1 API; or One Roster CSV. Additional information about each of these provisioning methods will be provided and reviewed during initial implementation discussions. We support SSO for clients using an AP option, via SAML 2.0. Our SAML 2.0 offering for SSO can be used in conjunction with any automated provisioning rostering method: Clever, OneRoster, or ClassLink. Regarding limitations, *i-Ready* use is scalable. *i-Ready Partners* , including Partner Success Management, Technical Support, and Professional Development staff, manage many implementations and effectively scale to meet client demand. Nationwide, we support close to four million active users in a single day during peak usage times, with more than one million *Diagnostic* assessments conducted in a single day.
1.8	Will any additional fees be charged to HCPS for data integration?	N	There are no additional fees associated with data integration.
1.9	Does your solution allow for seamless integration through the IMS Global interoperability standards?	Y	Curriculum Associates is an affiliate member of 1EdTech Consortium (formerly IMS Global Learning). This membership allows us access to various programs and technical resources to ensure seamless implementation of 1EdTech open standards.

1.10	Provide a detailed descripiton of the implementation and support the solution has for LTI version 1.1 or higher certified as a Tool Provider (TP) with our LMS Solution.	Y	For schools wanting to use Learning Tools Interoperability (LTI)® to launch the *i-Ready* dashboard, the learning management system (LMS) must support the following IMS global standards: Learning Tools Interoperability (LTI)® v1.3. *i-Ready* supports educators using Learning Management Systems (LMSs) by providing easy access to *i-Ready* with Single Sign-On (SSO) through leading district login portals and options for digital sharing of resources from *Teacher Toolbox* (if purchased) through LMS platforms.
1.11	Will you provide all documentation for each piece of software equipment and software, to include copyright information, operator and user manuals, training materials for the proper use of the software where an installation of configuration on HCPS network or devises are required?	Y	**Copyright**: *i-Ready* was created in 2011 with continual updates and enhancements. We are currently on version 13.5, which was updated and is subject to copyright protections for 2023. **User Manuals**: The *i-Ready Teacher Success Guide* and the *i-Ready Leader Success Guide* are accessible from the *i-Ready* educator dashboard and online, from *i-Ready Central* . **Training Materials**: To complement the live courses, several online vehicles will be available to District users 24/7: • Online Educator Learning: HCPS users will have unlimited access to our Online Educator Learning platform. Available via *i-Ready Connect* , it houses digital professional development courses for teachers and leaders. • *i-Ready Central* : HCPS educators will have access to our support website *i-Ready Central* at https://i-readycentral.com/. This website offers on-demand access to best-practice tips, how-to guides, recorded webinars, videos, planning tools, and additional training and implementation resources. • Collaborative Learning Extensions: CLEs support faculty and staff development efforts by prompting reflection and deepening practice between formal *i-Ready* professional development sessions.

1.12	Please describe, in detail your implementation plan and schedule.	Y	Included with this submission is an implementation plan and schedule, provided on page 142 in the "Key Implementation Milestones" table in Tab 5 > Section Section II D. Demonstrated Compliance with the Scope of

	SPECIFIC REQUIREMENTS- APPENDIX A Technical Components		
	Software as a Service (SaaS) Solution	Y/N	Response
2.1	Provide details of the hosting environment to include hosting provider, service level agreements between the Offeror and the hosting provider.	Y	We host all our servers (development, test, Quality Assurance, support, production) in the cloud at Amazon Web Services (AWS), a Level 1 data center. All data is stored within the United States. Our primary installation is in the US East (Northern Virginia) region of AWS. Within that region, AWS maintains several Availability Zones, which are distinct locations within the region. The Northern Virginia region utilizes six Availability Zones, and each zone is backed by one or more physical data centers. Each Zone has redundant and separate power, networking, and connectivity to reduce the likelihood of two Zones failing simultaneously. *i-Ready* is deployed in multiple Availability Zones. We maintain a Disaster Recovery site in Amazon's Oregon regional facilities. We have servers in Oregon that could be started up to recreate the *i-Ready* environment. Our hosting provider AWS has service level agreements in place for each of the services that we use.

2.2	Does your solution have structures in place to ensure high availability, redundancy, disaster recovery, backup schedules, failover, scalability, and protection against denial of service attacks or network threats? If yes, please explain.	Y	Amazon utilizes a system of multiple Availability Zones to accomplish redundancy across applications and databases. Database backups are stored locally at the primary hosting facility for 14 days. On a daily basis, backups are also shipped to the secondary disaster recovery Amazon facility. The *i-Ready* system architecture relies on multiple hardware devices sitting behind a load balancer. This configuration provides failover options in the event that one or more servers become unavailable at any given time. Thus, failover of a specific server in the architecture would not affect system performance. For scale, we are able to grow horizontally (adding more servers at the load balancer, content server, application server, and database slave server levels). We can also grow vertically at all levels by increasing server capacity. AWS allows us to scale in a matter of minutes, although generally we are monitoring and planning scale increases during overnight maintenance windows.
			We use a variety of Amazon services and best practices that provide protection against denial-of-service (DOS) attacks. These include: use of Route53 for Domain Name System (DNS) service—providing high availability and scalability to a frequent target service for DOS attacks; use of Amazon Virtual Private Clouds (VPCs) and Security Groups; Private DNS for internal-only server access; ease of horizontal and vertical scaling via EC2 and Relational Database Service (RDS) instance sizing and implementation; Reduction of Attack Surface—only allow port 443 from external IPs to the application; and follow many of the best practices identified by Amazon.

2.3	What are the solution's security measures in place for data security during storage and transit?	Y	We conduct data transmission for *i-Ready* using a secure Internet protocol (SSL and https). As a web-based, Software-as-a-Service (SaaS) application, *i-Ready* is accessible only through https. In cases where we need to transfer data with a district student information system, we employ a Secure File Transfer Protocol (SFTP) server. Data is encrypted; *i-Ready* employs the following encryption types: • Database encryption: All *i-Ready* database servers are encrypted using industry standard AES-256 encryption. • Network encryption: *i-Ready* is accessible only via https, and all public network traffic is encrypted with the latest encryption standards. • Data-at-rest/data-in-motion encryption: Encryption of data at rest is implemented for all data stored in the *i-Ready* system. All data transfers are conducted using a secure Internet protocol (Secure Sockets Layer [SSL] and https). • Backup encryption: As indicated above, all *i-Ready* database servers are encrypted using industry standard AES-256 encryption. AWS implements network-level security measures in accordance with industry standards that are layered on top of our network controls such as security groups, firewalls, and virtual private networking. Continuous maintenance plans are in place to keep all servers optimized. Our data hosting facility includes 24x7x365 on-site security and does not allow any physical access to the server area by non-authorized personnel or outside visitors at any time.

2.4	Provide current SOC 2 attestation.	Y	Curriculum Associates has successfully completed a Service Organization Control (SOC) 2 Type 1 audit. Conducted by Wolf and Company P.C., a top regional certified public accounting firm in the Northeast with expertise in IT audits, the audit affirms that *i-Ready's* information security practices, policies, procedures, and operations meet the SOC 2 standards for security, availability, and confidentiality. Curriculum Associates' SOC 2 report verifies the existence of internal controls which have been designed and implemented to meet the requirements for the principles set forth in Trust Services Principles and Criteria for Security, Availability, Processing Integrity, Confidentiality, and Privacy. The audit provides a thorough review of how *i-Ready's* internal controls affect the security, availability, and processing integrity of the systems it uses to process users' data, and the confidentiality and privacy of the information processed by these systems. This independent validation of security controls is essential for customers in the education space.
2.5	Does your solution have internet bandwidth requirements and any per user bandwidth usage specifications? If so, please explain.	Y	For individual users, the minimum amount of bandwidth required to use *i-Ready* is 768Kbps per active user (2Mbps per active user recommended). At the district and site levels, the minimum required bandwidth of 768 Kbps per active user can be multiplied by the estimated total peak simultaneous active users for the total bandwidth required at each. Other variables can influence the way the overall system performs regardless of the amount of bandwidth. These variables may include the number of concurrent users, low-performing devices, security appliances (e.g., content filter and firewall), jitter, and latency. To check a computer's configuration and network health to ensure *i-Ready* will run smoothly, users can access the *i-Ready Configuration Check* utility here: https://cdn.i-ready.com/systemcheck/.

2.6	Will your soluton allow the availability of remote access to the district's data outside of the application? If so, please provide specifics.	Y	Upon request, Curriculum Associates can provide the District data such as student, class, school, and District rostering and report data digitally through methods such as Secure File Transfer Protocol.
2.7	What is the frequency and duration of system updates and procedures to inform users of maintenance and system downtime?	Y	We roll major updates, upgrades, and enhancements into new releases, which we deploy periodically throughout the year. Feature releases occur approximately every eight weeks. On average, we then have four or five software patches/updates between these feature releases; these patches are generally small in scope and usually targeted to a small enhancement versus a major bug fix. Our goal is to minimize any down time for users. We conduct releases off-hours to minimize the impact, and there are no periodic changes for districts that will impact a system availability. We alert customers of upcoming upgrades on the *i-Ready* site banner 1–2 weeks prior to a release. Unplanned events are also communicated on the banner, as well as on our system check page at https://cdn.i-ready.com/systemcheck/. Release notes explain the new software features.
2.8	Are there any tools available to measure system responsiveness?	Y	We heavily monitor a range of performance metrics via Amazon Web Services (AWS) CloudTrail, DataDog, App Dynamics, and Splunk. In addition, we utilize Pingdom to conduct availability and response time tests from agents all across the globe.

2.9	Does your solution allow for visitor and student operations to continue in case of an internet or system outage? If so, how?	Y	As a web-based, Software-as-a-Service (SaaS) application, *i-Ready* requires internet access. In the case of internet or system outage, we offer a number of safeguards to protect data: • During *Diagnostic* testing, *i-Ready* saves each response as the student submits it. Therefore, students' work is saved in the event of an outage. • For *Personalized Instruction* (if implemented), lessons have resume functionality; if students have to exit the lesson, they resume the lesson at the beginning of the last activity that was not completed. • Our services are hosted by Amazon Web Services, a Level 1 data center that mandates full generator backup and auxiliary power in case of utility interruption. • The *i-Ready* system architecture relies on multiple hardware devices sitting behind a load balancer, which provides failover options in the event that one or more servers become unavailable. Thus, failover of a specific server in the architecture would not affect system performance; the load would be automatically taken up by the other servers in the architecture.
2.10	Does your solution include warranty and updates? If yes, please describe.	Y	Warranty: Our goal is to ensure your *i-Ready* licenses fully meet or exceed HCPS's expectations. We stand behind our programs and strive to clearly and accurately describe their features and functionality. For program licenses, if not fully satisfied, within 12 months of purchase the District may request a refund for any remaining *i-Ready* license term with pre-approval from our Customer Service department. Updates: Yes, our solution includes updates as described in 2.7 above.

	SPECIFIC REQUIREMENTS- APPENDIX A Technical Components		
	Web Accessibility	Y/N	Response
3.1	Does your solution meet Level A and Level AA guidelind as specified in the WCAG2.0 guidelines?If yes, please describe how this functionality is achieved and include a completed Voluntary Product Accessibility Template (VPAT). If no, does your solution provide alternate accessibility fuctionality? Please describe.	Y	*i-Ready Diagnostic* meets the WCAG 2.0 AA standard, and the *i-Ready Assessment* suite also meets the majority of WCAG 2.1 AA criteria. Curriculum Associates has provided a Voluntary Product Accessibility Template (VPAT) in Tab 9 **Appendix C** with detailed information about limited documented exceptions for criteria currently at "Partially Supports," which includes information about plans to reduce/remove these exceptions.

3.2	Does your solution comply with Section 508 of the Rehabilitation Act?	Y	As of January 2017, Section 508 adopted WCAG 2.0's success criteria to Level AA conformance. To learn more about our compliance, read our response to 3.1 above. We are committed to the accessibility of our educator-facing materials as well and are actively working on a roadmap to document our current compliance and ongoing improvements to reduce and remove exceptions within the educator experience. At Curriculum Associates, we have developed a systematic approach to accessibility that includes: • An internal team of access and equity, curriculum, assessment, policy, and research experts who are dedicated to finding new ways for our educational tools and resources to be used by a diverse range of learners • Guidance and feedback from the school districts and educators we serve • A rigorous review process that involves outside accessibility experts to ensure our thinking and approach reflect established and evolving best practices • Appropriate adherence to the Universal Design for Learning (UDL) framework For a current list of embedded and non-embedded student supports and accommodations, please refer to the *i-Ready Accessibility and Accommodations Update* : https://i-readycentral.com/view-resource/?id=33812.

3.3	Does your solution support the use of commonly available screen readers? If so, please provide information on those screen readers.	Y	*i-Ready Diagnostic* has been tested with JAWS, NVDA, and VoiceOver with specific browser combinations. In most *i-Ready* assessments, screen readers can be used to respond to most items with documented exceptions. In *i-Ready Diagnostic* , *i-Ready Standards Mastery* , and *i-Ready Growth Monitoring* , exceptions include some tech-enhanced item types, and students may require additional assistance when they encounter items with complicated visual stimuli such as graphs and figures. When taking these assessments in Spanish, screen reader users will encounter some screen reader labels and announcements in English. In *i-Ready Standards Mastery* , alt text is now available in the majority of items with images or graphics.

3.4	Does your solution have the ability for HCPS to submit requests for an alteration of the digital content (i.e supporting data, current data, removal of data)? If so, please explain.	N	No *i-Ready* users can alter data on actual assessment results or lesson progress. However, as *i-Ready* is linked to the HCPS system, authorized users can view the record within the SIS and request updates to demographic and related information (not data related to performance). No data beyond what is available via the *i-Ready* system can be added. We track all errors that occur during the sync using an internal tracking system, and our support teams review that data daily and work to remediate any errors. Many errors may be resolved internally within our team, but we will also reach out directly to the District if necessary. Feedback from educators at all levels and perspectives helps us identify areas for refinement, as well as build upon capabilities that work exceptionally well. Data and narrative feedback from these groups, as well as our customer base at large, are collected by our Partner Success Managers and disseminated among the product development teams for further discussion. Enhancements are prioritized according to customer need and added to the product roadmap. In addition to the formal feedback loop through our Partner Success Managers, we facilitate individual user (teachers and administrators only) feedback via a form that is available on the bottom right-side of the screen in *i-Ready Central* (https://i-readycentral.com/). Product Marketing personnel regularly review this customer input.

3.5	Is your firm compliant with all local, state, and federal laws related to student data privacy? If so, please elaborate.	Y	Curriculum Associates adheres to strict standards for student data security and accessibility, including the Family Educational Rights and Privacy Act (FERPA) and the Children's Online Privacy Protection Act (COPPA). All employees with access to student data are required to complete FERPA training, and we maintain a detailed security plan, an overview of which is posted here: https://cdn.i-ready.com/instruction/content/system-check/iReady_Privacy_Policy.pdf ("Data Handling and Privacy Statement"). Our data integration process is FERPA-compliant and never shares student data with unauthorized outside parties. Additionally, Curriculum Associates has signed the Future of Privacy Forum and the Software & Information Industry Association Student Privacy Pledge to safeguard student privacy (http://studentprivacypledge.org/privacy-pledge/). The pledge outlines commitments regarding collection, maintenance, and use of student personal information. Our data security policies and practices are intended to safeguard this sensitive information and assist our customers in complying with applicable laws and regulations.
3.6	Does your solution contain commercial content or serve as a vehicle to market goods and services?	N	We do not use third-party advertising networks or include commercial content. Our data integration process is FERPA-compliant and never shares student data with unauthorized outside parties. Curriculum Associates will not use any customer data to advertise or market to students or parents. We only share customer data with a third-party if authorized to do so in writing by the customer.

	SPECIFIC REQUIREMENTS- APPENDIX A Technical Components		
	Computer, Software, and Network Specifications	Y/N	Response
4.1	Is your solution currently compatible with the following minimum computer specifications, to include maintaining compatibility with updates/ patches/ versions of listed software?	N	See the following responses for detailed information on each specification. *i-Ready* is compatible with all of the following specifications except for item 4.1.7, which calls for touch screen capability. Touch screen–enabled device performance may vary and cannot be listed as tested and approved devices. However, many districts do successfully use *i-Ready* with touchscreen devices. For a full list of system requirements, see *i-Ready Connect System Requirements* in Tab 9 **Appendix K**
	4.11- Windows laptop- software- OS Windows 10, 1909 or higher; Windows 11: 64-bit	Y	*i-Ready Connect* —which provides access to our web-based programs including *i-Ready Assessment* and *i-Ready Personalized Instruction* —is compatible with Windows operating systems, including Windows® 7 SP1, Windows 10 21H2, and Windows 11.
	4.12 Windows laptop- browsers- Google Chrome 103.x or above; Microsoft Edge 103.x or above	Y	*i-Ready Connect* is compatible with modern browsers on a Windows laptop, including Google Chrome 101 or higher, Microsoft Edge 101 or higher, and Firefox 98 or higher.
	4.13 Windows laptop- PDF reader- embedded within Chrome and Edge	Y	For the Windows operating system, Adobe Reader® is ideal, but PDF files in *i-Ready* can be opened with the built-in PDF readers in the Chrome and Edge browsers.
	4.14 O365 Pro plus	Y	O365 is not required or used with *i-Ready. i-Ready* supports Microsoft Active Directory Single Sign-On via Active Directory Federated Services implementing standards-based SAML 2.0. If the District has access to Microsoft Active Directory or another SAML capable bridge, our support team can work with the District to integrate *i-Ready* login with Office 365.

	4.15 Dell laptop- hardware-display 11"-14" depending on model; wireless network connection; hard drive 128-256GB SSD depending on model; memory 8GB	Y	*i-Ready* does not require a specific size monitor and will work on a 11"-14" screen size. *i-Ready Connect* can be accessed via a wireless connection. The minimum memory required to run the program is 4 GB, and the minimum video RAM required is 256 MB.
	4.16 Chromebook - software- Chromium OS 103.x+ or above	Y	*i-Ready Connect* is compatible with modern browsers on a Chromebook laptop, including Chrome 101 or higher.
	4.17 Chromebook- Dell- 3100 touch and non-touch; display 11.6" HD (1366 x 768)	N	**No**: Touch screen–enabled device performance may vary and cannot be listed as tested and approved devices. However, many districts do successfully use *i-Ready* with touchscreen devices. **Yes**: *i-Ready* works with non-touch Chromebook devices. *i-Ready* does not require a specific size monitor and will work on a 11.6" screen size. The minimum video resolution required is 1024 x 768 or greater.
	4.18 Chromebook - Network - built in wireless card	Y	*i-Ready Connect* is accessible wirelessly over the internet. It is also accessible on Chromebook machines.
	4.19 Chromebook- processor- Intel Celeron N4020	Y	*i-Ready* runs on Chromebook devices. The CPU requirement for Chromebook is 1.6 GHz or faster, which appears to align with the specifications for an Intel Celeron N4020 processor.
	4.20 Chromebook- Memory-4GB	Y	*i-Ready* runs on Chromebook devices. The minimum memory requirement for a Chromebook is 2GB or higher.
	4.21 iOS Devices - software= iOS version 15.x; Safari browser	Y	We fully support all iPad models that meet the following criteria: • A8X Chipset or greater • Supports iPadOS 15.1 or greater • Screen resolution: 2048 x 1536 at 264 pixels per inch (ppi) • Screen diagonal of 9.7 inches or greater
	4.22 iOS devices -hardware- displat 9.7" (diagonal) LED backlit, multi-touch with IPS technology; Wireless A, Wireless AC, Wireless B, Wireless G, Wireless N	Y	We fully support all iPad models that meet the following criteria: • A8X Chipset or greater • Supports iPadOS 15.1 or greater • Screen resolution: 2048 x 1536 at 264 pixels per inch (ppi) • Screen diagonal of 9.7 inches or greater

	4.23 Networking environment- district internet bandwidth- 2x Gbps comcase ENI circuits to provide a total district bandwidth of 16 Gbps of internet service to the Data Center which is then distributed to the entire district via the size and type of WAN circuits	Y	For individual users, the minimum amount of bandwidth required to use *i-Ready* is 768Kbps per active user (2Mbps per active user recommended). At the district and site levels, the minimum required bandwidth of 768 Kbps per active user can be multiplied by the estimated total peak simultaneous active users for the total bandwidth required at each. To check a computer's configuration and network health to ensure *i-Ready* will run smoothly, users can access the *i-Ready Configuration Check* utility here: https://cdn.i-ready.com/systemcheck/.
	4.24 Networking environment- firewall protection- Cisco Firepower 9300 serues firewalls	Y	Required firewall exceptions are provided in our system requirements document; see *i-Ready Connect System Requirements* in Tab 9, **Appendix K**
	4.25 Local area network and wireless infrastructure- 1Gbps or 10 Gbps fiber backbone connections between their MDF and IDF's network closets	Y	For individual users, the minimum amount of bandwidth required to use i-Ready is 768Kbps per active user (2Mbps per active user recommended). At the district and site levels, the minimum required bandwidth of 768 Kbps per active user can be multiplied by the estimated total peak simultaneous active users for the total bandwidth required at each. To check a computer's configuration and network health to ensure i-Ready will run smoothly, users can access the *i-Ready Configuration Check* utility here: https://cdn.i-ready.com/systemcheck/.
	4.26 Local Area Network and wireless infrastructure- wireless access points capable of supporting WiFi6 (IEEE 802.11 ax) wireless standard and are connected at 2Gbps, or greater to multi-gig switches	Y	For individual users, the minimum amount of bandwidth required to use i-Ready is 768Kbps per active user (2Mbps per active user recommended). At the district and site levels, the minimum required bandwidth of 768 Kbps per active user can be multiplied by the estimated total peak simultaneous active users for the total bandwidth required at each. To check a computer's configuration and network health to ensure i-Ready will run smoothly, users can access the *i-Ready Configuration Check* utility here: https://cdn.i-ready.com/systemcheck/.

	SPECIFIC REQUIREMENTS- APPENDIX A Technical Components		
	General	Y/N	Response
5.1	Does your solution include the use of subcontractors? If yes, please describe the type of work that will be performed by them.	Y	We use subcontractors to help with limited functions. We work with trusted third-party research partners, use a third-party service provider to host professional development content in an LMS, and contract with a third party to conduct annual security audits. All third-party consultants and contractors with access to such information and data are subject to written non-disclosure agreements or written agreements that contain a confidentiality provision.
5.2	Does your solution include a dedicated account manager for the duration of the contract? If yes, please explain.	Y	The District will have a dedicated Partner Success Manager to provide account management for the duration of the contract. As your primary point of contact, the Partner Success Manager will help lead a successful implementation and help ensure timelines are met; work with educators to ensure they have the resources they need to use our programs to their fullest potential; identify user needs and involve Professional Development Specialists for training as needed; address educators' concerns and partner with customer service/technical support to ensure the timely resolution of any issues; and provide internal product development and technology teams with customer feedback on product improvements.
5.3	Please provide information regarding your solution's percentage reliability uptime.	Y	Excluding planned maintenance, *i-Ready* has a measured availability over the past 12 months of better than 99.99 percent. Our Engineering Project Management Office (PMO) independently tracks uptime to account for planned maintenance and to document downtime, root cause, and corrective action.

5.4	Does your solution include customer training? If yes, please describe.	Y	Our customer training focuses on helping educators implement our programs to raise student achievement. A full suite of onsite and online professional development is available. Our approach to training acknowledges that teachers and administrators grow their understanding *i-Ready* over time, with ongoing support at each step. Thus, we designed our professional development to grow along with the implementation, meeting the increasingly complex learning needs of educators at each phase of their development.
5.5	Does your solution include documentation describing how it provides technical support for current customers? If yes, please describe.	Y	Support documentation is accessible from the Help menu in *i-Ready.* Information provided includes a description of how to reach our technical support team, with the contact information (email address and phone) and the hours that support is available. The Help menu also provides access to self-help tutorials, FAQS, and troubleshooting tips.

5.6	Does your solution include profiles for the personnel that will be assigned to this contract? If yes, please describe.	Y	*i-Ready Partners* delivers planning, service, professional development, and ongoing support to ensure successful implementation. Educators can expect to receive the following from *i-Ready Partners* : * Dedicated Partner Success Managers who work with you to execute an implementation plan to get the most from our products and are your point of connection to a powerful network of experts solely focused on making your implementation successful. * Tailored professional development pathways to address the specific needs of your educators, including facilitated sessions and Online Educator Learning resources designed to move teachers and leaders along the continuum from product to practice. * Detailed student performance and growth analysis at key points in the implementation and on an ongoing basis to empower data-driven practices in classrooms. * Consultation from our experienced Education Consultants in group settings as well as individual consultation with your district to ensure you stay up to date and are prepared to implement education best practices. * Proactive support that anticipates and heads off issues before they start, promptly addresses your concerns, and delivers clear, expert answers to your questions.

Appendix B – *i-Ready* Accessibility and Accommodations Update

i-Ready: Accessibility and Accommodations Update

Curriculum Associates | August 2022

Overview

To make *i-Ready* accessible to the widest population of students, we offer a range of accessibility supports that can also meet the requirements of a number of student accommodations. This accessibility update is designed to provide educators with information about *i-Ready*'s current accessibility supports, insight into our vision, and plans for future enhancements.

Dedicated to Creating Accessible Experiences

At Curriculum Associates, we believe every student has the potential for educational excellence. That's why we're dedicated to creating accessible materials that maximize usability for students with disabilities. We strive to ensure that accessibility and accommodation support considerations are incorporated into our product development process from the very beginning, and we've developed a continuous improvement approach to accessibility that ensures we're always improving and learning.

Always Improving Accessibility

Opportunities and expectations are continually evolving. To meet the needs of the students and districts we serve, we engage in ongoing work to evaluate and improve our educational tools and resources. We have developed a systematic approach to accessibility that includes:

- Web Content Accessibility Guidelines (WCAG) and the Universal Design for Learning (UDL) framework guiding our accessibility efforts
- An internal team of access and equity, curriculum, assessment, policy, and research experts who are dedicated to finding new ways for our educational tools and resources to be used by a diverse range of learners
- A rigorous review process that involves outside accessibility experts to ensure our thinking and approach reflect established and evolving best practices
- Guidance and feedback from the school districts and educators we serve

In addition to the above, we have enlisted the help of student testers to evaluate the effectiveness of our accessibility enhancements. Our commitment to and work toward increased accessibility is ongoing. All of our accessibility efforts and enhancements are offered to educators at no additional cost as part of Curriculum Associates' Software-as-a-Service (SaaS) model.

i-Ready's Accessibility Supports and Accommodations

The table on the following page contains information about accessibility features and support for accommodations in *i-Ready Personalized Instruction*, *i-Ready Personalized Instruction* in Spanish, *i-Ready Diagnostic, i-Ready* Growth Monitoring, *i-Ready Standards Mastery, i-Ready Assessment of Spanish Reading, i-Ready Diagnostic* for Mathematics in Spanish, and *i-Ready* Growth Monitoring for Mathematics in Spanish. Supports and accommodations may not be available across all content areas, grades, and products.

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i-Ready's Accessibility Supports and Accommodations

Universal Supports	Designated Supports	Accommodations
Available to all students, regardless of their disability status or any other type of documented need	Available for use by any student as determined by an educator familiar with the student's characteristics and needs	Available to students in accordance with their IEPs/504 plans
Embedded Embedded universal supports available within the *i-Ready* interface that require no additional configuration: • *Audio support*[1] • *Audio description tracks*[2] • *Keyboard access*[3] • *Calculator*[*] • *Color contrast*[4] • *Closed captioning*[5] • *Digital Math Tools*[6] • *Glossary definitions and Spanish translations for academic vocabulary and key terms*[**] • *Presentation of material for age-appropriate pedagogy and legibility*[7] • *Scaffolded support (lesson-specific, interactive elements)*[**]	**Embedded** Audio support for Diagnostic items for Mathematics for Grades 6+ are available as a designated support as of September 2021. Educators need to enable this feature. To learn more about designated audio support in our Diagnostic, please refer to the Feature Overview: Audio Support. All other traditionally embedded designated supports are available universally to students in *i-Ready*, requiring no further configuration by educators.	**Embedded** At this time, traditionally embedded accommodations are handled through universal and designated supports or through non-embedded accommodations.
Non-embedded Non-embedded universal supports outside of the *i-Ready* interface include: • *Audio amplification* • *English dictionary (when appropriate)* • *Noise buffer (e.g., earmuffs, audio aids)* • *Scratch paper (i.e., blank paper)* • *Thesaurus (when appropriate)*	**Non-embedded** Educators can make the following non-embedded designated supports available to students outside of the *i-Ready* interface: • *Bilingual dictionary* • *Magnification device*[8] • *Native language translation of directions* • *Student reads test aloud.*	**Non-embedded** Non-embedded accommodations are available to students outside the *i-Ready* interface: • *Abacus* • *Alternate response options* • *Calculator* • *Extended time breaks and flexible scheduling* • *Graphic organizer/reference sheet/checklist* • *Human reader* • *Human signer* • *Multiplication table* • *Scribe* • *Screen readers*[9] • *Tactile graphics*[10]

*= *i-Ready Diagnostic* only **= *i-Ready Personalized Instruction* only

[1] **Universal audio support** (i.e., pre-recorded human-voiced audio of text) is currently available in *i-Ready Personalized Instruction* either automatically or on demand by pressing audio buttons to support most of the text on screen across lessons. The Assessment of Spanish Reading includes universal audio support in Phonics items for Grades K–3, Vocabulary items for Grades K–1, Phonological Awareness items for Grades K–1, and Comprehension items for Grade K. In the other *i-Ready* assessments (not including Standards Mastery), audio support is provided for Grades K–5 Mathematics items, Grades K–3 English Language Arts and Vocabulary items, and Grade K Comprehension items.

[2] **Audio description tracks:** Students can enable audio description of what is happening visually in the Diagnostic Introductory Videos for Grades 3–5 by selecting the AD button. This is the first in a series of ongoing releases to add audio descriptions to Diagnostic videos.

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[3] **Keyboard access** is currently available with documented exceptions in *i-Ready* assessments. In *i-Ready Personalized Instruction*, it is available in all Comprehension lessons in Grades K–8, in most Grades 3–5 Phonics and Vocabulary lessons, and in most Grades 3–5 Mathematics lessons. Additional domains and grades will be added on an ongoing basis. Please refer to the Feature Overview: Keyboard Access to learn about relevant exceptions.

[4] **Contrast requirements:** In *i-Ready Assessment*, we are compliant with WCAG 2.0 AA requirements with documented exceptions. All *i-Ready Personalized Instruction* lessons created after July 2019 adhere to WCAG 2.0 AA requirements for contrast. For lessons created before July 2019, we are compliant with WCAG 2.0 AA contrast in many places, but the exceptions have not been extensively documented. For the majority of lessons, global lesson navigation controls (i.e., buttons for backward/forward, pause, settings, and the progress bar) now adhere to WCAG 2.1 AA requirements for contrast.

[5] **Closed captioning** is available on most Diagnostic Interactive Tutorials for Grades K–2, the Diagnostic Introductory Videos for Grades 3+, and in all Diagnostic and Growth Monitoring videos embedded in passages. In *i-Ready Personalized Instruction*, closed captioning is available in English for English lessons and in Spanish for Spanish lessons. 100 percent of My Path lessons for Reading and the vast majority of My Path lessons for Mathematics for Grades K–8 have closed captioning and/or text on screen. A small subset of our older Mathematics lessons for Grades 5–8 has technical constraints to adding closed captioning. We are working to remove and/or replace these lessons by the end of 2022. Additionally, a small percentage of extra lessons (i.e., lessons that can be assigned by teachers but never show in the automated My Path queues) will still have closed-captioning exceptions. To learn more, please refer to the Feature Overview: Closed Captioning.

[6] **Digital Math Tools** are available on specific items or lessons.

[7] **Presentation of material for age-appropriate pedagogy and legibility** includes the use of clear, concise, chronological directions, student-friendly fonts, easily legible formatting, graphic organizers, and pacing/engagement controls such as chunking of texts, and "slow down" timers.

[8] We have not tested the use of third-party built-in operating system **magnification software** extensively for compatibility across browser platform combinations. Educators may find the following documents helpful: For PCs | For Macs® | For iPads® | For Chromebooks™

[9] Beginning in summer 2022, **screen-reader support is available for all Building Reading Comprehension Lessons in English for Grades 3–8**. Please reference additional information about *i-Ready Personalized Instruction* screen-reader support and refreshable braille displays. In most *i-Ready* assessments, screen readers can be used to respond to most items with documented exceptions. In *i-Ready Diagnostic* and *i-Ready* Growth Monitoring, exceptions include some tech-enhanced item types, and students may require additional assistance when they encounter items with complicated visual stimuli such as graphs and figures. When taking these assessments in Spanish, screen-reader users will encounter some screen-reader labels and announcements in English. In *i-Ready Standards Mastery*, exceptions include items with images (alt text will be available as early as fall 2022) and some tech-enhanced item types. More information on screen-reader support in *i-Ready Assessment of Spanish Reading* is coming soon.

[10] There are some instances when a student may request or require a **tactile graphic** to access a test item enhanced by alt text. Because *i-Ready Diagnostic* is a computer-adaptive assessment, notification about the need for a tactile graphic cannot be provided to teachers before the assessment is administered. This guidance brief offers information about how to create tactile graphics on demand.

i-Ready and the WCAG

Your account manager or educational consultant will be happy to provide you with up-to-date information on *i-Ready* and WCAG. Please contact them for details.

i-Ready Assessment: Always Improving

Diagnostic

Our top priority is to design and develop our assessments to be free of characteristics that could interfere with students' test-taking experiences. This is essential not only from the perspective of the student, but also to ensure that educators are provided with validly obtained assessment data to make informed inferences about student performance.[11]

Assessment Item Development Process

Although educators and students are most likely to notice the *i-Ready* accessibility features used during the administration of an assessment, evidence of our commitment to accessibility begins long before students sit down to take the assessment. Specifically, *i-Ready* assessments are built from the ground up to incorporate key characteristics that make the assessments accessible. Our team incorporates industry-standard design principles throughout every step of the assessment development process.

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[11] AERA, APA, & NCME. (2014). *Standards for education and psychological testing*. Washington, DC: American Educational Research Association, American Psychological Association, National Council on Measurement in Education.

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For example, in our test development process, content editors follow meticulous steps to create accessible, non-biased items. All content editors are trained not only on bias and sensitivity guidelines, but also on how bias may be revealed in embedded field testing and data resulting from differential item functioning analysis. This cycle of field testing and review is critical, as it allows content editors to evaluate assessment items for bias at multiple points in the process. Curriculum Associates also enlists the help of experienced teachers to review assessment items. Teachers who support this process have firsthand experience working with diverse student populations and have received training materials on bias and sensitivity guidelines. Finally, we employ a series of cognitive labs to gain a deeper understanding of the cognitive processes students use when responding to assessment items.

Moving Forward

We are committed to ongoing improvements to accessibility features and accommodations across our assessment products, and we will be releasing them on a rolling basis. These efforts include:

- Adding supports to *i-Ready Assessment* to **further enhance usability**. For example, we are working to add embedded designated support/accommodations for audio support in the Diagnostic for Reading where universal audio support is not already available. This is currently targeted for the start of school year 2023–2024. We plan to add reporting that will flag when these embedded designated supports or accommodations have been enabled for specific students. We are also actively working on the ability to turn off audio-dependent domains for students who are deaf or hard of hearing.
- For WCAG criteria that currently have documented exceptions, we will be **reducing and/or removing documented exceptions**. For example, we are adding audio description tracks to our Diagnostic videos. This work began in December 2021 and will continue on a rolling basis.
- We are actively looking into **options for supporting read-aloud accommodations** in *i-Ready Standards Mastery* for students with documented needs.
- **Further usability updates to the Diagnostic** will be informed by our partnership with Perkins Access, other accessibility and UDL advisors, and our internal Usability Testing team. Upcoming work includes exploring compatibility with particular assistive technologies such as refreshable braille displays.

i-Ready Personalized Instruction

Consistent with our approach to *i-Ready Assessment*, we have an ongoing vision for *i-Ready Personalized Instruction* that includes continual evaluation and application of research-based principles. Our focus is on improving our collection of existing lessons and on proactively creating new lessons with accessibility features such as keyboard navigation, closed captioning, and visual design from the get-go.

UDL

The Center for Applied Special Technology defines UDL as a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn. The framework was designed to "change the design of the environment rather than to change the learner," and the curriculum designers of *i-Ready Personalized Instruction* are guided by UDL's key principles of providing students with appropriate options for engagement, representation, action, and expression.[12]

[12]CAST. (2020). *Frequently asked questions*. UDL Guidelines. http://udlguidelines.cast.org/more/frequently-asked-questions.

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Moving Forward

Our goals for enhanced accessibility supports are outlined below. Please note that these are forecasts of future work. Given the extensive level of interactivity, volume and variety of lessons, unique question types, and level of instructional support, accessibility improvements to online lessons are on a multiyear timeline. While we always do our best to present accurate information, the planning and content of our accessibility timeline may be subject to change.

- **Visual design enhancements:** Our design team will continue to apply WCAG visual design requirements (i.e., for minimum contrast and use of color) from the start in all new lesson development, as they have since fall 2019. Additionally, we have updated our global navigation controls (i.e., forward/backward buttons, etc.) to meet WCAG 2.1 criteria for minimum contrast for the majority of lessons.
- **Keyboard access** will expand to additional grades and domains on an ongoing basis.
- As early as December 2022, Building Sentence Comprehension lessons in English for Grades 3–8 will offer screen-reader support. This expanded coverage will provide **screen-reader support** for all Comprehension lessons in English for Grades 3–8.
- A small subset of our older Mathematics lessons for Grades 5–8 has technical constraints to adding **closed captioning** but is being retained in the My Path queue for fall 2022 following feedback from district partners about coverage needs for these domains. We are working to remove and/or replace these lessons by the end of 2022.

In everything we do at Curriculum Associates, our award-winning Educator Success team is at the foundation of our success. If your district has any suggestions or product enhancement ideas for how we can improve our accessibility efforts, we would love to hear from you. Please contact your district's account manager, and they will be happy to forward your ideas to our product team or answer any questions you have about our existing offerings.

For more information about *i-Ready*'s accessibility features and accommodations, including the documented exceptions that apply to some features, please contact your account manager or educational consultant.

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Appendix C - Voluntary Product Accessibility Template (VPAT)

Appendix C - Voluntary Product Accessibility Template (VPAT)

Please see non-redacted version for Voluntary Product Accessibility Template (VPAT).

Appendix D – Correlations of *i-Ready Diagnostic* to Virginia Standards of Learning K–8 Reading and Math

Correlation of English Standards of Learning for Virginia Public Schools to i-Ready Diagnostic

Grade K

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.K.3.a Begin to discriminate between spoken sentences, words, and syllables.	**Add phonemes.** Add individual sounds (phonemes) to spoken one-syllable words to make new words.* **Substitute initial phonemes.** Substitute initial sounds (phonemes) in spoken one-syllable words to make new words.* **Substitute final phonemes.** Substitute final sounds (phonemes) in spoken one-syllable words to make new words.* **Substitute medial phonemes.** Substitute medial vowel sounds (phonemes) in spoken one-syllable words to make new words.*
R.K.3.b Identify . . . words that rhyme.	**Recognize rhyme.** Identify and match rhyming words.
R.K.3.c Blend . . . multisyllabic words at the syllable level.	**Blend syllables.** Blend syllables in spoken two-syllable words.
R.K.3.d . . . [S]egment one-syllable words into phonemes including onset and rime.	**Segment onset and rime.** Segment onset and rime of spoken one-syllable words.
R.K.3.d Blend . . . one-syllable words into phonemes including onset and rime.	**Blend onset and rime.** Blend onset and rime of spoken one-syllable words.
R.K.3.e Identify words according to shared beginning and/or ending sounds.	**Isolate and identify initial sounds.** Isolate initial sounds (phonemes) in spoken three-phoneme CVC words. (This does not include CVC words ending with /l/, /r/, or /x/.)* **Isolate and identify final sounds.** Isolate final sounds (phonemes) in spoken three-phoneme CVC words. (This does not include CVC words ending with /l/, /r/, or /x/.)*

**This skill is related to the aligned standard*

Grade K (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.K.3.f Blend sounds to make one-syllable words.	**Blend onset and rime.** Blend onset and rime of spoken one-syllable words. **Segment onset and rime.** Segment onset and rime of spoken one-syllable words.*
R.K.3.g Segment one-syllable words into individual phonemes.	**Segment onset and rime.** Segment onset and rime of spoken one-syllable words. **Segment syllables.** Segment and/or count syllables in spoken words.*
R.K.4.c Distinguish between print and pictures.	**Connect text and visuals in informational text.** With support, describe the relationship between pictures and the text in which they appear (e.g., what person, place, thing, or idea a picture depicts) in informational text read aloud.* **Connect text and visuals in literary text.** With support, describe the relationship between pictures and the text in which they appear (e.g., what moment in a story a picture depicts) in literary text read aloud.* **Distinguish between text and visuals in informational text.** Differentiate between information provided by pictures and information provided by words in Grade 1 informational text.*
R.K.5.d Read his/her name and commonly used high-frequency words.	**Recognize Grade K high-frequency words.** Read high-frequency words such as the following: *be, for, he, in, is, it, on, that, the, to, was, you.** **Recognize Grade K high-frequency words.** Read high-frequency words such as the following: *and, are, as, at, had, have, his, not, of, they, this, with.**

Grade K (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Recognize Grade K high-frequency words. Read high-frequency words such as the following: *about, all, an, but, by, can, from, her, one, or, she, their, there, we, were, what, when.**
R.K.6.a Identify and name the . . . lowercase letters of the alphabet.	**Understand organization and basic features of print.** Recognize and name all lowercase letters of the alphabet.
R.K.6.a Identify and name the capital . . . letters of the alphabet.	**Understand organization and basic features of print.** Recognize and name all uppercase letters of the alphabet.
R.K.6.b Match . . . short vowel . . . sounds to appropriate letters.	**Match short vowel sounds with common spellings for the five major vowels.** Match short vowel sounds to letters in isolation: short *a* **Match short vowel sounds with common spellings for the five major vowels.** Match short vowel sounds to letters in isolation: short *i* **Match short vowel sounds with common spellings for the five major vowels.** Match short vowel sounds to letters in isolation: short *o* **Match short vowel sounds with common spellings for the five major vowels.** Match short vowel sounds to letters in isolation: short *e* **Match short vowel sounds with common spellings for the five major vowels.** Match short vowel sounds to letters in isolation: short *u*

**This skill is related to the aligned standard*

Grade K (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.K.6.b Match consonant . . . sounds to appropriate letters.	**Demonstrate basic knowledge of one-to-one letter-sound correspondences.** Match consonant sounds to letters in isolation: *s, f, r, m, p, l, t* **Demonstrate basic knowledge of one-to-one letter-sound correspondences.** Match consonant sounds to letters in isolation: *d, n, g, b, h, c* **Demonstrate basic knowledge of one-to-one letter-sound correspondences.** Match consonant sounds to letters in isolation: *v, j, w, x, k, z, y*
R.K.6.d Identify initial consonant sounds in one-syllable words.	**Isolate and identify initial sounds.** Isolate initial sounds (phonemes) in spoken three-phoneme CVC words. (This does not include CVC words ending with /l/, /r/, or /x/.)
R.K.6.e Identify final consonant sounds in one-syllable words.	**Isolate and identify final sounds.** Isolate final sounds (phonemes) in spoken three-phoneme CVC words. (This does not include CVC words ending with /l/, /r/, or /x/.) **Isolate and identify initial sounds.** Isolate initial sounds (phonemes) in spoken three-phoneme CVC words. (This does not include CVC words ending with /l/, /r/, or /x/.)* **Isolate and identify medial sounds.** Isolate medial vowel sounds (phonemes) in spoken three-phoneme CVC words. (This does not include CVC words ending with /l/, /r/, or /x/.)*

**This skill is related to the aligned standard*

Grade K (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.K.7.a Discuss meanings of words.	**Determine word meaning.** With support, understand the meaning of Grade K words and phrases, including academic and/ or domain-specific words, in literary or informational text read aloud.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade K words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.K.7.b Increase vocabulary by listening to a variety of texts read aloud.	**Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade K words used in literary texts, grade-appropriate content areas, and other academic contexts. **Determine word meaning.** With support, understand the meaning of Grade K words and phrases, including academic and/ or domain-specific words, in literary or informational text read aloud.*
R.K.7.c Use vocabulary from other content areas.	**Determine word meaning.** With support, understand the meaning of Grade K words and phrases, including academic and/ or domain-specific words, in literary or informational text read aloud. **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade K words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.K.7.d Ask about words not understood.	**Determine word meaning.** With support, understand the meaning of Grade K words and phrases, including academic and/

**This skill is related to the aligned standard*

Grade K (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	or domain-specific words, in literary or informational text read aloud.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade K words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.K.7.e Use number words.	**Determine word meaning.** With support, understand the meaning of Grade K words and phrases, including academic and/ or domain-specific words, in literary or informational text read aloud.* **Understand word relationships.** Recognize synonyms and antonyms. Sort words into categories and define words by category. Demonstrate understanding of multiple-meaning words and shades of meaning.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade K words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.K.7.f Use nouns to identify and name people, places, and things.	**Determine word meaning.** With support, understand the meaning of Grade K words and phrases, including academic and/ or domain-specific words, in literary or informational text read aloud.* **Understand word relationships.** Recognize synonyms and antonyms. Sort words into categories and define words by category. Demonstrate understanding of multiple-meaning words and shades of meaning.*

**This skill is related to the aligned standard*

Grade K (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Use general academic and domain-specific vocabulary. Demonstrate knowledge of Grade K words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.K.7.g Use adjectives to describe location, size, color, and shape.	**Determine word meaning.** With support, understand the meaning of Grade K words and phrases, including academic and/or domain-specific words, in literary or informational text read aloud.* **Understand word relationships.** Recognize synonyms and antonyms. Sort words into categories and define words by category. Demonstrate understanding of multiple-meaning words and shades of meaning.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade K words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.K.7.h Use verbs to identify actions.	**Determine word meaning.** With support, understand the meaning of Grade K words and phrases, including academic and/or domain-specific words, in literary or informational text read aloud.* **Understand word relationships.** Recognize synonyms and antonyms. Sort words into categories and define words by category. Demonstrate understanding of multiple-meaning words and shades of meaning.*

Grade K (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Use general academic and domain-specific vocabulary. Demonstrate knowledge of Grade K words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.K.8.c Use pictures to make predictions.	**Predict the topic of a book.** Predict the topic of literary or informational text by looking at the front cover, title, and/or illustrations. **Make inferences.** With support, draw conclusions or make inferences in read-aloud literary or informational text or in pictures.*
R.K.8.d . . . [A]nswer questions about what is read.	**Make inferences.** With support, draw conclusions or make inferences in read-aloud literary or informational text or in pictures. **Answer questions about key ideas and details.** With support, demonstrate understanding of key ideas and details shown in pictures or explicitly stated in literary or informational text read aloud.
R.K.8.d Ask and answer questions about what is read.	**Identify cause-and-effect relationships.** With support, identify examples of cause and effect, using pictures or words in literary or informational text read aloud.* **Compare and contrast within an informational text.** With support, compare or contrast individuals, ideas, events, or facts within an informational text read aloud.* **Identify plot elements in literary text.** With support, identify the major events, the

Grade K (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	problem, and the resolution in literary text read aloud.* **Compare and contrast within a literary text.** With support, compare or contrast characters (people, animals) or events within a literary text read aloud.*
R.K.8.e . . . [R]etell stories sequentially using beginning, middle, and end.	**Sequence events in literary text.** With support, sequence pictures of two events or identify the beginning, middle, or end of literary text read aloud.
R.K.8.e Use story elements of characters, settings, and events to retell stories sequentially using beginning, middle, and end.	**Retell literary text.** With support, retell stories read aloud. **Identify plot elements in literary text.** With support, identify the major events, the problem, and the resolution in literary text read aloud.*
R.K.9.a Use pictures to identify topic and make predictions.	**Predict the topic of a book.** Predict the topic of literary or informational text by looking at the front cover, title, and/or illustrations. **Make inferences.** With support, draw conclusions or make inferences in read-aloud literary or informational text or in pictures.* **Answer questions about key ideas and details.** With support, demonstrate understanding of key ideas and details shown in pictures or explicitly stated in literary or informational text read aloud.* **Identify main idea in informational text.** With support, identify the main idea or topic of informational text read aloud.*

Grade K (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.K.9.b Identify text features specific to the topic, such as titles, headings, and pictures.	**Use text features in informational text.** Use headings, tables of contents, glossaries, or other text features to locate key facts or information in Grade 1 informational text.
R.K.9.c . . . [A]nswer questions about what is read.	**Make inferences.** With support, draw conclusions or make inferences in read-aloud literary or informational text or in pictures. **Answer questions about key ideas and details.** With support, demonstrate understanding of key ideas and details shown in pictures or explicitly stated in literary or informational text read aloud.
R.K.9.c Ask and answer questions about what is read.	**Identify cause-and-effect relationships.** With support, identify examples of cause and effect, using pictures or words in literary or informational text read aloud.* **Compare and contrast within an informational text.** With support, compare or contrast individuals, ideas, events, or facts within an informational text read aloud.* **Sequence events in informational text.** With support, sequence three steps in a process or sequence pictures of two events in informational text read aloud.* **Identify main idea in informational text.** With support, identify the main idea or topic of informational text read aloud.* **Retell informational text.** With support, retell key details of informational text read aloud.*

**This skill is related to the aligned standard*

Grade 1

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.1.3.a Create rhyming words.	**Recognize rhyme.** Identify and match rhyming words.*
R.1.3.b Count phonemes (sounds) in one-syllable words.	**Isolate and identify initial sounds.** Identify initial sounds (phonemes) in spoken one-syllable words with three or more phonemes.* **Isolate and identify final sounds.** Identify final sounds (phonemes) in spoken one-syllable words with three or more phonemes.* **Isolate and identify medial sounds.** Identify medial vowel sounds (phonemes) in spoken one-syllable words with three or more phonemes.* **Segment sounds in words with two to three phonemes.** Segment spoken one-syllable words into their complete sequence of individual sounds (two to three phonemes).* **Segment sounds in words with four to five phonemes.** Segment spoken one-syllable words into their complete sequence of individual sounds (four to five phonemes).*
R.1.3.c Blend sounds to make one-syllable words.	**Blend sounds in words with two phonemes.** Blend sounds (phonemes) to identify spoken one-syllable words with two phonemes. **Blend sounds in words with three phonemes.** Blend sounds (phonemes) to identify spoken one-syllable words with three phonemes.

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Blend sounds in words with four to five phonemes. Blend sounds (phonemes), including consonant blends, to identify spoken one-syllable words with four to five phonemes.
R.1.3.d Segment one-syllable words into individual phonemes.	**Segment sounds in words with two to three phonemes.** Segment spoken one-syllable words into their complete sequence of individual sounds (two to three phonemes). **Segment sounds in words with four to five phonemes.** Segment spoken one-syllable words into their complete sequence of individual sounds (four to five phonemes).
R.1.3.e . . . [D]elete phonemes to make new words.	**Delete phonemes.** Delete individual sounds (phonemes) in spoken one-syllable words to make new words.
R.1.3.f Blend and segment multisyllabic words at the syllable level.	**Decode two-syllable words.** Decode two-syllable words following a VC/CV pattern.*
R.1.5.a Use . . . final consonants to decode and spell one-syllable words.	**Decode regularly spelled one-syllable words with final double consonants or *ck*.** Decode words beginning with an initial continuous sound and ending with either a final double consonant or *ck:* VCC *(egg)* and CVCC *(fill, rock).* **Decode regularly spelled one-syllable words with final consonant blends.** Decode CVCC words beginning with an initial stop sound and ending with a blend, such as *task* or *bent.*
R.1.5.a Use initial . . . consonants to decode and spell one-syllable words.	**Decode regularly spelled one-syllable words with initial consonant blends.**

**This skill is related to the aligned standard*

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Decode CCVC words beginning with *l*-blends or *r*-blends, such as *plug* or *drip*. **Decode regularly spelled one-syllable words with initial consonant blends.** Decode words beginning with two- or three-letter *s*-blends: CCVCC *(snack)*, CCCVC *(sprig)*, and CCCVCC *(stress)*.
R.1.5.a Use initial and final consonants to decode and spell one-syllable words.	**Demonstrate basic knowledge of sound-spelling correspondences for common initial consonant digraphs.** Match spoken and written consonant digraphs *(th, sh, ch, wh)* at the beginning of a word.* **Demonstrate basic knowledge of sound-spelling correspondences for common final consonant digraphs.** Match spoken and written consonant digraphs *(th, sh, ch, ck, ng)* at the end of a word.*
R.1.5.b Use two-letter consonant blends to decode . . . one-syllable words.	**Decode regularly spelled one-syllable words with initial consonant blends.** Decode CCVC words beginning with *l*-blends or *r*-blends, such as *plug* or *drip*. **Decode regularly spelled one-syllable words with initial consonant blends.** Decode words beginning with two- or three-letter *s*-blends: CCVCC *(snack)*, CCCVC *(sprig)*, and CCCVCC *(stress)*. **Decode regularly spelled one-syllable words with final double consonants or *ck*.** Decode words beginning with an initial continuous sound and ending with either a final double consonant or *ck:* VCC *(egg)* and CVCC *(fill, rock)*.

**This skill is related to the aligned standard*

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Decode regularly spelled one-syllable words with final consonant blends. Decode CVCC words beginning with an initial stop sound and ending with a blend, such as *task* or *bent.*
R.1.5.c Use consonant digraphs to decode . . . one-syllable words.	**Demonstrate basic knowledge of sound-spelling correspondences for common initial consonant digraphs.** Match spoken and written consonant digraphs *(th, sh, ch, wh)* at the beginning of a word.
R.1.5.d Use short vowel sounds to decode . . . one-syllable words.	**Decode regularly spelled one-syllable words with short vowels.** Decode simple VC and CVC words with short *i* or short *o.* **Decode regularly spelled one-syllable words with short vowels.** Decode simple VC and CVC words with short *u* or short *e.*
R.1.5.e Blend initial, medial, and final sounds to recognize and read words.	**Decode regularly spelled one-syllable words with initial consonant blends.** Decode CCVC words beginning with *l*-blends or *r*-blends, such as *plug* or *drip.** **Decode regularly spelled one-syllable words with initial consonant blends.** Decode words beginning with two- or three-letter *s*-blends: CCVCC *(snack)*, CCCVC *(sprig)*, and CCCVCC *(stress).** **Decode regularly spelled one-syllable words with final double consonants or *ck.*** Decode words beginning with an initial continuous sound and ending with either a final double consonant or *ck:* VCC *(egg)* and CVCC *(fill, rock).** **Decode regularly spelled one-syllable words with final consonant blends.**

**This skill is related to the aligned standard*

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Decode CVCC words beginning with an initial stop sound and ending with a blend, such as *task* or *bent.**
	Demonstrate basic knowledge of sound-spelling correspondences for common initial consonant digraphs. Match spoken and written consonant digraphs *(th, sh, ch, wh)* at the beginning of a word.*
	Demonstrate basic knowledge of sound-spelling correspondences for common final consonant digraphs. Match spoken and written consonant digraphs *(th, sh, ch, ck, ng)* at the end of a word.*
	Decode regularly spelled one-syllable words with final *-e*. Decode words with final *-e* conventions.*
	Demonstrate basic knowledge of final *-e* conventions. Identify the long vowel sound within one-syllable CVCe words.*
	Decode regularly spelled one-syllable words with common long-vowel teams. Decode words with long-vowel digraphs and other long-vowel teams: *ai, ay, ee, ea, oa; igh, ow (grow).**
	Decode regularly spelled one-syllable words with *r*-controlled vowels. Decode words with *r*-controlled vowels *(ar, er, ir, or, ur).**
	Decode words with inflectional endings and no spelling changes. Decode words with common inflectional endings, such as

**This skill is related to the aligned standard*

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	-s, -es, -ed, -ing, that don't include spelling changes.* **Decode two-syllable words.** Decode two-syllable words following a VC/CV pattern.*
R.1.5.f Use word patterns to decode unfamiliar words.	**Decode regularly spelled one-syllable words with initial consonant blends.** Decode CCVC words beginning with *l*-blends or *r*-blends, such as *plug* or *drip.** **Decode regularly spelled one-syllable words with initial consonant blends.** Decode words beginning with two- or three-letter *s*-blends: CCVCC *(snack),* CCCVC *(sprig),* and CCCVCC *(stress).** **Decode regularly spelled one-syllable words with final double consonants or *ck.*** Decode words beginning with an initial continuous sound and ending with either a final double consonant or *ck:* VCC *(egg)* and CVCC *(fill, rock).** **Decode regularly spelled one-syllable words with final consonant blends.** Decode CVCC words beginning with an initial stop sound and ending with a blend, such as *task* or *bent.** **Demonstrate basic knowledge of sound-spelling correspondences for common initial consonant digraphs.** Match spoken and written consonant digraphs *(th, sh, ch, wh)* at the beginning of a word.* **Demonstrate basic knowledge of sound-spelling correspondences for common**

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	final consonant digraphs. Match spoken and written consonant digraphs *(th, sh, ch, ck, ng)* at the end of a word.* **Decode regularly spelled one-syllable words with final *-e*.** Decode words with final *-e* conventions.* **Demonstrate basic knowledge of final *-e* conventions.** Identify the long vowel sound within one-syllable CVCe words.* **Decode regularly spelled one-syllable words with common long-vowel teams.** Decode words with long-vowel digraphs and other long-vowel teams: *ai, ay, ee, ea, oa; igh, ow (grow).** **Decode words with inflectional endings and no spelling changes.** Decode words with common inflectional endings, such as *-s, -es, -ed, -ing,* that don't include spelling changes.* **Decode two-syllable words.** Decode two-syllable words following a VC/CV pattern.*
R.1.5.g Read and spell simple two-syllable compound words.	**Divide compound words.** Divide common compound words into separate base words.*
R.1.5.h Read . . . commonly used sight words.	**Recognize Grade 1 high-frequency words.** Read high-frequency words, including common irregularly spelled words, such as the following: *been, big, do, if, into, like, man, many, more, no, other, out, people, run, said, say, so, some, take, them, then, these, time, up, which, who, will, would, your.*

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Recognize Grade 1 high-frequency words. Read high-frequency words, including common irregularly spelled words, such as the following: *also, am, could, first, has, him, how, its, made, make, may, most, my, new, only, over, play, ran, saw, see, than, two, very, want, way.* **Recognize Grade 1 high-frequency words.** Read high-frequency words, including common irregularly spelled words, such as the following: *after, back, because, boy, call, called, did, down, each, even, get, give, just, know, little, much, must, now, our, such, through, water, where, white.*
R.1.6.a Use words, phrases, and sentences.	**Use prefixes, suffixes, and base words.** Understand and use meaningful word parts, including prefixes (such as, but not limited to, *un-, re-);* suffixes (such as, but not limited to, *-er, -est, -ily, -ly, -y);* inflectional endings (including *-s, -es, -ed, -ing);* and base words. Identify compound words.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 1 words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.1.6.b Use titles and pictures.	**Connect text and visuals in informational text.** Use details from illustrations and from text to describe the key ideas in Grade 1 informational text. **Distinguish between text and visuals in informational text.** Differentiate between information provided by pictures and

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	information provided by words in Grade 1 informational text.*
R.1.6.d Use knowledge of sentence structure.	**Connect text and visuals in informational text.** Use details from illustrations and from text to describe the key ideas in Grade 1 informational text. **Distinguish between text and visuals in informational text.** Differentiate between information provided by pictures and information provided by words in Grade 1 informational text.*
R.1.7.a Discuss meanings of words in context.	**Use prefixes, suffixes, and base words.** Understand and use meaningful word parts, including prefixes (such as, but not limited to, *un-, re-);* suffixes (such as, but not limited to, *-er, -est, -ily, -ly, -y);* inflectional endings (including *-s, -es, -ed, -ing);* and base words. Identify compound words.* **Understand word relationships.** Recognize synonyms and antonyms. Sort words into categories, define words by category, and identify real-life connections between words. Demonstrate understanding of multiple-meaning words and shades of meaning.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 1 words used in literary texts, grade-appropriate content areas, and other academic contexts.* **Determine word meaning in informational text.** Understand the meaning of words and phrases in Grade 1

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	informational text, including academic and/or domain-specific words.* **Determine word meaning in literary text.** Understand the meaning of words and phrases in Grade 1 literary text that suggest feelings or appeal to the senses.*
R.1.7.b Develop vocabulary by listening to and reading a variety of texts.	**Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 1 words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.1.7.c Ask for the meaning of unknown words and make connections to familiar words.	**Understand word relationships.** Recognize synonyms and antonyms. Sort words into categories, define words by category, and identify real-life connections between words. Demonstrate understanding of multiple-meaning words and shades of meaning.*
R.1.7.d Use text clues such as words or pictures to discern meanings of unknown words.	**Use prefixes, suffixes, and base words.** Understand and use meaningful word parts, including prefixes (such as, but not limited to, *un-, re-);* suffixes (such as, but not limited to, *-er, -est, -ily, -ly, -y);* inflectional endings (including *-s, -es, -ed, -ing);* and base words. Identify compound words.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 1 words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.1.7.e Use vocabulary from other content areas.	**Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 1 words used in literary texts, grade-appropriate content areas, and other academic contexts.

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.1.7.g Use adjectives to describe nouns.	**Understand word relationships.** Recognize synonyms and antonyms. Identify real-life connections between words. Demonstrate understanding of homophones, multiple-meaning words, and shades of meaning.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 2 words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.1.7.h Use verbs to identify actions.	**Understand word relationships.** Recognize synonyms and antonyms. Sort words into categories, define words by category, and identify real-life connections between words. Demonstrate understanding of multiple-meaning words and shades of meaning.*
R.1.8.b Use a picture dictionary to find meanings of unfamiliar words.	**Use text features in informational text.** Use captions, bold print, headings, glossaries, indexes, or other text features to locate key facts or information in Grade 2 informational text.*
R.1.9.d Make and confirm predictions.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 1 literary or informational text.*
R.1.9.e . . . [A]nswer who, what, when, where, why, and how questions about what is read.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 1 literary or informational text. **Answer questions about key ideas and details.** Demonstrate understanding of key ideas and details explicitly stated in Grade 1 literary or informational text.

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.1.9.e Ask and answer who, what, when, where, why, and how questions about what is read.	**Identify cause-and-effect relationships.** Identify cause-and-effect relationships in Grade 1 literary or informational text.* **Identify sequence of events.** Identify the sequence of events (beginning, middle, end) in Grade 1 literary or informational text.* **Compare and contrast within a literary text.** Compare or contrast key details about characters and/or events within a Grade 1 literary text.* **Describe plot elements in literary text.** Identify or describe the major events, the problem, and the resolution in Grade 1 literary text, using key details.* **Retell literary text.** Retell what happens at the beginning, middle, or end in Grade 1 literary text.* **Describe characters in literary text.** Identify or describe characters and the reasons for their actions, using key details in Grade 1 literary text.* **Connect text and visuals in literary text.** Use details from illustrations and from text to describe the characters, setting, or events in Grade 1 literary text.*
R.1.9.f Identify . . . important events.	**Identify sequence of events.** Identify the sequence of events (beginning, middle, end) in Grade 1 literary or informational text.

**This skill is related to the aligned standard*

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Retell literary text. Retell what happens at the beginning, middle, or end in Grade 1 literary text.
R.1.9.f Identify . . . setting and important events.	**Describe plot elements in literary text.** Identify or describe the major events, the problem, and the resolution in Grade 1 literary text, using key details.
R.1.9.f Identify characters . . .	**Describe characters in literary text.** Identify or describe characters and the reasons for their actions, using key details in Grade 1 literary text.
R.1.9.f Identify characters, setting, and important events.	**Connect text and visuals in literary text.** Use details from illustrations and from text to describe the characters, setting, or events in Grade 1 literary text.*
R.1.9.g Retell stories and events, using beginning, middle, and end in a sequential order.	**Retell literary text.** Retell what happens at the beginning, middle, or end in Grade 1 literary text. **Identify sequence of events.** Identify the sequence of events (beginning, middle, end) in Grade 1 literary or informational text.* **Describe plot elements in literary text.** Identify or describe the major events, the problem, and the resolution in Grade 1 literary text, using key details.* **Connect text and visuals in literary text.** Use details from illustrations and from text to describe the characters, setting, or events in Grade 1 literary text.*
R.1.9.h Identify theme.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 1 literary or informational text.*

**This skill is related to the aligned standard*

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Answer questions about key ideas and details. Demonstrate understanding of key ideas and details explicitly stated in Grade 1 literary or informational text.*
R.1.10.d Identify text features such as pictures, headings, charts, and captions.	**Use text features in informational text.** Use headings, tables of contents, glossaries, or other text features to locate key facts or information in Grade 1 informational text.* **Distinguish between text and visuals in informational text.** Differentiate between information provided by pictures and information provided by words in Grade 1 informational text.*
R.1.10.e Make and confirm predictions.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 1 literary or informational text.*
R.1.10.f . . . [A]nswer who, what, where, when, why, and how questions about what is read.	**Answer questions about key ideas and details.** Demonstrate understanding of key ideas and details explicitly stated in Grade 1 literary or informational text.
R.1.10.f Ask and answer who, what, where, when, why, and how questions about what is read.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 1 literary or informational text.* **Identify cause-and-effect relationships.** Identify cause-and-effect relationships in Grade 1 literary or informational text.* **Identify sequence of events.** Identify the sequence of events (beginning, middle, end) in Grade 1 literary or informational text.* **Categorize and classify information in informational text.** Categorize or classify

Grade 1 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	individuals, ideas, events, or facts in Grade 1 informational text.* **Compare and contrast within an informational text.** Compare or contrast key details about people and/or events within a Grade 1 informational text.* **Retell informational text.** Retell the most important ideas and details in Grade 1 informational text.* **Connect text and visuals in informational text.** Use details from illustrations and from text to describe the key ideas in Grade 1 informational text.*
R.1.10.g Identify the main idea.	**Identify main idea in informational text.** Identify the main idea or topic in Grade 1 informational text.

**This skill is related to the aligned standard*

Grade 2

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.2.3.a Count phonemes within one-syllable words.	**Isolate and identify initial sounds.** Identify initial sounds (phonemes) in spoken one-syllable words with three or more phonemes.* **Isolate and identify final sounds.** Identify final sounds (phonemes) in spoken one-syllable words with three or more phonemes.* **Isolate and identify medial sounds.** Identify medial vowel sounds (phonemes) in spoken one-syllable words with three or more phonemes.*
R.2.3.b Blend sounds to make one-syllable words.	**Blend sounds in words with two phonemes.** Blend sounds (phonemes) to identify spoken one-syllable words with two phonemes. **Blend sounds in words with three phonemes.** Blend sounds (phonemes) to identify spoken one-syllable words with three phonemes. **Blend sounds in words with four to five phonemes.** Blend sounds (phonemes), including consonant blends, to identify spoken one-syllable words with four to five phonemes.
R.2.3.c Segment one-syllable words into phonemes.	**Segment sounds in words with two to three phonemes.** Segment spoken one-syllable words into their complete sequence of individual sounds (two to three phonemes). **Segment sounds in words with four to five phonemes.** Segment spoken

**This skill is related to the aligned standard*

Grade 2 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	one-syllable words into their complete sequence of individual sounds (four to five phonemes).
R.2.3.d . . . [D]elete phonemes to make words.	**Delete phonemes.** Delete individual sounds (phonemes) in spoken one-syllable words to make new words.
R.2.3.e Blend and segment multisyllabic words at the syllable level.	**Decode multisyllabic words.** Decode common three- and four-syllable words.* **Decode multisyllabic words.** Decode five-syllable words and less common three- and four-syllable words.* **Segment sounds in words with two to three phonemes.** Segment spoken one-syllable words into their complete sequence of individual sounds (two to three phonemes).* **Segment sounds in words with four to five phonemes.** Segment spoken one-syllable words into their complete sequence of individual sounds (four to five phonemes).* **Blend sounds in words with two phonemes.** Blend sounds (phonemes) to identify spoken one-syllable words with two phonemes.* **Blend sounds in words with three phonemes.** Blend sounds (phonemes) to identify spoken one-syllable words with three phonemes.* **Blend sounds in words with four to five phonemes.** Blend sounds (phonemes),

Grade 2 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	including consonant blends, to identify spoken one-syllable words with four to five phonemes.*
R.2.4.a Use knowledge of . . . consonant digraphs to decode . . . words.	**Demonstrate basic knowledge of sound-spelling correspondences for common initial consonant digraphs.** Match spoken and written consonant digraphs *(th, sh, ch, wh)* at the beginning of a word. **Demonstrate basic knowledge of sound-spelling correspondences for common final consonant digraphs.** Match spoken and written consonant digraphs *(th, sh, ch, ck, ng)* at the end of a word.
R.2.4.a Use knowledge of consonants, consonant blends, and consonant digraphs to decode and spell words.	**Decode regularly spelled one-syllable words with initial consonant blends.** Decode CCVC words beginning with *l*-blends or *r*-blends, such as *plug* or *drip.** **Decode regularly spelled one-syllable words with initial consonant blends.** Decode words beginning with two- or three-letter *s*-blends: CCVCC *(snack)*, CCCVC *(sprig)*, and CCCVCC *(stress).** **Decode regularly spelled one-syllable words with final double consonants or *ck*.** Decode words beginning with an initial continuous sound and ending with either a final double consonant or *ck:* VCC *(egg)* and CVCC *(fill, rock).** **Decode regularly spelled one-syllable words with final consonant blends.** Decode CVCC words beginning with an initial stop sound and ending with a blend, such as *task* or *bent.**

**This skill is related to the aligned standard*

Grade 2 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.2.4.b Use knowledge of . . . long . . . vowel patterns to decode and spell words.	**Decode two-syllable words with long vowels.** Decode regularly spelled two-syllable words with long vowels: open syllables, vowel team syllables, CVCe syllables.
R.2.4.b Use knowledge of short . . . vowel patterns to decode . . . words.	**Decode two-syllable words with short vowels.** Decode two-syllable short vowel words following VC/CV, VCCCV, or VC/V patterns.
R.2.4.b Use knowledge of short [and] long . . . vowel patterns to decode . . . words.	**Distinguish long and short vowels.** Distinguish long and short vowels when reading regularly spelled one-syllable words.
R.2.4.b Use knowledge of short, long, and r-controlled vowel patterns to decode and spell words.	**Decode regulary spelled one- and two-syllable words with common vowel teams.** Decode words with digraphs, diphthongs, and other vowel teams: *oo (moon), oo (foot), ie (piece); ou (out), ow (cow), oy (boy), oi (oil); ew (blew), ew (few), aw (law), au (author), ou (young).**
R.2.4.c Decode regular multisyllabic words.	**Decode multisyllabic words.** Decode common three- and four-syllable words. **Decode multisyllabic words with prefixes and suffixes.** Decode multisyllabic words with common prefixes and suffixes.*
R.2.5.a Use information and context clues in the story to read words.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 2 literary or informational text, including academic and/or domain-specific words. **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 2 words used in literary texts, grade-appropriate content areas, and other academic contexts.

**This skill is related to the aligned standard*

Grade 2 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Understand word relationships. Recognize synonyms and antonyms. Identify real-life connections between words. Demonstrate understanding of homophones, multiple-meaning words, and shades of meaning.*
R.2.6.a Use knowledge of homophones.	**Understand word relationships.** Recognize synonyms and antonyms. Identify real-life connections between words. Demonstrate understanding of homophones, multiple-meaning words, and shades of meaning.*
R.2.6.b Use knowledge of prefixes and suffixes.	**Use prefixes, suffixes, and base words.** Understand and use meaningful word parts, including prefixes (such as, but not limited to, *un-, re-, pre-);* suffixes (such as, but not limited to, *-tion, -sion, -ion, -or/er, -ful, -less);* and base words. Identify compound words and their meanings.*
R.2.6.c Use knowledge of antonyms and synonyms.	**Understand word relationships.** Recognize synonyms and antonyms. Identify real-life connections between words. Demonstrate understanding of homophones, multiple-meaning words, and shades of meaning.*
R.2.6.d Discuss meanings of words and develop vocabulary by listening to and reading a variety of texts.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 2 literary or informational text, including academic and/or domain-specific words.* **Understand word relationships.** Recognize synonyms and antonyms. Identify real-life connections between words. Demonstrate understanding of homophones, multiple-meaning words, and shades of meaning.*

**This skill is related to the aligned standard*

Grade 2 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Use general academic and domain-specific vocabulary. Demonstrate knowledge of Grade 2 words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.2.6.e Use word-reference materials including dictionaries, glossaries and indices.	**Use text features in informational text.** Use captions, bold print, headings, glossaries, indexes, or other text features to locate key facts or information in Grade 2 informational text.*
R.2.6.f Use vocabulary from other content areas.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 2 literary or informational text, including academic and/or domain-specific words. **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 2 words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.2.7.a Make and confirm predictions.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 2 literary or informational text.*
R.2.7.c . . . [A]nswer questions using the text for support.	**Answer questions about key ideas and details.** Answer such questions as *who, what, where, when, why,* and *how* to demonstrate understanding of key details in Grade 2 literary or informational text.
R.2.7.c Ask and answer questions using the text for support.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 2 literary or informational text.* **Identify cause-and-effect relationships.** Identify cause-and-effect relationships in Grade 2 literary or informational text.*

**This skill is related to the aligned standard*

Grade 2 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Identify sequence of events. Identify sequence of events in Grade 2 literary or informational text.* **Describe plot elements in literary text.** Identify or describe the major events, the problem, and the resolution in Grade 2 literary text, using key details.* **Retell literary text.** Retell and/or summarize a story, poem, or other Grade 2 literary text.* **Describe characters in literary text.** Describe how characters in a story respond to major events and challenges in Grade 2 literary text.* **Connect text and visuals in literary text.** Use details from illustrations and from text to describe the characters, setting, or events in Grade 2 literary text.*
R.2.7.d Describe . . . plot events in fiction and poetry.	**Retell literary text.** Retell and/or summarize a story, poem, or other Grade 2 literary text.
R.2.7.d Describe characters . . . and plot events in fiction and poetry.	**Describe characters in literary text.** Describe how characters in a story respond to major events and challenges in Grade 2 literary text.
R.2.7.d Describe characters, setting, and plot events in fiction and poetry.	**Describe plot elements in literary text.** Identify or describe the major events, the problem, and the resolution in Grade 2 literary text, using key details.

**This skill is related to the aligned standard*

Grade 2 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Identify sequence of events. Identify sequence of events in Grade 2 literary or informational text.* **Connect text and visuals in literary text.** Use details from illustrations and from text to describe the characters, setting, or events in Grade 2 literary text.* **Compare and contrast within a literary text.** Compare or contrast key details about characters, settings, and/or events within a Grade 2 literary text.*
R.2.7.f Identify the theme.	**Identify sequence of events.** Identify sequence of events in Grade 2 literary or informational text.* **Determine the message, lesson, or moral in literary text.** Determine the central message, lesson, or moral in Grade 2 literary text.* **Retell literary text.** Retell and/or summarize a story, poem, or other Grade 2 literary text.*
R.2.7.g Summarize stories and events with beginning, middle, and end in the correct sequence.	**Retell literary text.** Retell and/or summarize a story, poem, or other Grade 2 literary text. **Identify sequence of events.** Identify sequence of events in Grade 2 literary or informational text.* **Describe plot elements in literary text.** Identify or describe the major events, the problem, and the resolution in Grade 2 literary text, using key details.*

**This skill is related to the aligned standard*

Grade 2 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Describe structure in literary text. Describe the overall structure in Grade 2 literary text, including how the beginning introduces the story and the ending concludes the action.*
R.2.7.h Draw conclusions based on the text.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 2 literary or informational text.
R.2.8.a Preview the selection using text features including table of contents, headings, pictures, captions, and maps.	**Use text features in informational text.** Use captions, bold print, headings, glossaries, indexes, or other text features to locate key facts or information in Grade 2 informational text. **Connect text and visuals in informational text.** Describe how images contribute to and clarify Grade 2 informational text.*
R.2.8.b Make and confirm predictions.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 2 literary or informational text.*
R.2.8.e . . . [A]nswer questions using the text as support.	**Answer questions about key ideas and details.** Answer such questions as *who, what, where, when, why,* and *how* to demonstrate understanding of key details in Grade 2 literary or informational text.
R.2.8.e Ask and answer questions using the text as support.	**Identify cause-and-effect relationships.** Identify cause-and-effect relationships in Grade 2 literary or informational text.* **Identify sequence of events.** Identify sequence of events in Grade 2 literary or informational text.*

**This skill is related to the aligned standard*

Grade 2 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Retell informational text. Retell and/or summarize the most important ideas and details in Grade 2 informational text.* **Determine main idea and key details in informational text.** Identify the main topic, the main idea, and/or key details in Grade 2 informational text. Identify the focus of specific paragraphs within the text.*
R.2.8.f Identify the main idea.	**Retell informational text.** Retell and/or summarize the most important ideas and details in Grade 2 informational text.* **Determine main idea and key details in informational text.** Identify the main topic, the main idea, and/or key details in Grade 2 informational text. Identify the focus of specific paragraphs within the text.*

Grade 3

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.3.3.a Use knowledge of regular and irregular vowel patterns.	**Decode multisyllabic words.** Decode five-syllable words and less common three- and four-syllable words.* **Decode multisyllabic words with difficult letter-sound correspondences.** Decode multisyllabic words with difficult vowel + /r/ sounds.* **Decode multisyllabic words with schwa sounds.** Decode multisyllabic words with schwa + *l* or schwa + *n* sounds.* **Decode multisyllabic words with a VV pattern.** Distinguish vowel pairs *(thief* vs. *science)* in order to decode multisyllabic words following a VV pattern.*
R.3.3.b Decode regular multisyllabic words.	**Decode multisyllabic words.** Decode common three- and four-syllable words. **Decode multisyllabic words.** Decode five-syllable words and less common three- and four-syllable words. **Identify syllable sounds.** Identify syllable sounds in multisyllabic words.* **Decode multisyllabic words with difficult letter-sound correspondences.** Decode multisyllabic words with difficult vowel + /r/ sounds.* **Decode multisyllabic words with schwa sounds.** Decode multisyllabic words with schwa + *l* or schwa + *n* sounds.*
R.3.4.a Use knowledge of homophones.	**Understand word relationships.** Recognize synonyms and antonyms.

Grade 3 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Identify real-life connections between words. Demonstrate understanding of homophones, words and phrases with nonliteral meanings, multiple-meaning words, and shades of meaning.*
R.3.4.b Use knowledge of roots [and] affixes . . . to determine the meaning of new words.	**Use prefixes, suffixes, word roots, and base words.** Use common, grade-appropriate prefixes (such as, but not limited to, *in-, im-, en-, em-, non-, mid-, mis-, dis-);* suffixes (such as, but not limited to, *-ful, -less, -ness, -ment, -able, -ible, -ous);* word roots (such as, but not limited to, *bio, geo);* and base words to determine the meaning of words and phrases.
R.3.4.b Use knowledge of roots, affixes, synonyms, and antonyms to determine the meaning of new words.	**Understand word relationships.** Recognize synonyms and antonyms. Identify real-life connections between words. Demonstrate understanding of homophones, words and phrases with nonliteral meanings, multiple-meaning words, and shades of meaning.*
R.3.4.c Apply meaning clues [and] language structure . . . to determine the meaning of new words.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 3 literary or informational text, including academic and/or domain-specific words. **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 3 words used in literary texts, grade-level-appropriate content areas, and other academic contexts.
R.3.4.c Apply meaning clues, language structure, and phonetic strategies to determine the meaning of new words.	**Understand word relationships.** Recognize synonyms and antonyms. Identify real-life connections between words. Demonstrate understanding of homophones, words and phrases with nonliteral meanings, multiple-meaning words, and shades of meaning.*

**This skill is related to the aligned standard*

Grade 3 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.3.4.d Use context to clarify meaning of unfamiliar words.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 3 literary or informational text, including academic and/or domain-specific words.* **Understand word relationships.** Recognize synonyms and antonyms. Identify real-life connections between words. Demonstrate understanding of homophones, words and phrases with nonliteral meanings, multiple-meaning words, and shades of meaning.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 3 words used in literary texts, grade-level-appropriate content areas, and other academic contexts.*
R.3.4.e Discuss meanings of words and develop vocabulary by listening to and reading a variety of texts.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 3 literary or informational text, including academic and/or domain-specific words.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 3 words used in literary texts, grade-level-appropriate content areas, and other academic contexts.*
R.3.4.f Use vocabulary from other content areas.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 3 literary or informational text, including academic and/or domain-specific words. **Use general academic and domain-specific vocabulary.** Demonstrate

Grade 3 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	knowledge of Grade 3 words used in literary texts, grade-level-appropriate content areas, and other academic contexts.*
R.3.4.g Use word-reference resources including the glossary, dictionary, and thesaurus.	**Use text features in informational text.** Use captions, bold print, headings, glossaries, indexes, or other text features to locate key facts or information in Grade 2 informational text.*
R.3.5.b Make connections between reading selections.	**Compare story elements and themes in two literary texts.** Compare the settings, plots, and themes of two Grade 3 literary texts that contain the same or similar characters. **Identify sequence of events.** Identify sequence of events in Grade 3 literary or informational text.* **Describe plot elements in literary text.** Identify or describe plot elements, including main events, problem, and resolution, in Grade 3 literary text.* **Determine the message, lesson, or moral in literary text.** Determine the central message, lesson, or moral in Grade 3 literary text and identify how it is conveyed through key details.* **Describe characters in literary text.** Identify or infer characters' traits in Grade 3 literary text, based on what they say, what they do, or how they feel. Determine how their actions contribute to the sequence of events.*

Grade 3 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Compare and contrast within a literary text. Compare or contrast key details about characters, settings, or events within a Grade 3 literary text. *
R.3.5.c Make, confirm, and revise predictions.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 3 literary or informational text.*
R.3.5.d Compare and contrast settings, characters, and plot events.	**Compare and contrast within a literary text.** Compare or contrast key details about characters, settings, or events within a Grade 3 literary text. **Identify sequence of events.** Identify sequence of events in Grade 3 literary or informational text.* **Describe plot elements in literary text.** Identify or describe plot elements, including main events, problem, and resolution, in Grade 3 literary text.* **Describe characters in literary text.** Identify or infer characters' traits in Grade 3 literary text, based on what they say, what they do, or how they feel. Determine how their actions contribute to the sequence of events.*
R.3.5.e Summarize plot events.	**Retell literary text.** Retell and/or summarize a story, poem, or other Grade 3 literary text.
R.3.5.f Identify the narrator of a story.	**Identify point of view in literary text.** Identify the point of view of a narrator or a character in Grade 3 literary text. Distinguish a narrator's or character's point of view from one's own point of view as a reader.*

**This skill is related to the aligned standard*

Grade 3 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.3.5.g . . . [A]nswer questions about what is read.	**Answer questions about key ideas and details.** Answer questions to demonstrate understanding of key ideas and details in Grade 3 literary or informational text, referring explicitly to the text as the basis for the answers.
R.3.5.g Ask and answer questions about what is read.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 3 literary or informational text.* **Identify cause-and-effect relationships.** Identify cause-and-effect relationships in Grade 3 literary or informational text.* **Identify sequence of events.** Identify sequence of events in Grade 3 literary or informational text.* **Retell literary text.** Retell and/or summarize a story, poem, or other Grade 3 literary text.* **Describe characters in literary text.** Identify or infer characters' traits in Grade 3 literary text, based on what they say, what they do, or how they feel. Determine how their actions contribute to the sequence of events.*
R.3.5.h Draw conclusions using the text for support.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 3 literary or informational text.
R.3.5.j Identify the theme.	**Determine the message, lesson, or moral in literary text.** Determine the central message, lesson, or moral in Grade 3

Grade 3 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	literary text and identify how it is conveyed through key details.* **Retell literary text.** Retell and/or summarize a story, poem, or other Grade 3 literary text.*
R.3.6.a Identify the author's purpose.	**Identify author's point of view or purpose in informational text.** Identify the author's point of view or purpose in Grade 3 informational text. Distinguish the author's point of view from one's own point of view as a reader.*
R.3.6.c Preview and use text features including table of contents, headings, pictures, captions, maps, indices, and charts.	**Use text features in informational text.** Use headings, numbered or bulleted lists, bold print, sidebars, or other search tools to locate key facts or information in Grade 3 informational text.* **Connect text and visuals in informational text.** Use information from text and from visuals, such as maps and photographs, to demonstrate understanding of Grade 3 informational text.*
R.3.6.d . . . [A]nswer questions about what is read using the text for support.	**Answer questions about key ideas and details.** Answer questions to demonstrate understanding of key ideas and details in Grade 3 literary or informational text, referring explicitly to the text as the basis for the answers.
R.3.6.d Ask and answer questions about what is read using the text for support.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 3 literary or informational text.* **Identify cause-and-effect relationships.** Identify cause-and-effect relationships in Grade 3 literary or informational text.*

**This skill is related to the aligned standard*

Grade 3 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Identify sequence of events. Identify sequence of events in Grade 3 literary or informational text.* **Retell informational text.** Retell and/or summarize the main idea and key details of Grade 3 informational text.* **Determine main idea and key details in informational text.** Identify the main idea in Grade 3 informational text and explain how it is supported by key details.* **Analyze text structure in informational text.** Identify or describe the logical connection between particular sentences and paragraphs in Grade 3 informational text, such as comparison, cause/effect, and sequence.*
R.3.6.e Draw conclusions using the text for support.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 3 literary or informational text.
R.3.6.f Summarize information found in nonfiction texts.	**Retell informational text.** Retell and/or summarize the main idea and key details of Grade 3 informational text. **Determine main idea and key details in informational text.** Identify the main idea in Grade 3 informational text and explain how it is supported by key details.*
R.3.6.g Identify the main idea.	**Retell informational text.** Retell and/or summarize the main idea and key details of Grade 3 informational text.*

Grade 3 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Determine main idea and key details in informational text. Identify the main idea in Grade 3 informational text and explain how it is supported by key details.*
R.3.6.h Identify supporting details.	**Retell informational text.** Retell and/or summarize the main idea and key details of Grade 3 informational text.* **Determine main idea and key details in informational text.** Identify the main idea in Grade 3 informational text and explain how it is supported by key details.*

Grade 4

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.4.4.a Use context to clarify meanings of unfamiliar words.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 4 literary or informational text, including academic and/or domain-specific words.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of homophones, multiple-meaning words, shades of meaning, alliteration, and figurative language, such as similes, metaphors, idioms, or adages.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 4 words used in literary texts, grade-level-appropriate content areas, and other academic contexts.*
R.4.4.b Use knowledge of roots, affixes, synonyms, antonyms, and homophones to determine the meaning of new words.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of homophones, multiple-meaning words, shades of meaning, alliteration, and figurative language, such as similes, metaphors, idioms, or adages.*
R.4.4.b Use knowledge of roots, [and] affixes . . . to determine the meaning of new words.	**Use prefixes, suffixes, and word roots.** Use common, grade-appropriate prefixes (such as, but not limited to, *il-, ir-, over-, under-, fore-, de-, trans-);* suffixes (such as, but not limited to, *-ant, -ent, -ance, -ence, -ive, -age);* and word roots (such as, but not limited to, *aud, port, spect, struct)* to determine the meaning of words and phrases.
R.4.4.d Use vocabulary from other content areas.	**Determine word meaning.** Understand the meaning of words and phrases in Grade

**This skill is related to the aligned standard*

Grade 4 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	4 literary or informational text, including academic and/or domain-specific words. **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 4 words used in literary texts, grade-level-appropriate content areas, and other academic contexts.
R.4.4.e . . . [U]se general and specialized vocabulary through . . . reading. . .	**Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 4 words used in literary texts, grade-level-appropriate content areas, and other academic contexts.
R.4.4.e Develop and use general and specialized vocabulary through speaking, listening, reading, and writing.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 4 literary or informational text, including academic and/or domain-specific words.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of homophones, multiple-meaning words, shades of meaning, alliteration, and figurative language, such as similes, metaphors, idioms, or adages.*
R.4.5.a Describe how the choice of language, setting, and characters contributes to the development of plot.	**Interpret author's use of language.** Interpret an author's choice of words in Grade 4 literary or informational text. Identify how an author's words suggest feelings, paint a picture, or create a mood.* **Interpret figurative language and other literary devices.** Identify or interpret an author's use of figurative language, including metaphors, similes, or allusions, in Grade 4 literary or informational text. Identify literary devices such as alliteration or repetition.*

Grade 4 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Identify author's point of view or purpose in informational text. Determine an author's point of view or purpose in Grade 4 informational text.* **Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, including rising action, climax, falling action, and resolution, in Grade 4 literary text, drawing on specific details in the text.* **Analyze characters in literary text.** Analyze characterization in Grade 4 literary text, drawing on specific details in the text, such as a character's thoughts, words, or actions.*
R.4.5.b Identify the theme(s).	**Determine theme in literary text.** Identify the theme or central idea using particular details in Grade 4 literary text. **Summarize literary text.** Summarize a story, poem, or other Grade 4 literary text.*
R.4.5.c Summarize events in the plot.	**Summarize literary text.** Summarize a story, poem, or other Grade 4 literary text. **Determine theme in literary text.** Identify the theme or central idea using particular details in Grade 4 literary text.*
R.4.5.d Identify genres.	**Describe and compare structural elements of literary texts.** Describe the structural elements of Grade 4 poems and dramas, using terms such as verse, rhythm, meter; cast of characters, dialogue, stage directions. Explain major differences

Grade 4 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	between structural elements of poems, drama, and prose.*
R.4.5.e Identify the narrator of a story and the speaker of a poem.	**Identify narrator's point of view in literary text.** Identify and interpret a narrator's or speaker's point of view in Grade 4 literary text. Distinguish between first-person and third-person narration.* **Compare point of view in two literary texts.** Compare the point of view from which two Grade 4 literary texts are narrated.*
R.4.5.g Identify sensory words.	**Interpret author's use of language.** Interpret an author's choice of words in Grade 4 literary or informational text. Identify how an author's words suggest feelings, paint a picture, or create a mood.* **Interpret figurative language and other literary devices.** Identify or interpret an author's use of figurative language, including metaphors, similes, or allusions, in Grade 4 literary or informational text. Identify literary devices such as alliteration or repetition.*
R.4.5.h Draw conclusions/make inferences about text using the text as support.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 4 literary or informational text.
R.4.5.i Compare/contrast details in literary and informational nonfiction texts.	**Cite textual evidence.** Identify facts and details or cite explicit statements from Grade 4 literary or informational text to explain what the text says explicitly or to support inferences made about the text.*

Grade 4 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Determine theme in literary text. Identify the theme or central idea using particular details in Grade 4 literary text.* **Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, including rising action, climax, falling action, and resolution, in Grade 4 literary text, drawing on specific details in the text.* **Compare point of view in two informational texts.** Compare a firsthand and secondhand account of the same event or topic in two Grade 4 informational texts.* **Compare plot and theme in two literary texts.** Compare the treatment of similar themes and patterns of events in two Grade 4 literary texts.* **Compare literary text to multimedia presentations of the text.** Make connections between a Grade 4 literary text and a visual or oral presentation of the text, analyzing where each version reflects specific descriptions or directions in the text. *
R.4.5.j Identify cause and effect relationships.	**Analyze text structure in informational text.** Identify or describe the text structure (e.g., sequence, compare/contrast, cause/effect, problem/solution) that an author uses to organize a Grade 4 informational text or part of a text.* **Analyze plot elements in literary text.** Identify and evaluate structural elements

Grade 4 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	of the plot, including rising action, climax, falling action, and resolution, in Grade 4 literary text, drawing on specific details in the text.* **Analyze relationships between key ideas in informational text.** Explain events, procedures, ideas, or concepts in Grade 4 informational text, including what happened and why, based on specific information in the text.*
R.4.6.a Use text features such as type, headings, and graphics, to predict and categorize information.	**Interpret text features and other visuals in informational text.** Analyze how text features, pictures, multimedia elements, or other visuals contribute to an understanding of Grade 4 informational text.*
R.4.6.b Explain the author's purpose.	**Identify author's point of view or purpose in informational text.** Determine an author's point of view or purpose in Grade 4 informational text.
R.4.6.c Identify the main idea.	**Determine main idea and supporting details in informational text.** Identify the main idea of a Grade 4 informational text and identify its relationship to supporting details. **Summarize informational text.** Summarize main idea and supporting details in Grade 4 informational text.*
R.4.6.d Summarize supporting details.	**Summarize informational text.** Summarize main idea and supporting details in Grade 4 informational text. **Cite textual evidence.** Identify facts and details or cite explicit statements from Grade 4 literary or informational text to

Grade 4 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	explain what the text says explicitly or to support inferences made about the text.* **Determine main idea and supporting details in informational text.** Identify the main idea of a Grade 4 informational text and identify its relationship to supporting details.*
R.4.6.e Draw conclusions and make inferences using textual information as support.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 4 literary or informational text.
R.4.6.f Distinguish between cause and effect.	**Analyze text structure in informational text.** Identify or describe the text structure (e.g., sequence, compare/contrast, cause/effect, problem/solution) that an author uses to organize a Grade 4 informational text or part of a text.* **Analyze relationships between key ideas in informational text.** Explain events, procedures, ideas, or concepts in Grade 4 informational text, including what happened and why, based on specific information in the text.*
R.4.6.g Distinguish between fact and opinion.	**Distinguish fact and opinion in informational text.** Distinguish facts and opinions in Grade 4 informational text.

Grade 5

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.5.4.a Use context to clarify meaning of unfamiliar words and phrases.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 5 literary or informational text, including academic and/or domain-specific words.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of homophones, multiple-meaning words, shades of meaning, and figurative language, such as similes, metaphors, idioms, or adages.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 5 words used in literary texts, grade-level-appropriate content areas, and other academic contexts.*
R.5.4.b Use context and sentence structure to determine meanings and differentiate among multiple meanings of words.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of homophones, multiple-meaning words, shades of meaning, and figurative language, such as similes, metaphors, idioms, or adages.*
R.5.4.c Use knowledge of roots [and] affixes . . . to determine the meaning of new words.	**Use prefixes, suffixes, and word roots.** Use common, grade-appropriate prefixes (such as, but not limited to, *inter-, semi-, anti-, multi-);* suffixes (such as, but not limited to, *-al, -ial, -ious, -eous, -an, -ian, -ity);* and word roots (such as, but not limited to, *ped, phon, dict, scrib/script, meter/metr, mit/mis)* to determine the meaning of words and phrases.
R.5.4.c Use knowledge of roots, affixes, synonyms, antonyms, and homophones to determine the meaning of new words.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of homophones, multiple-meaning words, shades of

Grade 5 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	meaning, and figurative language, such as similes, metaphors, idioms, or adages.*
R.5.4.d Identify an author's use of figurative language.	**Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 5 literary or informational text and how it contributes to the meaning of the text. **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of homophones, multiple-meaning words, shades of meaning, and figurative language, such as similes, metaphors, idioms, or adages.*
R.5.4.f Develop and use general and specialized content area vocabulary through speaking, listening, reading, and writing.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 5 literary or informational text, including academic and/or domain-specific words.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 5 words used in literary texts, grade-level-appropriate content areas, and other academic contexts.*
R.5.5.a Summarize plot events using details from text.	**Summarize literary text.** Summarize a story, poem, or other Grade 5 literary text. **Determine theme in literary text.** Identify the theme(s) or central idea(s) in Grade 5 literary text and how each is conveyed through particular details.* **Analyze characters in literary text.** Analyze characterization in Grade 5 literary

Grade 5 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	text. Identify how the characters change or respond to challenges.*
R.5.5.b Discuss the impact of setting on plot development.	**Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, including rising action, climax, falling action, and resolution, in Grade 5 literary text, drawing on specific details in the text.*
R.5.5.c Describe character development.	**Analyze characters in literary text.** Analyze characterization in Grade 5 literary text. Identify how the characters change or respond to challenges.
R.5.5.d Identify theme(s).	**Determine theme in literary text.** Identify the theme(s) or central idea(s) in Grade 5 literary text and how each is conveyed through particular details. **Summarize literary text.** Summarize a story, poem, or other Grade 5 literary text.* **Analyze characters in literary text.** Analyze characterization in Grade 5 literary text. Identify how the characters change or respond to challenges.*
R.5.5.e Explain the resolution of conflict(s).	**Summarize literary text.** Summarize a story, poem, or other Grade 5 literary text.* **Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, including rising action, climax, falling action, and resolution, in Grade 5 literary text, drawing on specific details in the text.*
R.5.5.f Identify genres.	**Determine theme in literary text.** Identify the theme(s) or central idea(s) in Grade 5 literary text and how each is conveyed through particular details.*

**This skill is related to the aligned standard*

Grade 5 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Analyze plot elements in literary text. Identify and evaluate structural elements of the plot, including rising action, climax, falling action, and resolution, in Grade 5 literary text, drawing on specific details in the text.* **Compare topic and theme in two literary texts.** Compare the approaches to similar topics and themes in two Grade 5 literary texts of the same genre.*
R.5.5.g Differentiate between first and third person point-of-view.	**Identify narrator's point of view in literary text.** Identify how a narrator's or speaker's point of view influences how events are described in Grade 5 literary text.*
R.5.5.h Differentiate between free verse and rhymed poetry.	**Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, including rising action, climax, falling action, and resolution, in Grade 5 literary text, drawing on specific details in the text.* **Analyze structure in literary text.** Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a Grade 5 literary text.*
R.5.5.i Explain how an author's choice of vocabulary contributes to the author's style.	**Interpret author's use of language.** Interpret an author's use of connotations, or shades of meaning, in Grade 5 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary text. **Interpret figurative language.** Identify or interpret an author's use of figurative

Grade 5 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	language and/or other literary devices in Grade 5 literary or informational text and how it contributes to the meaning of the text. * **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of homophones, multiple-meaning words, shades of meaning, and figurative language, such as similes, metaphors, idioms, or adages.*
R.5.5.j Draw conclusions and make inferences with support from the text.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 5 literary or informational text.
R.5.5.k Identify cause and effect relationships.	**Analyze text structure in informational text.** Analyze the overall text structure (e.g., sequence, compare/contrast, cause/effect, problem/solution) that an author uses to organize a Grade 5 informational text. Evaluate how a particular sentence, paragraph, or section fits into the overall structure and contributes to the development of ideas.* **Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, including rising action, climax, falling action, and resolution, in Grade 5 literary text, drawing on specific details in the text.* **Analyze relationships between key ideas in informational text.** Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in Grade 5 informational text, based on specific information in the text.*

Grade 5 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.5.5.l Compare/contrast details in literary and informational nonfiction texts.	**Determine theme in literary text.** Identify the theme(s) or central idea(s) in Grade 5 literary text and how each is conveyed through particular details.* **Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, including rising action, climax, falling action, and resolution, in Grade 5 literary text, drawing on specific details in the text.* **Compare topic and theme in two literary texts.** Compare the approaches to similar topics and themes in two Grade 5 literary texts of the same genre.*
R.5.6.c Identify the main idea.	**Determine main idea and supporting details in informational text.** Identify the main idea or multiple main ideas of a Grade 5 informational text and analyze its relationship to supporting details. **Summarize informational text.** Summarize main idea and supporting details in Grade 5 informational text.*
R.5.6.d Summarize supporting details.	**Summarize informational text.** Summarize main idea and supporting details in Grade 5 informational text. **Cite textual evidence.** Identify facts and details or cite explicit statements from Grade 5 literary or informational text to explain what the text says explicitly or to support inferences made about the text. * **Determine main idea and supporting details in informational text.** Identify

Grade 5 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	the main idea or multiple main ideas of a Grade 5 informational text and analyze its relationship to supporting details.*
R.5.6.e Identify organizational pattern(s).	**Analyze text structure in informational text.** Analyze the overall text structure (e.g., sequence, compare/contrast, cause/effect, problem/solution) that an author uses to organize a Grade 5 informational text. Evaluate how a particular sentence, paragraph, or section fits into the overall structure and contributes to the development of ideas.*
R.5.6.f Identify transitional words and phrases that signal an author's organizational pattern.	**Analyze text structure in informational text.** Analyze the overall text structure (e.g., sequence, compare/contrast, cause/effect, problem/solution) that an author uses to organize a Grade 5 informational text. Evaluate how a particular sentence, paragraph, or section fits into the overall structure and contributes to the development of ideas.*
R.5.6.g Locate information from the text to support . . . inferences and conclusions.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 5 literary or informational text.
R.5.6.h Identify cause and effect relationships.	**Analyze text structure in informational text.** Analyze the overall text structure (e.g., sequence, compare/contrast, cause/effect, problem/solution) that an author uses to organize a Grade 5 informational text. Evaluate how a particular sentence, paragraph, or section fits into the overall structure and contributes to the development of ideas.*
R.5.6.i Differentiate between fact and opinion.	**Distinguish fact and opinion in informational text.** Distinguish facts and opinions in Grade 5 informational text.

Grade 5 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.5.6.j Compare and contrast details and ideas . . . between texts.	**Compare text structure in two informational texts.** Compare the overall structure (e.g., sequence, compare/ contrast, cause/effect, problem/solution) of events, ideas, or concepts in two Grade 5 informational texts.
R.5.6.j Compare and contrast details and ideas within and between texts.	**Analyze text structure in informational text.** Analyze the overall text structure (e.g., sequence, compare/contrast, cause/ effect, problem/solution) that an author uses to organize a Grade 5 informational text. Evaluate how a particular sentence, paragraph, or section fits into the overall structure and contributes to the development of ideas.*
RS.5.9.b Collect . . . information from multiple resources.	**Find information from multiple sources.** Draw on information from two or more Grade 5 informational sources to locate information about a topic.
RS.5.9.b Collect and organize information from multiple resources.	**Integrate information from multiple sources.** Integrate information from two or more Grade 5 informational sources on the same topic.*

**This skill is related to the aligned standard*

Grade 6

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.6.4.b Use roots [and] affixes . . . to expand vocabulary.	**Use prefixes, suffixes, and word roots.** Use common, grade-appropriate prefixes (such as, but not limited to, *sub-, super-, auto-, ad-, co-, com-);* suffixes (such as, but not limited to, *-ship, -ern, -ary, -ist, -ish);* and word roots (such as, but not limited to, *min, graph, photo, bene, vac, jur/jus)* to determine the meaning of words and phrases.
R.6.4.b Use roots, affixes, synonyms, and antonyms to expand vocabulary.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, or personification.*
R.6.4.c Use context and sentence structure to determine meanings and differentiate among multiple meanings of words.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, or personification.*
R.6.4.d Identify and analyze . . . figurative language.	**Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 6 literary or informational text and how it contributes to the meaning of the text.
R.6.4.d Identify and analyze the construction and impact of figurative language.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, or personification.*

Grade 6 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.6.4.f Extend general and specialized vocabulary through . . . reading . . .	**Determine word meaning.** Understand the meaning of words and phrases in Grade 6 literary or informational text, including academic and/or domain-specific words.
R.6.5.a Identify the elements of narrative structure, including . . . character, plot, [and] conflict . . .	**Analyze characters in literary text.** Analyze characterization in Grade 6 literary text. Describe how characters respond or change as the plot moves toward a resolution.
R.6.5.a Identify the elements of narrative structure, including . . . plot [and] conflict . . .	**Analyze plot elements in literary text.** Identify and analyze how a particular plot in Grade 6 literary text unfolds in a series of episodes around a problem, including rising action, climax, falling action, resolution, and nonlinear elements such as flashback.
R.6.5.a Identify the elements of narrative structure, including . . . theme.	**Determine theme in literary text.** Identify the theme(s) or central idea(s) in Grade 6 literary text and how each is conveyed through particular details.
R.6.5.a Identify the elements of narrative structure, including setting, character, plot, conflict, and theme.	**Analyze structure in literary text.** Analyze how a sentence, chapter, scene, or stanza fits into the overall structure of a Grade 6 literary text and contributes to the development of the theme, setting, or plot.*
R.6.5.b Describe cause and effect relationships and their impact on plot.	**Analyze plot elements in literary text.** Identify and analyze how a particular plot in Grade 6 literary text unfolds in a series of episodes around a problem, including rising action, climax, falling action, resolution, and nonlinear elements such as flashback.*
R.6.5.c Explain how an author uses character development to drive conflict and resolution.	**Analyze characters in literary text.** Analyze characterization in Grade 6 literary text. Describe how characters respond or change as the plot moves toward a resolution.

**This skill is related to the aligned standard*

Grade 6 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Summarize literary text. Summarize a story, poem, or other Grade 6 literary text.* **Analyze plot elements in literary text.** Identify and analyze how a particular plot in Grade 6 literary text unfolds in a series of episodes around a problem, including rising action, climax, falling action, resolution, and nonlinear elements such as flashback.* **Analyze structure in literary text.** Analyze how a sentence, chapter, scene, or stanza fits into the overall structure of a Grade 6 literary text and contributes to the development of the theme, setting, or plot.*
R.6.5.d Differentiate between first and third person point-of-view.	**Identify narrator's point of view in literary text.** Identify how an author develops the point of view of the narrator or speaker in Grade 6 literary text.*
R.6.5.e Describe how word choice and imagery contribute to the meaning of a text.	**Interpret author's use of language.** Interpret an author's use of connotations, or shades of meaning, in Grade 6 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary text.* **Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 6 literary or informational text and how it contributes to the meaning of the text.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of

Grade 6 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	meaning, and figurative language, such as similes, metaphors, idioms, or personification.*
R.6.5.f Draw conclusions and make inferences using the text for support.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 6 literary or informational text.
R.6.5.g Identify the characteristics of a variety of genres.	**Determine theme in literary text.** Identify the theme(s) or central idea(s) in Grade 6 literary text and how each is conveyed through particular details.* **Analyze plot elements in literary text.** Identify and analyze how a particular plot in Grade 6 literary text unfolds in a series of episodes around a problem, including rising action, climax, falling action, resolution, and nonlinear elements such as flashback.* **Compare topic and theme in two literary texts.** Compare the approaches to similar topics and themes in two Grade 6 literary texts of different genres.* **Compare literary text to multimedia presentations of the text.** Compare the experience of reading a Grade 6 literary text to listening to or viewing an audio or video presentation of the text.*
R.6.5.h Identify and analyze the author's use of figurative language.	**Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 6 literary or informational text and how it contributes to the meaning of the text.

**This skill is related to the aligned standard*

Grade 6 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Understand word relationships. Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, or personification.*
R.6.5.i Compare/contrast details in literary and informational nonfiction texts.	**Determine theme in literary text.** Identify the theme(s) or central idea(s) in Grade 6 literary text and how each is conveyed through particular details.* **Analyze plot elements in literary text.** Identify and analyze how a particular plot in Grade 6 literary text unfolds in a series of episodes around a problem, including rising action, climax, falling action, resolution, and nonlinear elements such as flashback.* **Compare the presentation of information in two informational texts.** Compare one author's presentation of ideas or events with that of another in two Grade 6 informational texts on the same topic.* **Compare topic and theme in two literary texts.** Compare the approaches to similar topics and themes in two Grade 6 literary texts of different genres.* **Integrate information from multiple informational sources.** Analyze Grade 6 informational text and integrate quantitative or technical data from other media or formats to understand key facts or information about a topic.*

Grade 6 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Compare literary text to multimedia presentations of the text. Compare the experience of reading a Grade 6 literary text to listening to or viewing an audio or video presentation of the text.*
R.6.5.j Identify transitional words and phrases that signal an author's organizational pattern.	**Analyze text structure in informational text.** Analyze the overall text structure an author uses to organize a Grade 6 informational text. Evaluate how a particular sentence, paragraph, or section fits into the overall structure and contributes to the development of ideas.*
R.6.6.b Identify main idea.	**Summarize informational text.** Summarize Grade 6 informational text, identifying the central idea and the supporting ideas.* **Determine central idea and supporting ideas in informational text.** Identify the central idea of a Grade 6 informational text and how it is conveyed through particular details.*
R.6.6.c Summarize supporting details.	**Summarize informational text.** Summarize Grade 6 informational text, identifying the central idea and the supporting ideas. **Cite textual evidence.** Identify facts and details or cite explicit statements from Grade 6 literary or informational text to explain what the text says explicitly or to support inferences made about the text.* **Determine central idea and supporting ideas in informational text.** Identify the central idea of a Grade 6 informational text

Grade 6 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	and how it is conveyed through particular details.*
R.6.6.d Create an objective summary including main idea and supporting details.	**Summarize informational text.** Summarize Grade 6 informational text, identifying the central idea and the supporting ideas. **Determine central idea and supporting ideas in informational text.** Identify the central idea of a Grade 6 informational text and how it is conveyed through particular details.
R.6.6.e Draw conclusions and make inferences based on explicit and implied information.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 6 literary or informational text.
R.6.6.f Identify the author's organizational pattern(s).	**Analyze text structure in informational text.** Analyze the overall text structure an author uses to organize a Grade 6 informational text. Evaluate how a particular sentence, paragraph, or section fits into the overall structure and contributes to the development of ideas.* **Analyze key ideas in informational text.** Analyze how a key individual, event, or idea is introduced, illustrated, or elaborated in Grade 6 informational text.*
R.6.6.g Identify transitional words and phrases that signal an author's organizational pattern.	**Analyze text structure in informational text.** Analyze the overall text structure an author uses to organize a Grade 6 informational text. Evaluate how a particular sentence, paragraph, or section fits into the overall structure and contributes to the development of ideas.*

Grade 6 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Analyze key ideas in informational text. Analyze how a key individual, event, or idea is introduced, illustrated, or elaborated in Grade 6 informational text.*
R.6.6.h Differentiate between fact and opinion.	**Distinguish fact and opinion in informational text.** Distinguish facts, supported inferences, and opinions in Grade 6 informational text.
R.6.6.i Identify cause and effect relationships.	**Analyze text structure in informational text.** Analyze the overall text structure an author uses to organize a Grade 6 informational text. Evaluate how a particular sentence, paragraph, or section fits into the overall structure and contributes to the development of ideas.*
R.6.6.j Analyze ideas within and between selections providing textual evidence.	**Summarize informational text.** Summarize Grade 6 informational text, identifying the central idea and the supporting ideas.* **Determine central idea and supporting ideas in informational text.** Identify the central idea of a Grade 6 informational text and how it is conveyed through particular details.* **Compare the presentation of information in two informational texts.** Compare one author's presentation of ideas or events with that of another in two Grade 6 informational texts on the same topic.*

Grade 7

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.7.4.b Use roots [and] affixes . . . to expand vocabulary.	**Use prefixes, suffixes, and word roots.** Use common, grade-appropriate prefixes (such as, but not limited to, *circum-, counter-, hemi-, poly-, ultra-);* suffixes (such as, but not limited to, *-ic, -cracy, -ide, -hood, -ure);* and word roots (such as, but not limited to, *log/logue, gen, vid/vis, phil, sens/sent)* to determine the meaning of words and phrases.
R.7.4.b Use roots, affixes, synonyms, and antonyms to expand vocabulary.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, or allusions.*
R.7.4.c Identify and analyze . . . figurative language.	**Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 7 literary or informational text and how it contributes to the meaning of the text.
R.7.4.c Identify and analyze the construction and impact of figurative language.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, or allusions.*
R.7.4.d Identify connotations.	**Interpret author's use of language.** Interpret an author's use of connotations, or shades of meaning, and/or descriptive language in Grade 7 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.* **Understand word relationships.** Recognize synonyms and antonyms.

Grade 7 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, or allusions.*
R.7.4.e Use context and sentence structure to determine meanings and differentiate among multiple meanings of words.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, or allusions.*
R.7.4.g Extend general and cross-curricular vocabulary through . . . reading . . .	**Determine word meaning.** Understand the meaning of words and phrases in Grade 7 literary or informational text, including academic and/or domain-specific words.
R.7.5.a Describe the elements of narrative structure including setting, character development, plot . . . and conflict and how they influence each other.	**Interpret relationships among story elements in literary text.** Analyze how the setting, including historical and cultural settings, shapes characters and plot events, or how characters' actions, motivations, and/or conflicts advance the plot development in Grade 7 literary text.
R.7.5.a Describe the elements of narrative structure including setting, character development, plot, theme . . . and how they influence each other.	**Determine theme in literary text.** Identify or analyze the theme(s) or central idea(s) in Grade 7 literary text, including its relationship to the characters, setting, and plot.
R.7.5.a Describe the elements of narrative structure including setting, character development, plot, theme, and conflict and how they influence each other.	**Summarize literary text.** Summarize a story, poem, or other Grade 7 literary text.* **Analyze characters in literary text.** Analyze characterization and motivation in Grade 7 literary text through the narrator's description and/or the thoughts, words, and actions of the characters.*
R.7.5.b Identify and explain the theme(s).	**Determine theme in literary text.** Identify or analyze the theme(s) or central idea(s) in Grade 7 literary text, including its

Grade 7 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	relationship to the characters, setting, and plot. **Summarize literary text.** Summarize a story, poem, or other Grade 7 literary text.* **Interpret relationships among story elements in literary text.** Analyze how the setting, including historical and cultural settings, shapes characters and plot events, or how characters' actions, motivations, and/or conflicts advance the plot development in Grade 7 literary text.* **Analyze characters in literary text.** Analyze characterization and motivation in Grade 7 literary text through the narrator's description and/or the thoughts, words, and actions of the characters.*
R.7.5.c Identify cause and effect relationships and their impact on plot.	**Analyze text structure in informational text.** Analyze the overall text structure an author uses to organize a Grade 7 informational text. Evaluate how the major sections contribute to the whole and to the development of ideas.
R.7.5.d Differentiate between first and third person point-of-view.	**Analyze point of view in literary text.** Identify point of view or analyze how an author contrasts different points of view in Grade 7 literary text, such as: narrator or characters and audience or reader; first-person and third-person; limited and omniscient point of view.*
R.7.5.g Describe the impact of word choice, imagery, and literary devices including figurative language in an author's style.	**Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 7 literary or informational text and how it contributes to the meaning of the text.

**This skill is related to the aligned standard*

Grade 7 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Understand word relationships. Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, or allusions.* **Analyze literary devices in literary text.** Analyze how rhymes and other repetitions of sounds, such as alliteration, have an impact on specific verses or stanzas of a poem or on sections of a story or drama.*
R.7.5.h Compare/contrast details in literary and informational nonfiction texts.	**Compare fictional portrayals to historical accounts of the same topic.** Compare a Grade 7 fictional portrayal of a time, place, or character and a Grade 7 historical account of the same period as a means of understanding how authors of fiction use or alter history. **Compare literary text to multimedia presentations of the text.** Compare a Grade 7 literary text to an audio, video, or other artistic presentation of the text, analyzing the effects of techniques that are unique to each medium.*
R.7.5.i Make inferences and draw conclusions based on the text.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 7 literary or informational text.
R.7.6.b Identify an author's organizational pattern using textual clues, such as transitional words and phrases.	**Analyze text structure in informational text.** Analyze the overall text structure an author uses to organize a Grade 7 informational text. Evaluate how the major sections contribute to the whole and to the development of ideas.*

Grade 7 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.7.6.c Make inferences and draw logical conclusions using explicit and implied textual evidence.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 7 literary or informational text.
R.7.6.d Differentiate between fact and opinion.	**Distinguish fact and opinion in informational text.** Distinguish facts, supported inferences, and opinions in Grade 7 informational text.
R.7.6.e Identify the source, viewpoint, and purpose of texts.	**Identify author's point of view or purpose in informational text.** Determine an author's point of view or purpose in Grade 7 informational text. Analyze how the author distinguishes his or her position from that of others.*
R.7.6.f Describe how word choice and language structure convey an author's viewpoint.	**Interpret author's use of language.** Interpret an author's use of connotations, or shades of meaning, and/or descriptive language in Grade 7 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.* **Identify author's point of view or purpose in informational text.** Determine an author's point of view or purpose in Grade 7 informational text. Analyze how the author distinguishes his or her position from that of others.* **Evaluate argument in informational text.** Identify and evaluate the argument and the specific claims that an author makes in Grade 7 informational text. Assess whether the reasoning and the evidence are sufficient to support the argument and/or any specific claims.*

Grade 7 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.7.6.g Identify the main idea.	**Summarize informational text.** Summarize Grade 7 informational text, identifying the central idea and the supporting ideas.* **Determine central idea and supporting ideas in informational text.** Identify the central idea or multiple main ideas of a Grade 7 informational text and analyze its relationship to supporting details.*
R.7.6.h Summarize text identifying supporting details.	**Summarize informational text.** Summarize Grade 7 informational text, identifying the central idea and the supporting ideas. **Cite textual evidence.** Identify facts and details or cite explicit statements from Grade 7 literary or informational text to explain what the text says explicitly or to support inferences made about the text.* **Determine central idea and supporting ideas in informational text.** Identify the central idea or multiple main ideas of a Grade 7 informational text and analyze its relationship to supporting details.*
R.7.6.i Create an objective summary including main idea and supporting details.	**Summarize informational text.** Summarize Grade 7 informational text, identifying the central idea and the supporting ideas. **Determine central idea and supporting ideas in informational text.** Identify the central idea or multiple main ideas of a Grade 7 informational text and analyze its relationship to supporting details.*

Grade 7 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.7.6.j Identify cause and effect relationships.	**Analyze text structure in informational text.** Analyze the overall text structure an author uses to organize a Grade 7 informational text. Evaluate how the major sections contribute to the whole and to the development of ideas.* **Analyze interactions in informational text.** Analyze the interactions between individuals, events, and ideas in Grade 7 informational text.*
R.7.6.l Analyze ideas . . . between selections providing textual evidence.	**Compare the presentation of information in two informational texts.** Compare how two authors writing about the same topic emphasize different evidence or advance different interpretations of facts to shape their presentations in Grade 7 informational text.
R.7.6.l Analyze ideas within . . . selections providing textual evidence.	**Analyze interactions in informational text.** Analyze the interactions between individuals, events, and ideas in Grade 7 informational text.
R.7.6.l Analyze ideas within and between selections providing textual evidence.	**Analyze text structure in informational text.** Analyze the overall text structure an author uses to organize a Grade 7 informational text. Evaluate how the major sections contribute to the whole and to the development of ideas.* **Identify author's point of view or purpose in informational text.** Determine an author's point of view or purpose in Grade 7 informational text. Analyze how the author distinguishes his or her position from that of others.*

**This skill is related to the aligned standard*

Grade 7 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Evaluate argument in informational text. Identify and evaluate the argument and the specific claims that an author makes in Grade 7 informational text. Assess whether the reasoning and the evidence are sufficient to support the argument and/or any specific claims.* **Compare informational text to multimedia presentations of the text.** Compare a Grade 7 informational text to an audio, video, or other artistic presentation of the text, analyzing each medium's portrayal of the subject.*

**This skill is related to the aligned standard*

Grade 8

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.8.4.a Identify and analyze . . . an author's use of figurative language.	**Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 8 literary or informational text and how it contributes to the meaning of the text.
R.8.4.a Identify and analyze the construction and impact of an author's use of figurative language.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, puns, or irony.*
R.8.4.b Use context, structure, and connotations to determine meaning and differentiate among multiple meanings of words and phrases.	**Interpret author's use of language.** Interpret an author's use of connotations, or shades of meaning, in Grade 8 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, puns, or irony.*
R.8.4.c Use roots [and] affixes . . . to determine the meaning(s) of unfamiliar words and technical vocabulary.	**Use prefixes, suffixes, and word roots.** Use common, grade-appropriate prefixes (such as, but not limited to, *a-, ab-, ante-, eu-, hyper-, peri-, sym-);* suffixes (such as, but not limited to, *-ite, -logy, -ify, -ancy);* and word roots (such as, but not limited to, *ast, qui, path, mand/mend, duc/duct)* to determine the meaning of words and phrases.
R.8.4.c Use roots, affixes, synonyms, and antonyms to determine the meaning(s) of unfamiliar words and technical vocabulary.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-

**This skill is related to the aligned standard*

Grade 8 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, puns, or irony.*
R.8.4.f Discriminate between connotative and denotative meanings and interpret the connotation.	**Interpret author's use of language.** Interpret an author's use of connotations, or shades of meaning, in Grade 8 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, puns, or irony.*
R.8.4.g Extend general and cross-curricular vocabulary through . . . reading . . .	**Determine word meaning.** Understand the meaning of words and phrases in Grade 8 literary or informational text, including academic and/or domain-specific words.
R.8.5.a Analyze how authors' development of . . . point of view . . . convey[s] meaning.	**Analyze point of view in literary text.** Identify point of view or contrast points of view (such as narrator or characters and audience or reader; first-person and third-person; limited and omniscient point of view) in Grade 8 literary text, and analyze how different viewpoints clarify the central idea or create such effects as suspense, irony, or humor.
R.8.5.a Analyze how authors' development of characters . . . convey[s] meaning.	**Analyze characters in literary text.** Analyze characterization and motivation in Grade 8 literary text. Evaluate how particular lines of dialogue or incidents in the plot propel the action, reveal aspects of a character, or provoke a decision.

**This skill is related to the aligned standard*

Grade 8 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.8.5.a Analyze how authors' development of characters, conflict, point of view, voice, and tone convey meaning.	**Interpret author's use of language.** Interpret an author's use of connotations, or shades of meaning, in Grade 8 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.* **Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, such as subplots, parallel episodes, or climax, in Grade 8 literary text.*
R.8.5.b Identify cause and effect relationships and their impact on plot.	**Analyze text structure in informational text.** Analyze in detail the structure of a specific paragraph in a Grade 8 informational text, including the role of particular sentences in developing and refining a key concept.* **Analyze connections in informational text.** Analyze the connections among and distinctions between individuals, ideas, or events in Grade 8 informational text.*
R.8.5.c Explain the development of the theme(s).	**Determine theme in literary text.** Identify or analyze the theme(s) or central idea(s) in Grade 8 literary text, including its relationship to the characters, setting, and plot. **Summarize literary text.** Summarize a story, poem, or other Grade 8 literary text.*
R.8.5.d Explain the use of . . . figurative language.	**Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 8 literary or informational text and how it contributes to the meaning of the text.

**This skill is related to the aligned standard*

Grade 8 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.8.5.d Explain the use of symbols and figurative language.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, puns, or irony.*
R.8.5.e Make inferences and draw conclusions based on explicit and implied information using references to the text for support.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 8 literary or informational text.
R.8.5.g Compare/contrast details in literary and informational nonfiction texts.	**Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, such as subplots, parallel episodes, or climax, in Grade 8 literary text.* **Compare structure of two literary texts.** Compare the structure of two Grade 8 literary texts and analyze how the differing structure of each text contributes to its overall meaning or style.* **Compare literary text to multimedia presentations of the text.** Compare a Grade 8 literary text to an audio or video presentation of the text, analyzing the extent to which the multimedia version follows or departs from the text.*
R.8.5.h Compare and contrast the authors' use of word choice, dialogue, form, rhyme, rhythm, and voice in different texts.	**Interpret author's use of language.** Interpret an author's use of connotations, or shades of meaning, in Grade 8 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.* **Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in

Grade 8 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Grade 8 literary or informational text and how it contributes to the meaning of the text.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, puns, or irony.*
R.8.5.i Compare and contrast authors' styles.	**Interpret author's use of language.** Interpret an author's use of connotations, or shades of meaning, in Grade 8 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.* **Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 8 literary or informational text and how it contributes to the meaning of the text.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of multiple-meaning words, analogies, shades of meaning, and figurative language, such as similes, metaphors, idioms, puns, or irony.*
R.8.6.a Identify an author's organizational pattern using textual clues, such as transitional words and phrases.	**Analyze text structure in informational text.** Analyze in detail the structure of a specific paragraph in a Grade 8 informational text, including the role of particular sentences in developing and refining a key concept.*

Grade 8 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Analyze connections in informational text. Analyze the connections among and distinctions between individuals, ideas, or events in Grade 8 informational text.*
R.8.6.b Apply knowledge of text features and organizational patterns to analyze selections.	**Analyze text structure in informational text.** Analyze in detail the structure of a specific paragraph in a Grade 8 informational text, including the role of particular sentences in developing and refining a key concept.* **Analyze connections in informational text.** Analyze the connections among and distinctions between individuals, ideas, or events in Grade 8 informational text.*
R.8.6.d Make inferences and draw conclusions based on explicit and implied information using evidence from text as support.	**Make inferences based on textual evidence.** Draw conclusions or make inferences in Grade 8 literary or informational text.
R.8.6.e Analyze the author's qualifications, viewpoint, word choice, and impact.	**Evaluate argument in informational text.** Identify and evaluate the argument and the specific claims that an author makes in Grade 8 informational text. Assess whether the reasoning and the evidence are sufficient to support the argument and/or any specific claims. Identify irrelevant evidence.* **Identify author's point of view or purpose in informational text.** Determine an author's point of view or purpose in Grade 8 informational text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.*
R.8.6.f Analyze details for relevance and accuracy.	**Evaluate argument in informational text.** Identify and evaluate the argument and the specific claims that an author makes

Grade 8 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	in Grade 8 informational text. Assess whether the reasoning and the evidence are sufficient to support the argument and/or any specific claims. Identify irrelevant evidence.*
R.8.6.g Differentiate between fact and opinion.	**Distinguish fact and opinion in informational text.** Distinguish facts, supported inferences, and opinions in Grade 8 informational text.
R.8.6.h Identify the main idea.	**Summarize informational text.** Summarize Grade 8 informational text, identifying the central idea and the supporting ideas.* **Determine central idea and supporting ideas in informational text.** Identify the central idea of a Grade 8 informational text and analyze its relationship to supporting details.*
R.8.6.i Summarize the text identifying supporting details.	**Summarize informational text.** Summarize Grade 8 informational text, identifying the central idea and the supporting ideas. **Cite textual evidence.** Cite several pieces of textual evidence that strongly support analysis of Grade 8 literary or informational text.* **Determine central idea and supporting ideas in informational text.** Identify the central idea of a Grade 8 informational text and analyze its relationship to supporting details.*
R.8.6.j Identify cause and effect relationships.	**Analyze text structure in informational text.** Analyze in detail the structure of a specific paragraph in a Grade 8

Grade 8 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	informational text, including the role of particular sentences in developing and refining a key concept.* **Analyze connections in informational text.** Analyze the connections among and distinctions between individuals, ideas, or events in Grade 8 informational text.*
R.8.6.l Analyze ideas . . . between selections providing textual evidence.	**Analyze conflicting information in two informational sources.** Analyze two Grade 8 informational sources that provide conflicting information on the same topic and identify where the sources disagree on matters of fact or interpretation.
R.8.6.l Analyze ideas within . . . selections providing textual evidence.	**Analyze connections in informational text.** Analyze the connections among and distinctions between individuals, ideas, or events in Grade 8 informational text.

**This skill is related to the aligned standard*

Grade 9

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.9.3.a Use structural analysis of roots [and] affixes . . . to understand complex words.	**Use prefixes, suffixes, and word roots.** Use grade-appropriate prefixes, suffixes, and Greek and Latin word roots to understand the meaning of general academic and domain-specific words, particularly words used in history, social studies, science, and technical subjects. (Grade 9)
R.9.3.a Use structural analysis of roots, affixes, synonyms, and antonyms to understand complex words.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 9)*
R.9.3.b Use context, structure, and connotations to determine meanings of words and phrases.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 9 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 9 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 9 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 9)*

**This skill is related to the aligned standard*

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Use general academic and domain-specific vocabulary. Demonstrate knowledge of Grade 9 words used in literary texts, grade-appropriate content areas, and other academic contexts. *
R.9.3.c Discriminate between connotative and denotative meanings and interpret the connotation.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 9 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 9 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 9 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Level 9 use literary techniques to develop themes and concepts appropriate to a particular historical situation.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 9)*

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.9.3.d Identify the meaning of common idioms.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 9 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 9 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 9 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Level 9 use literary techniques to develop themes and concepts appropriate to a particular historical situation.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 9)*
R.9.3.e Explain the meaning of literary and classical allusions and figurative language in text.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 9 literary or informational text, including academic and/or domain-specific words.

**This skill is related to the aligned standard*

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Identify or interpret an author's use of figurative language and/or other literary devices in Grade 9 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 9 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 9 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 9 literary texts and/or artistic mediums. **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 9)*
R.9.3.f Extend general and cross-curricular vocabulary through . . . reading . . .	**Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 9 words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.9.3.f Extend general and cross-curricular vocabulary through speaking, listening, reading, and writing.	**Determine word meaning. Interpret figurative language and author's use of language.** *

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Understand the meaning of words and phrases in Grade 9 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 9 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 9 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Consult reference materials.** Use reference materials, such as a dictionary, glossary, or thesaurus, to find meanings, confirm pronunciations, or determine parts of speech. (Grade 9)*
R.9.4.b Explain the relationships between and among elements of literature: . . . point of view . . .	**Analyze point of view in literary text.** Analyze a particular point of view or cultural experience reflected in a Grade 9 literary text drawn from a range of world literature.
R.9.4.b Explain the relationships between and among elements of literature: . . . theme.	**Determine theme in literary text.** Identify or analyze the theme or central idea in one or more Grade 9 literary texts, including how specific details help develop the theme or central idea.
R.9.4.b Explain the relationships between and among elements of literature: characters [and] plot . . .	**Analyze characters and plot in literary text.** • Analyze how complex characters, such as those with multiple or conflicting motivations, are developed in Grade 9 literary text, as well as how characters' actions, motivations, and/or conflicts advance the development of the plot.

**This skill is related to the aligned standard*

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Identify and evaluate structural elements of the plot, such as subplots, parallel episodes, and/or climax, in Grade 9 literary text.
R.9.4.b Explain the relationships between and among elements of literature: characters, plot, setting, tone, point of view, and theme.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 9 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 9 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 9 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze structural elements in literary text.** Analyze how the author structures text, orders events, and manipulates time to create effects (mystery, surprise) in one or more Grade 9 literary texts. *
R.9.4.c Interpret how themes are connected across texts.	**Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 9 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 9 literary texts and/or artistic mediums.

**This skill is related to the aligned standard*

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.9.4.d Compare and contrast the use of rhyme, rhythm, sound, imagery, and other literary devices to convey a message and elicit the reader's emotion.	**Determine theme in literary text.** Identify or analyze the theme or central idea in one or more Grade 9 literary texts, including how specific details help develop the theme or central idea. * **Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 9 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 9 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 9 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze structural elements in literary text.** Analyze how the author structures text, orders events, and manipulates time to create effects (mystery, surprise) in one or more Grade 9 literary texts. *
R.9.4.e Analyze the cultural or social function of a literary text.	**Analyze point of view in literary text.** Analyze a particular point of view or cultural experience reflected in a Grade 9 literary text drawn from a range of world literature.
R.9.4.f Explain the relationship between the author's style and literary effect.	**Determine word meaning. Interpret figurative language and author's use of language.** *

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Understand the meaning of words and phrases in Grade 9 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 9 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 9 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.
R.9.4.g Explain the influence of historical context on the . . . point of view of a written work.	**Analyze point of view in literary text.** Analyze a particular point of view or cultural experience reflected in a Grade 9 literary text drawn from a range of world literature.
R.9.4.g Explain the influence of historical context on the form, style, and point of view of a written work.	**Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 9 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 9 literary texts and/or artistic mediums.
R.9.4.h Compare and contrast authors' use of literary elements within a variety of genres.	**Analyze characters and plot in literary text.** * • Analyze how complex characters, such as those with multiple or conflicting motivations, are developed in Grade 9 literary text, as well as how characters' actions, motivations, and/or conflicts advance the development of the plot.

**This skill is related to the aligned standard*

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Identify and evaluate structural elements of the plot, such as subplots, parallel episodes, and/or climax, in Grade 9 literary text. **Analyze structural elements in literary text.** Analyze how the author structures text, orders events, and manipulates time to create effects (mystery, surprise) in one or more Grade 9 literary texts. * **Analyze point of view in literary text.** Analyze a particular point of view or cultural experience reflected in a Grade 9 literary text drawn from a range of world literature. * **Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 9 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 9 literary texts and/or artistic mediums.
R.9.4.i Analyze how the author's specific word choices and syntax impact the author's purpose.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 9 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	literary devices in Grade 9 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 9 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.
R.9.4.j Make inferences and draw conclusions using references from the text(s) for support.	**Cite textual evidence and make inferences.** • Cite several pieces of textual evidence that strongly support a statement about what a Grade 9 literary or informational text says explicitly or to support inferences made about the text. • Draw conclusions or make inferences in Grade 9 literary or informational text, based on textual evidence.
R.9.5.a Apply knowledge of text features and organizational patterns to understand, analyze, and gain meaning from texts.	**Analyze connections in informational text.** Analyze how an author develops an analysis or series of ideas or events in Grade 9 informational text, including how the author introduces, orders, and draws connections between each point.* **Analyze the development of ideas in informational text. Determine the author's point of view or purpose, and compare points of view between texts.** * • Analyze in detail the structure of Grade 9 informational text, including the role of particular sentences, paragraphs, and larger portions of text in developing and refining the author's ideas or claims. • Identify an author's point of view or purpose in Grade 9 informational text and analyze the rhetorical techniques an

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	author uses to support that point of view or purpose. • Compare the point of view of two authors and how each treats the same or similar topics in Grade 9 informational text. **Analyze data in quantitative and text formats in informational text.** Analyze Grade 9 informational text and integrate or translate quantitative or technical data into words or text as well as the reverse.*
R.9.5.b Make inferences and draw conclusions based on explicit and implied information using evidence from text as support.	**Cite textual evidence and make inferences.** * • Cite several pieces of textual evidence that strongly support a statement about what a Grade 9 literary or informational text says explicitly or to support inferences made about the text. • Draw conclusions or make inferences in Grade 9 literary or informational text, based on textual evidence.
R.9.5.c Analyze the author's . . . viewpoint . . .	**Analyze the development of ideas in informational text. Determine the author's point of view or purpose, and compare points of view between texts.** • Analyze in detail the structure of Grade 9 informational text, including the role of particular sentences, paragraphs, and larger portions of text in developing and refining the author's ideas or claims. • Identify an author's point of view or purpose in Grade 9 informational text and analyze the rhetorical techniques an author uses to support that point of view or purpose. • Compare the point of view of two authors and how each treats the same or

**This skill is related to the aligned standard*

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	similar topics in Grade 9 informational text.
R.9.5.d Recognize an author's intended purpose for writing and identify the main idea.	**Determine central idea and supporting ideas in informational text. Summarize the text.** * • Identify the central idea in Grade 9 informational text and analyze how specific details contribute to the development of the central idea. • Summarize Grade 9 informational text, identifying the central idea and supporting ideas. **Analyze the development of ideas in informational text. Determine the author's point of view or purpose, and compare points of view between texts.** * • Analyze in detail the structure of Grade 9 informational text, including the role of particular sentences, paragraphs, and larger portions of text in developing and refining the author's ideas or claims. • Identify an author's point of view or purpose in Grade 9 informational text and analyze the rhetorical techniques an author uses to support that point of view or purpose. • Compare the point of view of two authors and how each treats the same or similar topics in Grade 9 informational text.
R.9.5.e Summarize, paraphrase, and synthesize ideas, while maintaining meaning and a logical sequence of events, within and between texts.	**Determine central idea and supporting ideas in informational text. Summarize the text.** * • Identify the central idea in Grade 9 informational text and analyze how specific details contribute to the development of the central idea.

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Summarize Grade 9 informational text, identifying the central idea and supporting ideas.
R.9.5.g Identify a position/argument to be confirmed, disproved, or modified.	**Evaluate argument in informational text.** Identify and evaluate the argument and the specific claims that an author makes in Grade 9 informational text. Assess whether the reasoning and the evidence are sufficient to support the argument and/or any specific claims that an author makes. Identify false statements and flawed reasoning.*
R.9.5.h Evaluate clarity and accuracy of information.	**Evaluate argument in informational text.** Identify and evaluate the argument and the specific claims that an author makes in Grade 9 informational text. Assess whether the reasoning and the evidence are sufficient to support the argument and/or any specific claims that an author makes. Identify false statements and flawed reasoning.*
R.9.5.i Analyze, organize, and synthesize information in order to solve problems, answer questions, complete a task, or create a product.	**Cite textual evidence and make inferences.** * • Cite several pieces of textual evidence that strongly support a statement about what a Grade 9 literary or informational text says explicitly or to support inferences made about the text. • Draw conclusions or make inferences in Grade 9 literary or informational text, based on textual evidence. **Determine central idea and supporting ideas in informational text. Summarize the text.** * • Identify the central idea in Grade 9 informational text and analyze how

**This skill is related to the aligned standard*

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	specific details contribute to the development of the central idea. • Summarize Grade 9 informational text, identifying the central idea and supporting ideas. **Analyze connections in informational text.** Analyze how an author develops an analysis or series of ideas or events in Grade 9 informational text, including how the author introduces, orders, and draws connections between each point.* **Analyze the development of ideas in informational text. Determine the author's point of view or purpose, and compare points of view between texts.** * • Analyze in detail the structure of Grade 9 informational text, including the role of particular sentences, paragraphs, and larger portions of text in developing and refining the author's ideas or claims. • Identify an author's point of view or purpose in Grade 9 informational text and analyze the rhetorical techniques an author uses to support that point of view or purpose. • Compare the point of view of two authors and how each treats the same or similar topics in Grade 9 informational text. **Analyze data in quantitative and text formats in informational text.** Analyze Grade 9 informational text and integrate or translate quantitative or technical data into words or text as well as the reverse.*

Grade 9 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.9.5.j Differentiate between fact and opinion and evaluate their impact.	**Evaluate argument in informational text.** Identify and evaluate the argument and the specific claims that an author makes in Grade 9 informational text. Assess whether the reasoning and the evidence are sufficient to support the argument and/or any specific claims that an author makes. Identify false statements and flawed reasoning.*
R.9.5.k Analyze ideas within and between selections providing textual evidence.	**Analyze the development of ideas in informational text. Determine the author's point of view or purpose, and compare points of view between texts.** * • Analyze in detail the structure of Grade 9 informational text, including the role of particular sentences, paragraphs, and larger portions of text in developing and refining the author's ideas or claims. • Identify an author's point of view or purpose in Grade 9 informational text and analyze the rhetorical techniques an author uses to support that point of view or purpose. • Compare the point of view of two authors and how each treats the same or similar topics in Grade 9 informational text.

**This skill is related to the aligned standard*

Grade 10

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.10.3.a Use structural analysis of roots [and] affixes . . . to understand complex words.	**Use prefixes, suffixes, and word roots.** Use grade-appropriate prefixes, suffixes, and Greek and Latin word roots to understand the meaning of general academic and domain-specific words, particularly words used in history, social studies, science, and technical subjects. (Grade 10)
R.10.3.a Use structural analysis of roots, affixes, synonyms, and antonyms, to understand complex words.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 10)*
R.10.3.b Use context . . . to determine meanings of words and phrases.	**Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 10 words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.10.3.b Use context, structure, and connotations to determine meanings of words and phrases.	**Determine word meaning. Interpret author's use of language.** * • Understand the meaning of words and phrases in Grade 10 literary or informational text, including academic and/or domain-specific words. • Interpret an author's use of connotations, or shades of meaning, in Grade 10 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 10)*

**This skill is related to the aligned standard*

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.10.3.c Discriminate between connotative and denotative meanings and interpret the connotation.	**Determine word meaning. Interpret author's use of language.** * • Understand the meaning of words and phrases in Grade 10 literary or informational text, including academic and/or domain-specific words. • Interpret an author's use of connotations, or shades of meaning, in Grade 10 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 10 use literary techniques to develop themes and concepts appropriate to a particular historical situation.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 10)*
R.10.3.d Explain the meaning of common idioms.	**Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 10 literary or informational text.* **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 10 use literary techniques to develop themes and concepts appropriate to a particular historical situation.*

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Understand word relationships. Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 10)*
R.10.3.e Explain the meaning of literary and classical allusions and figurative language in text.	**Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 10 literary or informational text. **Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 10 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 10 literary texts and/or artistic mediums. **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 10)*
R.10.3.f Extend general and cross-curricular vocabulary through . . . reading	**Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 10 words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.10.3.f Extend general and cross-curricular vocabulary through speaking, listening, reading, and writing.	**Determine word meaning. Interpret author's use of language.** *

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Understand the meaning of words and phrases in Grade 10 literary or informational text, including academic and/or domain-specific words. • Interpret an author's use of connotations, or shades of meaning, in Grade 10 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Consult reference materials.** Use reference materials, such as a dictionary, glossary, or thesaurus, to find meanings, confirm pronunciations, or determine parts of speech. (Grade 10)*
R.10.4.a Make inferences and draw conclusions using references from the text(s) for support.	**Cite textual evidence and make inferences.** * • Cite several pieces of textual evidence that strongly support a statement about what a Grade 10 literary or informational text says explicitly or to support inferences made about the text. • Draw conclusions or make inferences in Grade 10 literary or informational text, based on textual evidence.
R.10.4.b Analyze the similarities and differences of techniques and literary forms represented in the literature of different cultures and eras.	**Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 10 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 10 literary texts and/or artistic mediums.

**This skill is related to the aligned standard*

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.10.4.c Interpret the cultural or social function of world and ethnic literature.	**Analyze point of view in literary text.** Analyze a particular point of view or cultural experience reflected in a Grade 10 literary text drawn from a range of world literature. *
R.10.4.d Analyze universal themes prevalent in the literature of different cultures.	**Determine theme in literary text. Summarize the text.** * • Identify or analyze the theme or central idea in one or more Grade 10 literary texts, including how specific details help develop the theme or central idea. • Summarize a story, poem, or other Grade 10 literary text. **Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 10 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 10 literary texts and/or artistic mediums.
R.10.4.e Examine a literary selection from several critical perspectives.	**Analyze point of view in literary text.** Analyze a particular point of view or cultural experience reflected in a Grade 10 literary text drawn from a range of world literature. *
R.10.4.f Critique how authors use key literary elements to contribute to meaning including, character development, theme, conflict, and archetypes.	**Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, such as subplots, parallel episodes, and/or climax, in Grade 10 literary text. * **Analyze structural elements in literary text.** Analyze how the author structures

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	text, orders events, and manipulates time to create effects (mystery, surprise) in one or more Grade 10 literary texts.*
R.10.4.g Interpret how themes are connected within and across texts.	**Determine theme in literary text. Summarize the text.** * • Identify or analyze the theme or central idea in one or more Grade 10 literary texts, including how specific details help develop the theme or central idea. • Summarize a story, poem, or other Grade 10 literary text. **Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 10 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 10 literary texts and/or artistic mediums.
R.10.4.h Explain the influence of historical context on the . . . point of view of a literary text.	**Analyze point of view in literary text.** Analyze a particular point of view or cultural experience reflected in a Grade 10 literary text drawn from a range of world literature.
R.10.4.h Explain the influence of historical context on the form, style, and point of view of a literary text(s).	**Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 10 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	one or more Grade 10 literary texts and/or artistic mediums.
R.10.4.i Evaluate how an author's specific word choices, syntax, tone, and voice shape the intended meaning of the text.	**Determine word meaning. Interpret author's use of language.** * • Understand the meaning of words and phrases in Grade 10 literary or informational text, including academic and/or domain-specific words. • Interpret an author's use of connotations, or shades of meaning, in Grade 10 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 10 literary or informational text.*
R.10.4.j Compare/contrast details in literary and informational nonfiction texts.	**Analyze subject matter and literary allusions across literary texts and/or artistic mediums.** * • Analyze presentation of Grade 10 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 10 literary texts and/or artistic mediums.
R.10.4.k Compare and contrast how literary devices convey a message and elicit a reader's emotions.	**Determine theme in literary text. Summarize the text.** * • Identify or analyze the theme or central idea in one or more Grade 10 literary texts, including how specific details help develop the theme or central idea. • Summarize a story, poem, or other Grade 10 literary text.

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Determine word meaning. Interpret author's use of language. * • Understand the meaning of words and phrases in Grade 10 literary or informational text, including academic and/or domain-specific words. • Interpret an author's use of connotations, or shades of meaning, in Grade 10 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Interpret figurative language.** Identify or interpret an author's use of figurative language and/or other literary devices in Grade 10 literary or informational text.* **Analyze structural elements in literary text.** Analyze how the author structures text, orders events, and manipulates time to create effects (mystery, surprise) in one or more Grade 10 literary texts.*
R.10.4.l Compare and contrast character development in a play to characterization in other literary forms.	**Analyze characters in literary text.** Analyze how complex characters, such as those with multiple or conflicting motivations, are developed in Grade 10 literary text, as well as how characters' actions, motivations, and/or conflicts advance the development of the plot.* **Analyze plot elements in literary text.** Identify and evaluate structural elements of the plot, such as subplots, parallel episodes, and/or climax, in Grade 10 literary text. *

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Analyze subject matter and literary allusions across literary texts and/or artistic mediums. * • Analyze presentation of Grade 10 artistic and/or literary subject matter in two or more artistic mediums. • Analyze how an author draws on and transforms themes or topics developed by major authors (Ovid, Shakespeare) in one or more Grade 10 literary texts and/or artistic mediums.
R.10.5.b Recognize an author's intended audience and purpose for writing.	**Analyze the development of ideas in informational text. Determine the author's point of view or purpose, and compare points of view between texts.** * • Analyze in detail the structure of Grade 10 informational text, including the role of particular sentences, paragraphs, and larger portions of text in developing and refining the author's ideas or claims. • Identify an author's point of view or purpose in Grade 10 informational text and analyze the rhetorical techniques an author uses to support that point of view or purpose. • Compare the point of view of two authors and how each treats the same or similar topics in Grade 10 informational text.
R.10.5.c Skim materials to develop an overview and locate information.	**Cite textual evidence and make inferences.** * • Cite several pieces of textual evidence that strongly support a statement about what a Grade 10 literary or informational text says explicitly or to support inferences made about the text.

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Draw conclusions or make inferences in Grade 10 literary or informational text, based on textual evidence. **Analyze data in quantitative and text formats in informational text.** Analyze Grade 10 informational text and integrate or translate quantitative or technical data into words or text as well as the reverse.*
R.10.5.d Compare and contrast informational texts for intent and content.	**Analyze the development of ideas in informational text. Determine the author's point of view or purpose, and compare points of view between texts.** * • Analyze in detail the structure of Grade 10 informational text, including the role of particular sentences, paragraphs, and larger portions of text in developing and refining the author's ideas or claims. • Identify an author's point of view or purpose in Grade 10 informational text and analyze the rhetorical techniques an author uses to support that point of view or purpose. • Compare the point of view of two authors and how each treats the same or similar topics in Grade 10 informational text. **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 10 use literary techniques to develop themes and concepts appropriate to a particular historical situation.*
R.10.5.e Interpret and use data and information in maps, charts, graphs, timelines, tables, and diagrams.	**Analyze data in quantitative and text formats in informational text.** Analyze Grade 10 informational text and integrate or

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	translate quantitative or technical data into words or text as well as the reverse.*
R.10.5.f Draw conclusions and make inferences on explicit and implied information using textual support as evidence.	**Cite textual evidence and make inferences.** • Cite several pieces of textual evidence that strongly support a statement about what a Grade 10 literary or informational text says explicitly or to support inferences made about the text. • Draw conclusions or make inferences in Grade 10 literary or informational text, based on textual evidence.
R.10.5.g Analyze and synthesize information in order to solve problems, answer questions, and generate new knowledge.	**Cite textual evidence and make inferences.** * • Cite several pieces of textual evidence that strongly support a statement about what a Grade 10 literary or informational text says explicitly or to support inferences made about the text. • Draw conclusions or make inferences in Grade 10 literary or informational text, based on textual evidence. **Determine central idea and supporting ideas in informational text. Summarize the text.** * • Identify the central idea in Grade 10 informational text and analyze how specific details contribute to the development of the central idea. • Summarize Grade 10 informational text, identifying the central idea and supporting ideas. **Analyze connections in informational text.** Analyze how an author develops an analysis or series of ideas or events in Grade 10 informational text, including how

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	the author introduces, orders, and draws connections between each point.* **Analyze the development of ideas in informational text. Determine the author's point of view or purpose, and compare points of view between texts.** * • Analyze in detail the structure of Grade 10 informational text, including the role of particular sentences, paragraphs, and larger portions of text in developing and refining the author's ideas or claims. • Identify an author's point of view or purpose in Grade 10 informational text and analyze the rhetorical techniques an author uses to support that point of view or purpose. • Compare the point of view of two authors and how each treats the same or similar topics in Grade 10 informational text. **Analyze data in quantitative and text formats in informational text.** Analyze Grade 10 informational text and integrate or translate quantitative or technical data into words or text as well as the reverse.*
R.10.5.h Analyze ideas within and between selections providing textual evidence.	**Analyze the development of ideas in informational text. Determine the author's point of view or purpose, and compare points of view between texts.** * • Analyze in detail the structure of Grade 10 informational text, including the role of particular sentences, paragraphs, and larger portions of text in developing and refining the author's ideas or claims. • Identify an author's point of view or purpose in Grade 10 informational text and analyze the rhetorical techniques an

Grade 10 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	author uses to support that point of view or purpose. • Compare the point of view of two authors and how each treats the same or similar topics in Grade 10 informational text. **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 10 use literary techniques to develop themes and concepts appropriate to a particular historical situation.*
R.10.5.i Summarize, paraphrase, and synthesize ideas, while maintaining meaning and a logical sequence of events, within and between texts.	**Determine central idea and supporting ideas in informational text. Summarize the text.** * • Identify the central idea in Grade 10 informational text and analyze how specific details contribute to the development of the central idea. • Summarize Grade 10 informational text, identifying the central idea and supporting ideas.

Grade 11

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.11.3.a Use structural analysis of roots [and] affixes . . . to understand complex words.	**Use prefixes, suffixes, and word roots.** Use grade-appropriate prefixes, suffixes, and Greek and Latin word roots to understand the meaning of general academic and domain-specific words, particularly words used in history, social studies, science, and technical subjects. (Grade 11)
R.11.3.a Use structural analysis of roots, affixes, synonyms, and antonyms to understand complex words.	**Understand word relationships** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 11)*
R.11.3.b Use context . . . to determine meanings of words and phrases.	**Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 11 words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.11.3.b Use context, structure, and connotations to determine meanings of words and phrases.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.

**This skill is related to the aligned standard*

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Understand word relationships Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 11)*
R.11.3.c Discriminate between connotative and denotative meanings and interpret the connotation.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 11 use literary techniques to develop themes and concepts appropriate to a particular historical situation.* **Understand word relationships** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 11)*

**This skill is related to the aligned standard*

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.11.3.d Explain the meaning of common idioms.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 11 use literary techniques to develop themes and concepts appropriate to a particular historical situation.* **Understand word relationships** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 11)*
R.11.3.e Explain the meaning of literary and classical allusions and figurative language in text.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words.

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Understand word relationships** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 11)*
R.11.3.f Extend general and cross-curricular vocabulary through . . . reading . . .	**Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 11 words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.11.3.f Extend general and cross-curricular vocabulary through speaking, listening, reading, and writing.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	choice on mood or tone in literary or informational text. **Consult reference materials.** Use reference materials, such as a dictionary, glossary, or thesaurus, to find meanings, confirm pronunciations, or determine parts of speech. (Grade 11)*
R.11.4.a Describe contributions of different cultures to the development of American literature.	**Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** * • Identify two or more themes or central ideas in a Grade 11 literary text and analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 11 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American literature and analyze how two or more Grade 11 texts from the same period treat similar themes or topics.
R.11.4.b Compare and contrast the development of American literature in its historical context.	**Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** * • Identify two or more themes or central ideas in a Grade 11 literary text and analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 11 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American literature and analyze how two or more

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Grade 11 texts from the same period treat similar themes or topics.
R.11.4.c Analyze American literature, as it reflects traditional and contemporary themes, motifs, universal characters, and genres.	**Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** * • Identify two or more themes or central ideas in a Grade 11 literary text and analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 11 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American literature and analyze how two or more Grade 11 texts from the same period treat similar themes or topics. **Analyze the impact of story elements in literary text.** Identify and evaluate the impact of author's choices regarding structural elements of Grade 11 literary text, such as setting, plot, and character development.*
R.11.4.d Interpret the social or cultural function of American literature.	**Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** * • Identify two or more themes or central ideas in a Grade 11 literary text and analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 11 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	literature and analyze how two or more Grade 11 texts from the same period treat similar themes or topics.
R.11.4.e Analyze how context and language structures convey an author's intent and viewpoint.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze point of view or author's purpose.** * • Identify point of view in Grade 11 literary text and analyze how it is conveyed through a tension between explicit and implicit meaning, such as satire, sarcasm, irony, or understatement. • Identify an author's point of view or purpose in Grade 11 informational text and analyze how style and content work together to make the rhetoric effective. • Compare opposing points of view on the same event, issue, or topic in Grade 11 informational text and evaluate each author's reasoning and presentation of relevant supporting evidence in the text.

**This skill is related to the aligned standard*

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Analyze literary elements in historical documents. Analyze how U.S. historical documents suitable to Grade 11 use literary techniques to develop themes and concepts appropriate to a particular historical situation.*
R.11.4.f Critique how authors use key literary elements to contribute to meaning including character development, theme, conflict, and archetypes within and across texts.	**Analyze the impact of story elements in literary text.** Identify and evaluate the impact of author's choices regarding structural elements of Grade 11 literary text, such as setting, plot, and character development.* **Analyze the structure of text.** * • Analyze the structure of Grade 11 informational text and evaluate the impact of the structure on the clarity, persuasiveness, and engagement of the text. • Analyze how the author structures specific parts within Grade 11 literary text and evaluate how those choices contribute to the whole structure, meaning, and aesthetic value of the text.
R.11.4.g Interpret how the sound and imagery of poetry support the subject, mood, and theme, and appeal to the reader's senses.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 11 use literary techniques to develop themes and concepts appropriate to a particular historical situation.* **Understand word relationships** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 11)*
R.11.4.h Evaluate how specific word choices, syntax, tone, and voice support the author's purpose.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 11 use literary

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	techniques to develop themes and concepts appropriate to a particular historical situation.* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 11 words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.11.4.i Analyze the use of dramatic conventions in American literature.	**Analyze the impact of story elements in literary text.** Identify and evaluate the impact of author's choices regarding structural elements of Grade 11 literary text, such as setting, plot, and character development.* **Analyze multiple interpretations of a story, drama, or poem.** Analyze multiple interpretations of Grade 11 literary text, including different print versions of a story or poem, as well as audio or video versions of a book or play. Evaluate how each version interprets the source text. *
R.11.4.j Generate and respond logically to literal, inferential, evaluative, synthesizing, and critical thinking questions about the text(s).	**Cite textual evidence.** Cite several pieces of textual evidence that strongly support a statement about what a Grade 11 literary or informational text says explicitly or to support inferences made about the text.* **Make inferences.** Draw conclusions or make inferences in Grade 11 literary or informational text.* **Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** *

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Identify two or more themes or central ideas in a Grade 11 literary text and analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 11 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American literature and analyze how two or more Grade 11 texts from the same period treat similar themes or topics. **Analyze the impact of story elements in literary text.** Identify and evaluate the impact of author's choices regarding structural elements of Grade 11 literary text, such as setting, plot, and character development.* **Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze the structure of text.** *

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Analyze the structure of Grade 11 informational text and evaluate the impact of the structure on the clarity, persuasiveness, and engagement of the text. • Analyze how the author structures specific parts within Grade 11 literary text and evaluate how those choices contribute to the whole structure, meaning, and aesthetic value of the text. **Analyze point of view or author's purpose.** * • Identify point of view in Grade 11 literary text and analyze how it is conveyed through a tension between explicit and implicit meaning, such as satire, sarcasm, irony, or understatement. • Identify an author's point of view or purpose in Grade 11 informational text and analyze how style and content work together to make the rhetoric effective. • Compare opposing points of view on the same event, issue, or topic in Grade 11 informational text and evaluate each author's reasoning and presentation of relevant supporting evidence in the text. **Analyze multiple interpretations of a story, drama, or poem.** Analyze multiple interpretations of Grade 11 literary text, including different print versions of a story or poem, as well as audio or video versions of a book or play. Evaluate how each version interprets the source text. *
R.11.4.k Compare/contrast literary and informational nonfiction texts.	**Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** *

**This skill is related to the aligned standard*

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Identify two or more themes or central ideas in a Grade 11 literary text and analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 11 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American literature and analyze how two or more Grade 11 texts from the same period treat similar themes or topics.
R.11.5.a Apply information from texts to clarify understanding of concepts.	**Cite textual evidence.** Cite several pieces of textual evidence that strongly support a statement about what a Grade 11 literary or informational text says explicitly or to support inferences made about the text.*
R.11.5.d Paraphrase and synthesize ideas within and between texts.	**Analyze complex ideas in informational text.** Evaluate the overall impact of how an author develops a complex set of ideas or sequence of events in Grade 11 informational text, with particular attention to how specific individuals, ideas, or events interact.* **Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** * • Identify two or more themes or central ideas in a Grade 11 literary text and analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 11 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	literature and analyze how two or more Grade 11 texts from the same period treat similar themes or topics.
R.11.5.e Draw conclusions and make inferences on explicit and implied information using textual support.	**Make inferences.** Draw conclusions or make inferences in Grade 11 literary or informational text.
R.11.5.f Analyze multiple texts addressing the same topic to determine how authors reach similar or different conclusions.	**Analyze point of view or author's purpose.** * • Identify point of view in Grade 11 literary text and analyze how it is conveyed through a tension between explicit and implicit meaning, such as satire, sarcasm, irony, or understatement. • Identify an author's point of view or purpose in Grade 11 informational text and analyze how style and content work together to make the rhetoric effective. • Compare opposing points of view on the same event, issue, or topic in Grade 11 informational text and evaluate each author's reasoning and presentation of relevant supporting evidence in the text. **Analyze multiple sources of information presented in varied formats.** Analyze Grade 11 informational text and translate, integrate, and evaluate multiple sources of information presented in varied formats and media. *
R.11.5.g Analyze false premises, claims, counterclaims, and other evidence in persuasive writing.	**Analyze point of view or author's purpose.** * • Identify point of view in Grade 11 literary text and analyze how it is conveyed through a tension between explicit and implicit meaning, such as satire, sarcasm, irony, or understatement. • Identify an author's point of view or purpose in Grade 11 informational text

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	and analyze how style and content work together to make the rhetoric effective. • Compare opposing points of view on the same event, issue, or topic in Grade 11 informational text and evaluate each author's reasoning and presentation of relevant supporting evidence in the text. **Delineate and evaluate reasoning in historical documents.** Trace and evaluate an author's premises, reasoning, and evidence in U.S. historical text suitable to Grade 11.*
R.11.5.h Recognize and analyze use of ambiguity, contradiction, paradox, irony, sarcasm, overstatement, and understatement in text.	**Determine word meaning. Interpret figurative language and author's use of language.** * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Delineate and evaluate reasoning in historical documents.** Trace and evaluate an author's premises, reasoning, and evidence in U.S. historical text suitable to Grade 11.*

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Understand word relationships Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 11)* **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 11 words used in literary texts, grade-appropriate content areas, and other academic contexts.*
R.11.5.i Generate and respond logically to literal, inferential, evaluative, synthesizing, and critical thinking questions about the text(s).	**Cite textual evidence.** Cite several pieces of textual evidence that strongly support a statement about what a Grade 11 literary or informational text says explicitly or to support inferences made about the text.* **Make inferences.** Draw conclusions or make inferences in Grade 11 literary or informational text.* **Determine multiple central ideas in an informational text. Summarize the text.** * • Identify two or more central ideas of a Grade 11 informational text and analyze the interaction of those ideas in the text. • Summarize Grade 11 informational text, identifying the central idea and the supporting ideas. **Analyze complex ideas in informational text.** Evaluate the overall impact of how an author develops a complex set of ideas or sequence of events in Grade 11 informational text, with particular attention to how specific individuals, ideas, or events interact.*

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Determine word meaning. Interpret figurative language and author's use of language. * • Understand the meaning of words and phrases in Grade 11 literary or informational text, including academic and/or domain-specific words. • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 11 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 11 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text. **Analyze the structure of text.** * • Analyze the structure of Grade 11 informational text and evaluate the impact of the structure on the clarity, persuasiveness, and engagement of the text. • Analyze how the author structures specific parts within Grade 11 literary text and evaluate how those choices contribute to the whole structure, meaning, and aesthetic value of the text. **Analyze point of view or author's purpose.** * • Identify point of view in Grade 11 literary text and analyze how it is conveyed through a tension between explicit and implicit meaning, such as satire, sarcasm, irony, or understatement.

**This skill is related to the aligned standard*

Grade 11 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Identify an author's point of view or purpose in Grade 11 informational text and analyze how style and content work together to make the rhetoric effective. • Compare opposing points of view on the same event, issue, or topic in Grade 11 informational text and evaluate each author's reasoning and presentation of relevant supporting evidence in the text. **Analyze multiple sources of information presented in varied formats.** Analyze Grade 11 informational text and translate, integrate, and evaluate multiple sources of information presented in varied formats and media. * **Delineate and evaluate reasoning in historical documents.** Trace and evaluate an author's premises, reasoning, and evidence in U.S. historical text suitable to Grade 11.* **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 11 use literary techniques to develop themes and concepts appropriate to a particular historical situation.*

Grade 12

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
R.12.3.a Use structural analysis of roots [and] affixes . . . to understand complex words.	**Use prefixes, suffixes, and word roots.** Use grade-appropriate prefixes, suffixes, and Greek and Latin word roots to understand the meaning of general academic and domain-specific words, particularly words used in history, social studies, science, and technical subjects. (Grade 12)
R.12.3.a Use structural analysis of roots, affixes, synonyms, and antonyms, to understand complex words.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 12)*
R.12.3.b Use context . . . to determine meanings of words and phrases.	**Determine word meaning.** Understand the meaning of words and phrases in Grade 12 literary or informational text, including academic and/or domain-specific words. **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 12 words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.12.3.b Use context, structure, and connotations to determine meanings of words and phrases.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 12)* **Interpret figurative language and author's use of language.** * • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 12 literary or informational text.

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Interpret an author's use of connotations, or shades of meaning, in Grade 12 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.
R.12.3.c Discriminate between connotative and denotative meanings and interpret the connotation.	**Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 12 use literary techniques to develop themes and concepts appropriate to a particular historical situation.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 12)* **Interpret figurative language and author's use of language.** * • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 12 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 12 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.
R.12.3.d Explain the meaning of common idioms, and literary and classical allusions in text.	**Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 12)*

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Interpret figurative language and author's use of language. * • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 12 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 12 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.
R.12.3.e Expand general and cross-curricular vocabulary through . . . reading	**Determine word meaning.** Understand the meaning of words and phrases in Grade 12 literary or informational text, including academic and/or domain-specific words. **Use general academic and domain-specific vocabulary.** Demonstrate knowledge of Grade 12 words used in literary texts, grade-appropriate content areas, and other academic contexts.
R.12.4.b Analyze how authors use key literary elements to contribute to meaning and interpret how themes are connected across texts.	**Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** * • Identify two or more themes or central ideas in a Grade 12 literary text and analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 12 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American literature and analyze how two or more

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Grade 12 texts from the same period treat similar themes or topics. **Analyze the impact of story elements in literary text.** Identify and evaluate the impact of author's choices regarding structural elements of Grade 12 literary text, such as setting, plot, and character development.* **Analyze the structure of text.** * • Analyze the structure of Grade 12 informational text and evaluate the impact of the structure on the clarity, persuasiveness, and engagement of the text. • Analyze how the author structures specific parts within Grade 12 literary text and evaluate how those choices contribute to the whole structure, meaning, and aesthetic value of the text. **Analyze multiple interpretations of a story, drama, or poem.** Analyze multiple interpretations of Grade 12 literary text, including different print versions of a story or poem, as well as audio or video versions of a book or play. Evaluate how each version interprets the source text. *
R.12.4.e Interpret how the sound and imagery of poetry support the subject, mood, and theme, and appeal to the reader's senses.	**Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** * • Identify two or more themes or central ideas in a Grade 12 literary text and analyze the interaction of those themes or ideas in the text.

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Summarize a story, poem, or other Grade 12 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American literature and analyze how two or more Grade 12 texts from the same period treat similar themes or topics. **Analyze the structure of text.** * • Analyze the structure of Grade 12 informational text and evaluate the impact of the structure on the clarity, persuasiveness, and engagement of the text. • Analyze how the author structures specific parts within Grade 12 literary text and evaluate how those choices contribute to the whole structure, meaning, and aesthetic value of the text. **Interpret figurative language and author's use of language.** * • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 12 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 12 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.
R.12.4.f Compare and contrast traditional and contemporary poems from many cultures.	**Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** * • Identify two or more themes or central ideas in a Grade 12 literary text and

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 12 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American literature and analyze how two or more Grade 12 texts from the same period treat similar themes or topics. **Analyze multiple interpretations of a story, drama, or poem.** Analyze multiple interpretations of Grade 12 literary text, including different print versions of a story or poem, as well as audio or video versions of a book or play. Evaluate how each version interprets the source text. *
R.12.4.g Evaluate how dramatic conventions contribute to the theme and effect of plays from American, British, and other cultures.	**Determine multiple themes or central ideas in a literary text. Summarize the text. Compare themes or topics across two or more texts.** * • Identify two or more themes or central ideas in a Grade 12 literary text and analyze the interaction of those themes or ideas in the text. • Summarize a story, poem, or other Grade 12 literary text. • Demonstrate knowledge of eighteenth- through early twentieth–century foundational works of American literature and analyze how two or more Grade 12 texts from the same period treat similar themes or topics. **Analyze the impact of story elements in literary text.** Identify and evaluate the impact of author's choices regarding structural elements of Grade 12 literary

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	text, such as setting, plot, and character development.* **Analyze the structure of text.** * • Analyze the structure of Grade 12 informational text and evaluate the impact of the structure on the clarity, persuasiveness, and engagement of the text. • Analyze how the author structures specific parts within Grade 12 literary text and evaluate how those choices contribute to the whole structure, meaning, and aesthetic value of the text. **Analyze multiple interpretations of a story, drama, or poem.** Analyze multiple interpretations of Grade 12 literary text, including different print versions of a story or poem, as well as audio or video versions of a book or play. Evaluate how each version interprets the source text. *
R.12.4.h Use critical thinking to generate and respond logically to literal, inferential, and evaluative questions about the text(s).	**Cite textual evidence and make inferences.** * • Cite several pieces of textual evidence that strongly support a statement about what a Grade 12 literary or informational text says explicitly or to support inferences made about the text. • Draw conclusions or make inferences in Grade 12 literary or informational text.
R.12.5.a Use critical thinking to generate and respond logically to literal [and] inferential . . . questions about the text(s).	**Cite textual evidence and make inferences.** • Cite several pieces of textual evidence that strongly support a statement about what a Grade 12 literary or informational text says explicitly or to support inferences made about the text.

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Draw conclusions or make inferences in Grade 12 literary or informational text.
R.12.5.a Use critical thinking to generate and respond logically to literal, inferential, and evaluative questions about the text(s).	**Analyze complex ideas and details, including multiple central ideas, in informational text. Summarize the text.** * • Evaluate the overall impact of how an author develops a complex set of ideas or sequence of events in Grade 12 informational text, with particular attention to how specific individuals, ideas, or events interact. • Identify two or more central ideas of a Grade 12 informational text and analyze the interaction of those ideas in the text. • Summarize Grade 12 informational text, identifying the central idea and the supporting ideas. **Determine word meaning.** Understand the meaning of words and phrases in Grade 12 literary or informational text, including academic and/or domain-specific words.* **Analyze the structure of text.** * • Analyze the structure of Grade 12 informational text and evaluate the impact of the structure on the clarity, persuasiveness, and engagement of the text. • Analyze how the author structures specific parts within Grade 12 literary text and evaluate how those choices contribute to the whole structure, meaning, and aesthetic value of the text. **Analyze point of view or author's purpose.** *

**This skill is related to the aligned standard*

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Identify point of view in Grade 12 literary text and analyze how it is conveyed through a tension between explicit and implicit meaning, such as satire, sarcasm, irony, or understatement. • Identify an author's point of view or purpose in Grade 12 informational text and analyze how style and content work together to make the rhetoric effective. • Compare opposing points of view on the same event, issue, or topic in Grade 12 informational text and evaluate each author's reasoning and presentation of relevant supporting evidence in the text. **Analyze multiple sources of information presented in varied formats.** Analyze Grade 12 informational text and translate, integrate, and evaluate multiple sources of information presented in varied formats and media. * **Delineate and evaluate reasoning in historical documents.** Trace and evaluate an author's premises, reasoning, and evidence in U.S. historical text suitable to Grade 12.* **Analyze literary elements in historical documents.** Analyze how U.S. historical documents suitable to Grade 12 use literary techniques to develop themes and concepts appropriate to a particular historical situation.* **Interpret figurative language and author's use of language.** * • Identify or interpret an author's use of figurative language and/or other

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	literary devices in Grade 12 literary or informational text. • Interpret an author's use of connotations, or shades of meaning, in Grade 12 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.
R.12.5.b Identify and synthesize resources to make decisions, complete tasks, and solve specific problems.	**Cite textual evidence and make inferences.** * • Cite several pieces of textual evidence that strongly support a statement about what a Grade 12 literary or informational text says explicitly or to support inferences made about the text. • Draw conclusions or make inferences in Grade 12 literary or informational text. **Analyze complex ideas and details, including multiple central ideas, in informational text. Summarize the text.** * • Evaluate the overall impact of how an author develops a complex set of ideas or sequence of events in Grade 12 informational text, with particular attention to how specific individuals, ideas, or events interact. • Identify two or more central ideas of a Grade 12 informational text and analyze the interaction of those ideas in the text. • Summarize Grade 12 informational text, identifying the central idea and the supporting ideas. **Analyze multiple sources of information presented in varied formats.** Analyze Grade 12 informational text and translate, integrate, and evaluate multiple sources of

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	information presented in varied formats and media. *
R.12.5.c Analyze multiple texts addressing the same topic to determine how authors reach similar or different conclusions.	**Analyze point of view or author's purpose.** * • Identify point of view in Grade 12 literary text and analyze how it is conveyed through a tension between explicit and implicit meaning, such as satire, sarcasm, irony, or understatement. • Identify an author's point of view or purpose in Grade 12 informational text and analyze how style and content work together to make the rhetoric effective. • Compare opposing points of view on the same event, issue, or topic in Grade 12 informational text and evaluate each author's reasoning and presentation of relevant supporting evidence in the text.
R.12.5.d Recognize and analyze use of ambiguity, contradiction, paradox, irony, overstatement, and understatement in text.	**Delineate and evaluate reasoning in historical documents.** Trace and evaluate an author's premises, reasoning, and evidence in U.S. historical text suitable to Grade 12.* **Understand word relationships.** Recognize synonyms and antonyms. Demonstrate understanding of idioms, shades of meaning, and figurative language, such as analogies, metaphors, or similes. (Grade 12)* **Interpret figurative language and author's use of language.** * • Identify or interpret an author's use of figurative language and/or other literary devices in Grade 12 literary or informational text.

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Interpret an author's use of connotations, or shades of meaning, in Grade 12 literary or informational text. Interpret the impact of an author's specific word choice on mood or tone in literary or informational text.
R.12.5.e Analyze false premises, claims, counterclaims, and other evidence in persuasive writing.	**Analyze the structure of text.** * • Analyze the structure of Grade 12 informational text and evaluate the impact of the structure on the clarity, persuasiveness, and engagement of the text. • Analyze how the author structures specific parts within Grade 12 literary text and evaluate how those choices contribute to the whole structure, meaning, and aesthetic value of the text. **Analyze point of view or author's purpose.** * • Identify point of view in Grade 12 literary text and analyze how it is conveyed through a tension between explicit and implicit meaning, such as satire, sarcasm, irony, or understatement. • Identify an author's point of view or purpose in Grade 12 informational text and analyze how style and content work together to make the rhetoric effective. • Compare opposing points of view on the same event, issue, or topic in Grade 12 informational text and evaluate each author's reasoning and presentation of relevant supporting evidence in the text. **Delineate and evaluate reasoning in historical documents.** Trace and evaluate an author's premises, reasoning, and

Grade 12 (continued)

English Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	evidence in U.S. historical text suitable to Grade 12.*
RS.12.8.a Frame, analyze, and synthesize information to solve problems, answer questions, and generate new knowledge.	**Analyze multiple sources of information presented in varied formats.** Analyze Grade 12 informational text and translate, integrate, and evaluate multiple sources of information presented in varied formats and media. *

Correlation of Mathematics Standards of Learning for Virginia Public Schools to i-Ready Diagnostic

Grade K

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.K.1.a The student will tell how many are in a given set of 20 or fewer objects by counting orally; and	Count up to 20 objects arranged in a line, rectangular array, a circle, or a scattered configuration.
NS.K.1.b The student will . . . represent numbers from 0 through 20	Count up to 20 objects arranged in a line, rectangular array, a circle, or a scattered configuration.
NS.K.2.a The student, given . . . sets, each set containing 10 or fewer concrete objects, will compare and describe one set as having more, fewer, or the same number of objects as the other set(s); and	Compare two sets with up to 10 objects.
NS.K.2.a The student, given no more than three sets, each set containing 10 or fewer concrete objects, will compare and describe one set as having more, fewer, or the same number of objects as the other set(s); and	Count up to 20 objects arranged in a line, rectangular array, a circle, or a scattered configuration.*
NS.K.2.b The student, given . . . sets, each set containing 10 or fewer concrete objects, will compare . . . sets . . .	Compare two sets with up to 10 objects.
NS.K.2.b The student, given no more than three sets, each set containing 10 or fewer concrete objects, will compare and order sets from least to greatest and greatest to least	Count up to 20 objects arranged in a line, rectangular array, a circle, or a scattered configuration.*
NS.K.3.a The student will count forward orally by ones from 0 to 100	Count forward by 1s from any number less than 100. Count by 1s to 100.*
NS.K.3.b The student will count backward orally by ones when given any number between 1 and 10	Count backward from 10 to 0.
NS.K.3.d The student will count forward by tens . . . to 100	Count by 10s to 100.

**This skill is related to the aligned standard*

Correlation of Mathematics Standards of Learning for Virginia Public Schools to i-Ready Diagnostic (continued)

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.K.4.a The student will recognize and describe with fluency part-whole relationships for numbers up to 5; and	Find different number pairs with the same sum for sums to 10.* Find combinations of 10 and identify missing addends.* Relate addition and subtraction to part-part-whole concepts.*
NS.K.4.b The student will investigate and describe part-whole relationships for numbers up to 10	Find different number pairs with the same sum for sums to 10.* Find combinations of 10 and identify missing addends.* Relate addition and subtraction to part-part-whole concepts.*
NS.K.5 The student will investigate fractions by representing and solving practical problems involving equal sharing with two sharers.	Partition circles and rectangles into halves and fourths, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*.*
CE.K.6 The student will . . . solve single-step story and picture problems with . . . differences within 10 . . .	Use equations to solve take away problems with numbers to 10.
CE.K.6 The student will model and solve single-step story and picture problems with sums to 10 . . .	Use equations to solve joining problems with numbers to 10.
CE.K.6 The student will model and solve single-step story and picture problems with sums to 10 and differences within 10, using concrete objects.	Identify the number that is one more than a given number to ten.* Identify the number that is one less than a given number to ten.* Use a number line to count up or back to add or subtract 1 or 2 from numbers to 20.*

**This skill is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Count back to subtract 1, 2, or 3 from numbers up to 10.* Add and subtract within 5.*
MG.K.7 The student will recognize the attributes of a penny, nickel, dime, and quarter and identify the number of pennies equivalent to a nickel, a dime, and a quarter.	Identify and compare the values of coin combinations (pennies, nickels, dimes, quarters).*
MG.K.9 The student will compare two objects . . . using direct comparisons, according to one or more of the following attributes: length (longer, shorter), height (taller, shorter) . . .	Directly compare the length of two objects and describe the difference (longer, taller, shorter, thicker).
MG.K.9 The student will compare two objects . . . using direct comparisons, according to one or more of the following attributes: length (longer, shorter), height (taller, shorter), weight (heavier, lighter) . . . volume (more, less) . . .	Identify measurable attributes of objects using informal language (how long, wide, thick, deep, short or tall they are, or how much they weigh or hold).
MG.K.9 The student will compare two objects or events, using direct comparisons, according to one or more of the following attributes: length (longer, shorter), height (taller, shorter), weight (heavier, lighter), temperature (hotter, colder), volume (more, less), and time (longer, shorter).	Compare, contrast, and classify attributes of two-dimensional shapes (circle, square, rectangle, triangle, hexagon) and three-dimensional shapes (cube, cone, cylinder, sphere).* Describe parts of two-dimensional shapes using informal language such as the number of sides and corners.*
MG.K.10.a The student will identify and describe plane figures (circle, triangle, square, and rectangle)	Identify basic two-dimensional shapes (square, circle, rectangle, triangle). Compare, contrast, and classify attributes of two-dimensional shapes (circle, square, rectangle, triangle, hexagon) and three-

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	dimensional shapes (cube, cone, cylinder, sphere).* Identify shapes as two-dimensional ("flat") or three-dimensional ("solid").* Describe parts of two-dimensional shapes using informal language such as the number of sides and corners.*
MG.K.10.b The student will compare the size (smaller, larger) and shape of plane figures (circle, triangle, square, and rectangle); and	Compare, contrast, and classify attributes of two-dimensional shapes (circle, square, rectangle, triangle, hexagon) and three-dimensional shapes (cube, cone, cylinder, sphere).*
MG.K.10.c The student will . . . identify representations of plane figures (circle, triangle, square, and rectangle) regardless of their positions and orientations in space	Identify basic two-dimensional shapes (square, circle, rectangle, triangle).
MG.K.10.c The student will describe the location of one object relative to another (above, below, next to) and identify representations of plane figures (circle, triangle, square, and rectangle) regardless of their positions and orientations in space	Describe the relative positions of shapes and objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.*
PS.K.11.a The student will collect, organize, and represent data; and	Organize, represent, and interpret several categories of data in a picture or bar graph with up to 3 categories.*
PS.K.11.b The student will read and interpret data in object graphs, picture graphs, and tables	Organize, represent, and interpret several categories of data in a picture or bar graph with up to 3 categories.*
PFA.K.12 The student will sort and classify objects according to one attribute.	Sort objects according to one or more attributes.

Correlation of Mathematics Standards of Learning for Virginia Public Schools to i-Ready Diagnostic (continued)

Grade 1

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.1.1.a The student will count forward orally by ones to 110, starting at any number between 0 and 110	Recognize numerals up to 100.*
NS.1.1.b The student will write the numerals 0 to 110 in sequence and out-of-sequence	Recognize numerals up to 100.*
NS.1.1.c The student will count backward orally by ones when given any number between 1 and 30; and	Count backward by 1s from any number less than 100.*
NS.1.1.d The student will count forward orally by . . . fives . . . to determine the total number of objects to [100]	Count by 5s to 100 using a chart or models.
NS.1.1.d The student will count forward orally by ones, twos, fives, and tens to determine the total number of objects to 110	Solve addition problems by counting on with numbers to 10.* Count by 2s to 20 using a chart or models.*
NS.1.2.a The student, given up to 110 objects, will group a collection into tens and ones and write the corresponding numeral	Use base-ten models to represent a two-digit number and identify the corresponding numeral.
NS.1.2.b The student, given up to 110 objects, will compare two numbers between 0 and 110 represented pictorially or with concrete objects, using the words greater than, less than or equal to; and	Compare and order two-digit numbers.*
NS.1.4.a The student will represent and solve practical problems involving equal sharing with two or four sharers; and	Partition circles and rectangles into halves and fourths, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*.*
NS.1.4.b The student will represent and name fractions for halves and fourths, using models	Partition circles and rectangles into halves and fourths, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*.*

**This skill is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
CE.1.6 The student will . . . solve single-step story and picture problems using . . . subtraction . . .	Solve subtraction problems for separation or take away situations.
CE.1.6 The student will create and solve single-step story and picture problems using addition and subtraction within 20.	Solve addition problems by counting on with numbers to 10.* Solve addition problems by counting on.* Identify and find sums for doubles addition facts.* Solve basic subtraction facts by counting back to subtract 1, 2, or 3.* Solve basic subtraction facts by counting on.* Add within 20.* Subtract within 20.* Solve word problems involving the addition of three whole numbers whose sum is less than or equal to 20 using drawings, objects, or equations.*
CE.1.7.b The student will demonstrate fluency with addition and subtraction within 10	Solve addition problems by counting on with numbers to 10.* Identify and find sums for doubles addition facts.* Solve basic subtraction facts by counting back to subtract 1, 2, or 3.* Solve basic subtraction facts by counting on.*

**This skill is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.1.8 The student will determine the value of a collection of like coins (pennies, nickels, or dimes) whose total value is 100 cents or less.	Solve problems involving counting dollar bills and coins, and use the dollar symbol.*
MG.1.9.a The student will investigate the passage of time and tell time to the hour and half-hour, using analog and digital clocks; and	Tell time to the nearest five minutes.*
MG.1.11.a The student will identify . . . plane figures (triangles, squares, rectangles, and circles) according to number of sides, vertices, and angles; and	Identify defining attributes of two-dimensional shapes.
MG.1.11.b The student will identify and describe representations of circles, squares, rectangles, and triangles in different environments, regardless of orientation, and explain reasoning	Identify defining attributes of two-dimensional shapes.*
PS.1.12.a The student will collect, organize, and represent various forms of data using tables, picture graphs, and object graphs; and	Organize, represent, and interpret several categories of data in a picture or bar graph with up to 3 categories.*
PS.1.12.b The student will read and interpret data displayed in tables, picture graphs, and object graphs, using the vocabulary more, less, fewer, greater than, less than, and equal to	Organize, represent, and interpret several categories of data in a picture or bar graph with up to 3 categories.*
PFA.1.13 The student will sort and classify concrete objects according to one or two attributes.	Identify defining attributes of two-dimensional shapes.*
PFA.1.14 The student will identify, describe, extend, create, and transfer growing and repeating patterns.	Count by 2s to 20 using a chart or models.* Count by 5s to 100 using a chart or models.*

**This skill is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
PFA.1.15 The student will demonstrate an understanding of equality through the use of the equal symbol.	Demonstrate an understanding of the equal sign and determine if equations involving addition and subtraction are true or false.*

**This skill is related to the aligned standard*

Grade 2

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.2.1.a The student will read, write, and identify the place and value of each digit in a three-digit numeral, with and without models	Model three-digit numbers. Identify the value of the digits in three-digit numbers. Read and write whole numbers through hundreds using number words, standard form, and expanded form.*
NS.2.1.b The student will identify the number that is 10 more, 10 less, 100 more, and 100 less than a given number up to 999	Count and group by 2s, 5s, and 10s to 100.* Count and skip-count by 5s, 10s, and 100s to 1,000.*
NS.2.1.c The student will compare and order whole numbers between 0 and 999; and	Compare and order three-digit numbers.*
NS.2.1.d The student will round two-digit numbers to the nearest ten	Round whole numbers to the nearest ten and hundred.*
NS.2.2.a The student will count forward by twos, fives, and tens to 120, starting at various multiples of 2, 5, or 10	Model three-digit numbers. Identify the value of the digits in three-digit numbers.
NS.2.2.b The student will count backward by tens from 120; and	Count backward by 1s from any number less than 100.* Count and skip-count by 5s, 10s, and 100s to 1,000.*
NS.2.2.c The student will use objects to determine whether a number is even or odd	Demonstrate an understanding that a group of objects is an even number of objects if it can be divided into complete pairs and is odd if it cannot; express even numbers as doubles facts. Identify odd and even numbers up to 20.*

**This skill is related to the aligned standard*

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.2.4.a The student will name and write fractions represented by a set, region, or length model for halves, fourths, eighths, thirds, and sixths	Identify fractions (1/2, 1/4, 3/4) as parts of a whole using pictures.*
NS.2.4.b The student will represent fractional parts with models and with symbols; and	Identify fractions (1/2, 1/4, 3/4) as parts of a whole using pictures.* Identify fractions that name part of a whole (denominators of 2, 3, 4, 6, 8, 10, 12).* Identify fractions that name part of a set (denominators of 2, 3, 4, 6, 8, 10, 12).* Partition circles and rectangles into two, three, or four equal shares and describe the shares or whole using words (*halves, thirds, fourths, two halves, three thirds, four fourths*.)*
NS.2.4.c The student will compare the unit fractions for halves, fourths, eighths, thirds, and sixths, with models	Identify fractions (1/2, 1/4, 3/4) as parts of a whole using pictures.* Compare two fractions with the same numerator or the same denominator using a visual fraction model.* Partition circles and rectangles into two, three, or four equal shares and describe the shares or whole using words (*halves, thirds, fourths, two halves, three thirds, four fourths*.)*
CE.2.5.a The student will recognize and use the relationships between addition and subtraction to solve single-step practical problems, with whole numbers to 20; and	Solve subtraction problems for separation or take away situations and check the solution using addition.* Use addition to check subtraction equations for part-part-whole situations.*

**This skill is related to the aligned standard*

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Solve subtraction problems for comparison situations.*
CE.2.5.b The student will demonstrate fluency with . . . subtraction within 20	Subtract within 20.
CE.2.5.b The student will demonstrate fluency with addition . . . within 20	Add within 20.
CE.2.5.b The student will demonstrate fluency with addition and subtraction within 20	Solve subtraction problems for separation or take away situations and check the solution using addition.* Use addition to check subtraction equations for part-part-whole situations.* Solve subtraction problems for comparison situations.*
CE.2.6.b The student will determine sums and differences, using various methods; and	Solve subtraction problems for separation or take away situations and check the solution using addition.* Use addition to check subtraction equations for part-part-whole situations.* Solve subtraction problems for comparison situations.* Add two-digit numbers with regrouping using models.* Subtract two-digit numbers with regrouping.* Subtract two-digit numbers without regrouping.*

**This skill is related to the aligned standard*

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
CE.2.6.c The student will create and solve single-step and two-step practical problems involving addition and subtraction	Solve subtraction problems for separation or take away situations and check the solution using addition.* Use addition to check subtraction equations for part-part-whole situations.* Solve subtraction problems for comparison situations.* Solve subtraction problems by counting back 1, 2, or 3.* Add two-digit numbers with regrouping using models.* Add two-digit numbers with regrouping.* Subtract a one-digit number from a two-digit number.*
MG.2.7.a The student will count and compare a collection of pennies, nickels, dimes, and quarters whose total value is $2.00 or less; and	Identify and compare the values of coin combinations (pennies, nickels, dimes, quarters).* Solve problems involving counting dollar bills and coins, and use the dollar symbol.*
MG.2.7.b The student will use the cent symbol, dollar symbol, and decimal point to write a value of money	Solve problems involving counting dollar bills and coins, and use the dollar symbol.*
MG.2.8.a The student will . . . measure length to the nearest inch; and	Use a ruler to measure length in inches.
MG.2.8.b The student will estimate and measure weight to the nearest pound	Use a balance scale to measure and compare weights in ounces and pounds.*

**This skill is related to the aligned standard*

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.2.9 The student will tell time and write time to the nearest five minutes, using analog and digital clocks.	Tell time to the nearest five minutes.
MG.2.13 The student will identify, describe, compare, and contrast plane and solid figures (circles/spheres, squares/cubes, and rectangles/rectangular prisms).	Compare and contrast attributes of solid figures including numbers of vertices, faces, and edges.* Use attributes, including vertices, angles, and sides, to identify, describe, sort, and classify two-dimensional shapes.* Identify squares, rectangles, parallelograms, rhombuses, and trapezoids, and recognize them as examples of quadrilaterals. Identify quadrilaterals that do not belong to any of these subcategories.*
PS.2.14 The student will use data from probability experiments to predict outcomes when the experiment is repeated.	Show measurements of objects in a line plot with a scale in whole-number units.*
PS.2.15.a The student will collect, organize, and represent data in pictographs and bar graphs; and	Create or interpret a picture graph with a single-unit scale to represent data that include multiple categories.* Construct a bar graph with a single-unit scale to represent data that includes multiple categories, and solve simple joining, separating, and comparing problems based on the data displayed.*
PS.2.15.b The student will read and interpret data represented in pictographs and bar graphs	Create or interpret a picture graph with a single-unit scale to represent data that include multiple categories.* Construct a bar graph with a single-unit scale to represent data that includes multiple categories, and solve simple joining,

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	separating, and comparing problems based on the data displayed.*
PFA.2.17 The student will demonstrate an understanding of equality through the use of the equal symbol and the use of the not equal symbol.	Demonstrate an understanding of the equal sign and determine if equations involving addition and subtraction are true or false.*

Grade 3

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.3.1.a The student will read, write, and identify the place and value of each digit in a six-digit whole number, with and without models	Read and write whole numbers through hundred millions in expanded form and standard form and identify the value of the digits.* Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.* Read and write whole numbers through hundreds using number words, standard form, and expanded form.*
NS.3.1.b The student will round whole numbers . . . to the nearest ten, [and] hundred . . .	Round whole numbers to the nearest ten and hundred.
NS.3.1.c The student will compare and order whole numbers, each 9,999 or less	Compare and order three-digit numbers.* Read and write whole numbers through hundred millions in expanded form and standard form and identify the value of the digits.* Compare and order numbers through hundred millions.* Read and write whole numbers through hundred thousands in expanded form and standard form and identify the value of the digits.* Compare and order numbers through hundred thousands.*
NS.3.2.a The student will name and write fractions and mixed numbers represented by a model	Identify fractions that name part of a whole (denominators of 2, 3, 4, 6, 8, 10, 12).*

**This skill is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Identify fractions that name part of a set (denominators of 2, 3, 4, 6, 8, 10, 12).* Identify fractions shown on a number line.* Represent unit fractions (1/*b*) on number lines by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts.*
NS.3.2.b The student will represent fractions and mixed numbers with models and symbols; and	Identify fractions that name part of a whole (denominators of 2, 3, 4, 6, 8, 10, 12).* Identify fractions that name part of a set (denominators of 2, 3, 4, 6, 8, 10, 12).* Identify fractions shown on a number line.* Represent unit fractions (1/*b*) on number lines by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts.*
NS.3.2.c The student will compare fractions having like . . . denominators . . . with models	Compare two fractions with the same numerator or the same denominator using a visual fraction model.
CE.3.3.a The student will estimate and determine the sum or difference of two whole numbers; and	Write and solve two-step real-world problems using addition, subtraction, multiplication, and division.* Add three-digit numbers with regrouping.* Subtract three-digit numbers with regrouping.*
CE.3.3.b The student will create and solve single-step and multistep practical problems	Write and solve two-step real-world problems using addition, subtraction, multiplication, and division.*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
involving sums or differences of two whole numbers, each 9,999 or less	Use the four operations and drawings to solve one-step word problems involving masses or volumes expressed in like units.* Add three-digit numbers with regrouping.* Subtract three-digit numbers with regrouping.*
CE.3.4.a The student will represent multiplication and division through 10 × 10, using a variety of approaches . . .	Know multiplication/division fact families.
CE.3.4.a The student will represent multiplication and division through 10 × 10, using a variety of approaches and models	Write multiplication sentences to represent equal groups and repeated addition.* Write a multiplication sentence to represent objects in a rectangular array, recognizing that the order of factors does not affect the product.* Solve problems involving partitioning in equal groups, including identifying the remainder.* Solve problems involving sharing equal groups, including identifying the remainder.* Solve one- and two-step real-world problems involving division of a two-digit number by a one-digit number.* Know multiplication facts through 9 times 9.*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Multiply 10 or a multiple of 10 by a one-digit number.* Know division facts through 81 divided by 9.*
CE.3.4.b The student will create and solve single-step practical problems that involve multiplication and division through 10 x 10; and	Write multiplication sentences to represent equal groups and repeated addition.* Write a multiplication sentence to represent objects in a rectangular array, recognizing that the order of factors does not affect the product.* Solve problems involving partitioning in equal groups, including identifying the remainder.* Solve problems involving sharing equal groups, including identifying the remainder.* Solve one- and two-step real-world problems involving division of a two-digit number by a one-digit number.* Write and solve two-step real-world problems using addition, subtraction, multiplication, and division.* Use the four operations and drawings to solve one-step word problems involving masses or volumes expressed in like units.* Know multiplication facts through 9 times 9.*

**This skill is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Multiply 10 or a multiple of 10 by a one-digit number.* Know division facts through 81 divided by 9.*
CE.3.4.c The student will demonstrate fluency with multiplication facts of 0, 1, 2, 5, and 10; and	Know multiplication/division fact families.* Know multiplication facts through 9 times 9.* Determine the unknown whole number in a multiplication or division equation relating three whole numbers.*
CE.3.4.d The student will solve single-step practical problems involving multiplication of whole numbers, where one factor is 99 or less and the second factor is 5 or less	Write multiplication sentences to represent equal groups and repeated addition.* Write a multiplication sentence to represent objects in a rectangular array, recognizing that the order of factors does not affect the product.* Know multiplication facts through 9 times 9.* Multiply 10 or a multiple of 10 by a one-digit number.*
CE.3.5 The student will solve practical problems that involve addition and subtraction with proper fractions having like denominators of 12 or less.	Add and subtract fractions with like denominators. Solve word problems by adding and subtracting fractions with like denominators that refer to the same whole.*
MG.3.6.a The student will determine the value of a collection of bills and coins whose total value is $5.00 or less	Solve problems with dollar bills and coins and use dollar and cent symbols.

**This skill is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.3.6.b The student will compare the value of two sets of coins or two sets of coins and bills; and	Solve problems with dollar bills and coins and use dollar and cent symbols.*
MG.3.6.c The student will make change from $5.00 or less	Solve problems with dollar bills and coins and use dollar and cent symbols.*
MG.3.7.a The student will estimate and use U.S. Customary and metric units to measure length to the nearest ½ inch, inch, foot, yard, centimeter, and meter; and	Use a ruler to measure length to 1/4 inch.* Show data on a line plot with a scale that includes whole-number units.* Given lengths measured to wholes, halves, and fourths inches, display the data in a line plot.*
MG.3.7.b The student will estimate and use U.S. Customary and metric units to measure liquid volume in cups, pints, quarts, gallons, and liters	Use the four operations and drawings to solve one-step word problems involving masses or volumes expressed in like units.*
MG.3.8.a The student will estimate and measure the distance around a polygon in order to determine its perimeter using U.S. Customary and metric units; and	Use side lengths to solve problems involving perimeter.*
MG.3.8.b The student will . . . count the number of square units needed to cover a given surface in order to determine its area	Measure the area of a rectangle by covering it with unit squares and counting them, and show that the area is the same as would be found by multiplying the side lengths.
MG.3.9.a The student will tell time to the nearest minute . . .	Tell time to the minute and measure time intervals in minutes.
MG.3.9.a The student will tell time to the nearest minute, using analog . . . clocks; and	Solve word problems involving addition and subtraction of time intervals in minutes involving elapsed time less than 60 minutes.
MG.3.9.b The student will solve practical problems related to elapsed time . . .	Solve word problems involving addition and subtraction of time intervals in minutes involving elapsed time less than 60 minutes.

**This skill is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.3.9.b The student will solve practical problems related to elapsed time in one-hour increments within a 12- hour period; and	Tell time to the minute and measure time intervals in minutes.*
MG.3.9.c The student will identify equivalent periods of time and solve practical problems related to equivalent periods of time	Tell time to the minute and measure time intervals in minutes.* Solve word problems involving addition and subtraction of time intervals in minutes involving elapsed time less than 60 minutes.*
MG.3.11 The student will identify and draw representations of points, lines, line segments, rays, and angles.	Identify points, lines, line segments, rays, and planes in two-dimensional figures.* Identify acute, obtuse, right, and straight angles and perpendicular and parallel lines.*
MG.3.12.b The student will identify and name polygons . . .	Identify squares, rectangles, parallelograms, rhombuses, and trapezoids, and recognize them as examples of quadrilaterals. Identify quadrilaterals that do not belong to any of these subcategories.
MG.3.12.c The student will combine and subdivide polygons with three or four sides and name the resulting polygon(s)	Combine and separate two-dimensional shapes to create other two-dimensional shapes and predict the results.*
PS.3.15.a The student will collect, organize, and represent data in pictographs or bar graphs; and	Construct and interpret scaled bar graphs and scaled picture graphs.*
PS.3.15.b The student will read and interpret data represented in pictographs and bar graphs	Construct and interpret scaled bar graphs and scaled picture graphs.*
PFA.3.16 The student will identify [and] describe . . . patterns found in . . . numbers . . .	Find and explain arithmetic patterns, including patterns in the addition table and multiplication table, and explain the patterns using the properties of operations.

**This skill is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
PFA.3.17 The student will create equations to represent equivalent mathematical relationships.	Know multiplication/division fact families.* Express whole numbers as fractions and identify fractions that are equivalent to whole numbers.* Use models to find equivalent fractions.* Solve a division problem by rewriting it as an unknown factor problem. *

**This skill is related to the aligned standard*

Grade 4

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.4.1.a The student will read, write, and identify the place and value of each digit in a nine-digit whole number	Read and write whole numbers through hundred millions in expanded form and standard form and identify the value of the digits.* Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.*
NS.4.1.b The student will compare and order whole numbers expressed through millions; and	Read and write whole numbers through hundred millions in expanded form and standard form and identify the value of the digits.* Compare and order numbers through hundred millions.* Read and write whole numbers through hundred thousands in expanded form and standard form and identify the value of the digits.* Compare and order numbers through hundred thousands.*
NS.4.1.c The student will round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand	Round whole numbers to the nearest ten, hundred, thousand, ten thousand, and hundred thousand.*
NS.4.2.a The student will compare . . . fractions . . . with . . . models	Compare two fractions with different numerators and different denominators using a visual fraction model.
NS.4.2.a The student will compare . . . fractions . . . without models	Compare two fractions with unlike denominators.
NS.4.2.b The student will represent equivalent fractions; and	Recognize and generate equivalent fractions.

**This skill is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Express a fraction with denominator 10 as an equivalent fraction with denominator 100 and add two fractions with respective denominators 10 and 100.*
NS.4.2.c The student will identify the division statement that represents a fraction, with models and in context	Understand a fraction as the division of the numerator by the denominator. Recognize and generate equivalent fractions.*
NS.4.3.a The student will read [and] write . . . decimals expressed through thousandths	Read and write decimals to thousandths in standard form, word form, and expanded form.
NS.4.3.b The student will round decimals to the nearest whole number	Round decimals to any place.*
NS.4.3.c The student will compare and order decimals; and	Compare and order decimals through hundredths. Compare two decimals to hundredths, including amounts of money.*
NS.4.3.d The student will given a model, write the decimal and fraction equivalents	Express fractions with denominators of 10 or 100 as decimals.*
CE.4.4.a The student will demonstrate fluency with multiplication facts . . . and the corresponding division facts	Know multiplication/division fact families.
CE.4.4.a The student will demonstrate fluency with multiplication facts through 12 x 12, and the corresponding division facts	Solve one- and two-step real-world problems involving division of a two-digit number by a one-digit number.* Know multiplication facts through 9 times 9.* Know division facts through 81 divided by 9.*

**This skill is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.*
CE.4.4.b The student will . . . determine . . . differences . . . of whole numbers	Subtract multi-digit numbers.
CE.4.4.b The student will . . . determine . . . products of whole numbers	Multiply two-digit numbers by one-digit numbers. Multiply three-digit numbers by one-digit numbers. Multiply two-digit whole numbers by two-digit whole numbers.
CE.4.4.b The student will . . . determine sums . . . of whole numbers	Add multi-digit numbers.
CE.4.4.b The student will estimate and determine sums, differences, and products of whole numbers	Write and solve equations with variables to determine the answers to multi-step real-world problems using the four operations and whole numbers.*
CE.4.4.c The student will estimate and determine quotients of whole numbers, with and without remainders; and	Identify the remainder in a problem involving division of a two-digit number by a one-digit number.* Write and solve equations with variables to determine the answers to multi-step real-world problems using the four operations and whole numbers.* Divide up to four-digit whole numbers by one-digit whole numbers.* Interpret the remainder in a real-world problem involving division of up to a three-digit number by a one-digit number.*

**This skill is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
CE.4.4.d The student will create and solve single-step and multistep practical problems involving addition, subtraction, and multiplication, and single-step practical problems involving division with whole numbers	Write and solve equations with variables to determine the answers to multi-step real-world problems using the four operations and whole numbers. Solve real-world problems involving elapsed time.* Add multi-digit numbers.* Subtract multi-digit numbers.* Multiply a whole number by a power of 10 or a multiple of 10.* Multiply two-digit numbers by one-digit numbers.* Multiply three-digit numbers by one-digit numbers.* Divide up to four-digit whole numbers by one-digit whole numbers.* Multiply or divide whole numbers to solve real-world problems involving multiplicative comparisons.* Interpret the remainder in a real-world problem involving division of up to a three-digit number by a one-digit number.*
CE.4.5.a The student will determine common . . . factors . . .	Identify factor pairs of whole numbers up to 100.
CE.4.5.a The student will determine common multiples . . .	Identify multiples of whole numbers with products to 100.

**This skill is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
CE.4.5.a The student will determine common multiples and factors, including least common multiple and greatest common factor	Determine whether a whole number from 1 to 100 is prime or composite.*
CE.4.5.b The student will add and subtract . . . mixed numbers having like . . . denominators; and	Add and subtract mixed numbers with like denominators.
CE.4.5.b The student will add and subtract fractions . . . having like . . . denominators; and	Add and subtract fractions with like denominators.
CE.4.5.b The student will add and subtract fractions and mixed numbers having . . . unlike denominators; and	Add and subtract fractions and mixed numbers with unlike denominators.
CE.4.5.b The student will add and subtract fractions and mixed numbers having like and unlike denominators; and	Solve word problems by adding and subtracting fractions with like denominators that refer to the same whole.*
CE.4.5.c The student will solve single-step practical problems involving addition and subtraction with fractions and mixed numbers	Add and subtract fractions with like denominators.* Solve word problems by adding and subtracting fractions with like denominators that refer to the same whole.*
CE.4.6.a The student will add and subtract with decimals; and	Add and subtract decimals through hundredths. Solve one- and two-step real-world problems involving addition, subtraction, and multiplication of decimals.*
CE.4.6.b The student will solve single-step and multistep practical problems involving addition and subtraction with decimals	Solve one- and two-step real-world problems involving addition, subtraction, and multiplication of decimals. Add and subtract decimals through hundredths.*

**This skill is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.4.7 The student will solve practical problems that involve determining . . . area in U.S. Customary and metric units.	Use formulas to find the area of rectangles and squares.
MG.4.7 The student will solve practical problems that involve determining perimeter . . . in U.S. Customary and metric units.	Use side lengths to solve problems involving perimeter.
MG.4.8.a The student will . . . measure length and describe the result in U.S. Customary and metric units	Use a ruler to measure length to 1/4 inch.
MG.4.8.a The student will estimate and measure length and describe the result in U.S. Customary and metric units	Convert and compare customary units of length (inches, feet, yards, miles).* Convert and compare metric units of length (millimeters, centimeters, meters, kilometers).*
MG.4.8.b The student will estimate and measure weight/mass and describe the result in U.S. Customary and metric units	Use a balance scale to measure and compare weights in ounces and pounds.* Convert customary units of weight and metric units of mass.*
MG.4.8.c The student will given the equivalent measure of one unit, identify equivalent measures of length, weight/mass, and liquid volume between units within the U.S. Customary system; and	Convert and compare customary units of length (inches, feet, yards, miles).* Convert customary units of weight and metric units of mass.* Convert customary and metric units of capacity.*
MG.4.9 The student will solve practical problems related to elapsed time in hours and minutes within a 12-hour period.	Solve real-world problems involving elapsed time.
MG.4.10.a The student will identify . . . points, lines, line segments, [and] rays . . .	Identify points, lines, line segments, rays, and planes in two-dimensional figures.

**This skill is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.4.10.a The student will identify and describe . . . [perpendicular and parallel] lines . . . and angles, including endpoints and vertices; and	Identify acute, obtuse, right, and straight angles and perpendicular and parallel lines.
MG.4.10.b The student will identify and describe intersecting, parallel, and perpendicular lines	Identify points, lines, line segments, rays, and planes in two-dimensional figures.* Identify acute, obtuse, right, and straight angles and perpendicular and parallel lines.*
MG.4.11 The student will identify, describe, compare, and contrast plane and solid figures according to their characteristics (number of angles, vertices, edges, and the number and shape of faces) using concrete models and pictorial representations.	Classify two-dimensional figures based on their parallel and perpendicular lines or angle measures.* Sort and classify triangles according to their side lengths and angle measures.*
MG.4.12 The student will classify quadrilaterals as a parallelograms, rectangles, squares, rhombi, and/or trapezoids.	Identify squares, rectangles, parallelograms, rhombuses, and trapezoids, and recognize them as examples of quadrilaterals. Identify quadrilaterals that do not belong to any of these subcategories. Classify two-dimensional figures based on their parallel and perpendicular lines or angle measures.*
PS.4.13.a The student will determine the likelihood of an outcome of a simple event	Use frequency data of an event to approximate the probability of that event.
PS.4.13.b The student will represent probability as a number between 0 and 1, inclusive; and	Express the likelihood of the occurrence of an event as a number between 0 and 1.
PS.4.14.a The student will collect, organize, and represent data in bar graphs and line graphs	Construct line plots using data in fractional units of 1/2, 1/4, and 1/8, and solve problems involving addition and subtraction of fractions by using the information in the line plots.*

**This skill is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
PS.4.14.b The student will interpret data represented in bar graphs and line graphs; and	Construct line plots using data in fractional units of 1/2, 1/4, and 1/8, and solve problems involving addition and subtraction of fractions by using the information in the line plots.*
PFA.4.15 The student will identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables.	Describe, extend, analyze, and make generalizations about numeric patterns.*

**This skill is related to the aligned standard*

Grade 5

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.5.1 The student, given a decimal through thousandths, will round to the nearest whole number, tenth, or hundredth.	Round decimals to any place.
NS.5.2.a The student will represent and identify equivalencies among fractions and decimals, with and without models; and	Express fractions with denominators of 10 or 100 as decimals.*
NS.5.2.b The student will compare . . . decimals in a given set, from least to greatest and greatest to least	Compare two decimals through thousandths.
NS.5.3.a The student will identify . . . prime and composite numbers; and	Determine whether a whole number from 1 to 100 is prime or composite.
NS.5.3.a The student will identify and describe the characteristics of prime and composite numbers; and	Identify factor pairs of whole numbers up to 100.* Identify multiples of whole numbers with products to 100.*
NS.5.3.b The student will identify . . . even and odd numbers	Identify odd and even numbers up to 20.
NS.5.3.b The student will identify and describe the characteristics of even and odd numbers	Demonstrate an understanding that a group of objects is an even number of objects if it can be divided into complete pairs and is odd if it cannot; express even numbers as doubles facts.*
CE.5.4 The student will create and solve single-step . . . practical problems involving . . . multiplication, and division of whole numbers.	Solve multi-step, real-world problems involving conversion among measurement units within a system.
CE.5.4 The student will create and solve single-step and multistep practical problems involving addition, subtraction, multiplication, and division of whole numbers.	Multiply multi-digit numbers by two-digit numbers.* Divide four-digit numbers by two-digit numbers using models.*

**This skill is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
CE.5.5.a The student will . . . determine the . . . quotient of two numbers involving decimals; and	Divide decimals to hundredths.
CE.5.5.a The student will . . . determine the product . . . of two numbers involving decimals; and	Multiply a decimal number by a whole number. Multiply decimal numbers through hundredths.
CE.5.5.a The student will estimate and determine the product and quotient of two numbers involving decimals; and	Solve one- and two-step real-world problems involving addition, subtraction, and multiplication of decimals.*
CE.5.5.b The student will create and solve single-step and multistep practical problems involving addition, subtraction, and multiplication of decimals . . .	Solve one- and two-step real-world problems involving addition, subtraction, and multiplication of decimals.
CE.5.5.b The student will create and solve single-step and multistep practical problems involving addition, subtraction, and multiplication of decimals, and create and solve single-step practical problems involving division of decimals	Add and subtract decimals through hundredths.* Multiply a decimal number by a whole number.* Multiply decimal numbers through hundredths.* Divide decimals to hundredths.* Multiply and divide multi-digit decimals by positive powers of 10 and demonstrate an understanding of the patterns involved in multiplying and dividing by powers of 10 by identifying and explaining the patterns.*
CE.5.6.a The student will solve single-step and multistep practical problems involving addition and subtraction with fractions and mixed numbers; and	Add and subtract fractions and mixed numbers with unlike denominators.*

**This skill is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Solve word problems involving the addition and subtraction of fractions with like and unlike denominators using fraction models or equations, and use benchmark fractions to assess the reasonableness of the solution. *
CE.5.6.b The student will solve single-step practical problems involving multiplication of a whole number, limited to 12 or less, and a proper fraction, with models	Multiply a whole number by a fraction.* Multiply fractions. * Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.*
CE.5.7 The student will simplify whole number numerical expressions using the order of operations.	Write and evaluate expressions with grouping symbols.
MG.5.8.a The student will solve practical problems that involve perimeter, area, and volume in standard units of measure; and	Use formulas to find the volume of cubes and rectangular prisms.* Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.* Find the volume of composite figures to solve mathematical and real-world problems.* Use unit cubes to find the volume of right rectangular prisms.*
MG.5.8.b The student will differentiate among perimeter, area, and volume and identify whether the application of the concept of perimeter, area, or volume is appropriate for a given situation	Use formulas to find the volume of cubes and rectangular prisms.*

**This skill is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.5.9.a The student will given the equivalent measure of one unit, identify equivalent measurements within the metric system; and	Convert and compare customary units of weight and metric units of mass involving whole-number measures.* Convert and compare customary and metric units of capacity involving whole-number measures.* Solve multi-step, real-world problems involving conversion among measurement units within a system.*
MG.5.9.b The student will solve practical problems involving length, mass, and liquid volume using metric units	Solve multi-step, real-world problems involving conversion among measurement units within a system.*
MG.5.10 The student will identify and describe the diameter, radius, chord, and circumference of a circle.	Know the formulas for the area and circumference of a circle and use them to solve problems.*
MG.5.11 The student will solve practical problems related to elapsed time in hours and minutes within a 24-hour period.	Solve real-world problems involving elapsed time.*
MG.5.12 The student will classify and measure right, acute, obtuse, and straight angles.	Identify points, lines, line segments, rays, and planes in two-dimensional figures.* Identify acute, obtuse, right, and straight angles and perpendicular and parallel lines.* Measure angles using a virtual protractor.*
MG.5.13.a The student will classify triangles as right, acute, or obtuse and equilateral, scalene, or isosceles; and	Sort and classify triangles according to their side lengths and angle measures. Classify two-dimensional figures based on their parallel and perpendicular lines or angle measures.*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.5.13.b The student will investigate the sum of the interior angles in a triangle and determine an unknown angle measure	Use addition and subtraction to find unknown angle measures shown in a diagram.*
MG.5.14.b The student will investigate and describe the results of combining and subdividing polygons	Solve problems involving composing and decomposing polygons into rectangles and triangles to find area.*
PS.5.15 The student will determine the probability of an outcome by constructing a sample space or using the Fundamental (Basic) Counting Principle.	Develop and use a probability model with equal outcomes to determine probabilities of simple and compound events.* Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.* Represent sample spaces for simple and compound events using organized lists, tables, and tree diagrams.*
PS.5.16.a The student, given a practical problem, will represent data in line plots and stem-and-leaf plots	Construct and interpret a line plot using data in fractional units.*
PS.5.16.b The student, given a practical problem, will interpret data represented in line plots and stem-and-leaf plots; and	Construct and interpret a line plot using data in fractional units.*
PS.5.16.c The student, given a practical problem, will compare data represented in a line plot with the same data represented in a stem-and-leaf plot	Construct and interpret a line plot using data in fractional units.* Identify what types of data are best displayed in a line plot, histogram, or box plot.*
PS.5.17.a The student, given a practical context, will describe mean, median, and mode as measures of center	Find, use, and interpret mean, median, mode, range, and maximum and minimum.* Use mean, median, mode, range, and maximum and minimum to describe and compare data sets.*

**This skill is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Find, use, and interpret mean, median, mode, range, and maximum and minimum using data in box plots.* Use interquartile range to describe variability of data and explain deviations from overall pattern in context.*
PS.5.17.b The student, given a practical context, will describe mean as fair share	Find, use, and interpret mean, median, mode, range, and maximum and minimum.* Use mean, median, mode, range, and maximum and minimum to describe and compare data sets.* Find, use, and interpret mean, median, mode, range, and maximum and minimum using data in box plots.*
PS.5.17.c The student, given a practical context, will describe the range of a set of data as a measure of spread; and	Find, use, and interpret mean, median, mode, range, and maximum and minimum.* Use mean, median, mode, range, and maximum and minimum to describe and compare data sets.* Find, use, and interpret mean, median, mode, range, and maximum and minimum using data in box plots.* Use interquartile range to describe variability of data and explain deviations from overall pattern in context.*
PS.5.17.d The student, given a practical context, will determine the mean, median, mode, and range of a set of data	Find, use, and interpret mean, median, mode, range, and maximum and minimum.*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Use mean, median, mode, range, and maximum and minimum to describe and compare data sets.* Find, use, and interpret mean, median, mode, range, and maximum and minimum using data in box plots.* Use interquartile range to describe variability of data and explain deviations from overall pattern in context.*
PFA.5.18 The student will . . . describe, . . . express, and extend number patterns . . .	Describe, extend, analyze, and make generalizations about numeric patterns.
PFA.5.18 The student will identify, describe, create, express, and extend number patterns found in objects, pictures, numbers and tables.	Generate two numerical patterns using two given rules, identify relationships between corresponding terms, and form and graph ordered pairs using corresponding terms.*
PFA.5.19.a The student will investigate and describe the concept of variable	Read, write, and identify variable expressions or parts of expressions, using mathematical terms (sum, term, product, factor, quotient, coefficient).* Evaluate expressions for given values of the variables.* Use substitution to determine whether a solution to an equation is true.* Write an inequality of the form $x > c$ or $x < c$ to represent a real-world or mathematical problem.* Write a variable expression to represent a real-world or mathematical problem.*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$, where p, q, and x are all nonnegative rational numbers.* Write an equation in two variables for a real-world problem in which a dependent and independent variable change in relationship to one another.* Show the relationship between an independent and dependent variable with graphs, tables, and equations.*
PFA.5.19.b The student will write an equation to represent a given mathematical relationship, using a variable	Write a variable expression to represent a real-world or mathematical problem. Read, write, and identify variable expressions or parts of expressions, using mathematical terms (sum, term, product, factor, quotient, coefficient).* Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$, where p, q, and x are all nonnegative rational numbers.* Write an equation in two variables for a real-world problem in which a dependent and independent variable change in relationship to one another.* Show the relationship between an independent and dependent variable with graphs, tables, and equations.*
PFA.5.19.c The student will use an expression with a variable to represent	Read, write, and identify variable expressions or parts of expressions, using

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
a given verbal expression involving one operation; and	mathematical terms (sum, term, product, factor, quotient, coefficient).* Write a variable expression to represent a real-world or mathematical problem.* Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$, where p, q, and x are all nonnegative rational numbers.*
PFA.5.19.d The student will create a problem situation based on a given equation, using a single variable and one operation	Read, write, and identify variable expressions or parts of expressions, using mathematical terms (sum, term, product, factor, quotient, coefficient).* Write a variable expression to represent a real-world or mathematical problem.*

**This skill is related to the aligned standard*

Grade 6

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.6.1 The student will represent relationships between quantities using ratios, and will use appropriate notations, such as a/b . . . and a:b.	Write a ratio to describe the relationship between two quantities using the forms *a:b* and *a/b*.
NS.6.2.a The student will represent and determine equivalencies among . . . decimals, and percents; and	Express decimals as percents and percents as decimals.
NS.6.2.a The student will represent and determine equivalencies among fractions . . . and percents; and	Express fractions as percents and percents as fractions.
NS.6.2.b The student will compare and order positive rational numbers	Represent and compare positive and negative rational numbers as points on the number line.* Locate pairs of rational numbers and plot points with rational number coordinates in all four quadrants on a coordinate plane. * Locate and plot points in all four quadrants of the coordinate plane and use the points to find horizontal and vertical distances.* Order rational numbers in real-world contexts.*
NS.6.3.a The student will identify and represent integers	Represent and compare positive and negative rational numbers as points on the number line.* Locate pairs of rational numbers and plot points with rational number coordinates in all four quadrants on a coordinate plane. * Locate and plot points in all four quadrants of the coordinate plane and use the points to find horizontal and vertical distances.*

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.6.3.b The student will compare and order integers; and	Represent and compare positive and negative rational numbers as points on the number line.* Locate pairs of rational numbers and plot points with rational number coordinates in all four quadrants on a coordinate plane. * Locate and plot points in all four quadrants of the coordinate plane and use the points to find horizontal and vertical distances.* Order rational numbers in real-world contexts.*
NS.6.3.c The student will identify and describe absolute value of integers	Understand absolute value and interpret it in the context of a real-world situation.* Distinguish comparisons of absolute value from statements about order.*
NS.6.4 The student will recognize and represent patterns with whole number exponents and perfect squares.	Write and evaluate numerical expressions with whole-number exponents.* Multiply and divide multi-digit decimals by positive powers of 10 and demonstrate an understanding of the patterns involved in multiplying and dividing by powers of 10 by identifying and explaining the patterns.*
CE.6.5.a The student will . . . divide fractions . . .	Divide fractions.
CE.6.5.b The student will solve single-step and multistep practical problems involving addition, subtraction, multiplication, and division of fractions and mixed numbers; and	Use unit cubes to find the volume of right rectangular prisms with fractional edge lengths.*

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Use a formula to find the volume of right rectangular prisms with fractional edge lengths.* Divide fractions.*
CE.6.5.c The student will solve multistep practical problems involving addition, subtraction, multiplication, and division of decimals	Multiply multi-digit decimals.* Divide multi-digit decimals.*
CE.6.6.a The student will add, subtract, multiply, and divide integers	Solve multi-step problems involving all forms of rational numbers.* Perform multi-step computations using all operations with both positive and negative rational numbers.*
CE.6.6.b The student will solve practical problems involving operations with integers; and	Solve multi-step problems involving all forms of rational numbers.* Perform multi-step computations using all operations with both positive and negative rational numbers.*
CE.6.6.c The student will simplify numerical expressions involving integers	Use properties of operations to write and identify equivalent expressions.*
MG.6.7.a The student will derive # (pi)	Know the formulas for the area and circumference of a circle and use them to solve problems.* Use formulas to find the area and circumference of circles.*
MG.6.7.b The student will solve problems, including practical problems, involving circumference and area of a circle; and	Use formulas to find the area and circumference of circles.
MG.6.7.c The student will solve problems, including practical problems, involving area and perimeter of triangles and rectangles	Solve problems involving composing and decomposing polygons into rectangles and triangles to find area.*

**This skill is related to the aligned standard*

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.6.8.a The student will identify the components of the coordinate plane; and	Locate and plot points in all four quadrants of the coordinate plane and use the points to find horizontal and vertical distances.*
MG.6.8.b The student will identify the coordinates of a point and graph ordered pairs in a coordinate plane	Locate pairs of rational numbers and plot points with rational number coordinates in all four quadrants on a coordinate plane. Locate and plot points in all four quadrants of the coordinate plane and use the points to find horizontal and vertical distances. Represent and compare positive and negative rational numbers as points on the number line.*
PS.6.11.a The student will represent the mean of a data set graphically as the balance point; and	Find, use, and interpret mean, median, mode, range, and maximum and minimum.* Use mean, median, mode, range, and maximum and minimum to describe and compare data sets.* Find, use, and interpret mean, median, mode, range, and maximum and minimum using data in box plots.* Use interquartile range to describe variability of data and explain deviations from overall pattern in context.*
PS.6.11.b The student will determine the effect on measures of center when a single value of a data set is added, removed, or changed	Find, use, and interpret mean, median, mode, range, and maximum and minimum.* Use mean, median, mode, range, and maximum and minimum to describe and compare data sets.*

**This skill is related to the aligned standard*

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Find, use, and interpret mean, median, mode, range, and maximum and minimum using data in box plots.* Use interquartile range to describe variability of data and explain deviations from overall pattern in context.*
PFA.6.12.a The student will represent a proportional relationship between two quantities, including those arising from practical situations	Write an equation in two variables for a real-world problem in which a dependent and independent variable change in relationship to one another. Solve problems involving unit rate.* Solve problems using ratio and rate reasoning.* Show the relationship between an independent and dependent variable with graphs, tables, and equations.*
PFA.6.12.b The student will . . . [use] the unit rate of a proportional relationship . . . to find a missing value . . .	Solve problems involving unit rate.
PFA.6.12.c The student will determine whether a proportional relationship exists between two quantities; and	Solve problems involving unit rate.* Solve problems using ratio and rate reasoning.*
PFA.6.12.d The student will make connections between and among representations of a proportional relationship between two quantities using verbal descriptions, ratio tables, and graphs	Compare two different proportional relationships expressed in different forms, such as tables, graphs, or equations.*
PFA.6.13 The student will solve one-step linear equations in one variable, including practical problems that require the	Solve real-world and mathematical problems by writing and solving equations

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
solution of a one-step linear equation in one variable.	of the form $x + p = q$ and $px = q$, where p, q, and x are all nonnegative rational numbers.*
PFA.6.14.a The student will represent a practical situation with a linear inequality in one variable; and	Write an inequality of the form $x > c$ or $x < c$ to represent a real-world or mathematical problem.* Represent inequalities in the form $x > c$ or $x < c$ on number lines.*
PFA.6.14.b The student will solve one-step linear inequalities in one variable, involving addition or subtraction, and graph the solution on a number line	Write an inequality of the form $x > c$ or $x < c$ to represent a real-world or mathematical problem.* Represent inequalities in the form $x > c$ or $x < c$ on number lines.*

Grade 7

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.7.1.a The student will investigate and describe the concept of negative exponents for powers of ten	Use properties of integer exponents to simplify and evaluate expressions.*
NS.7.1.b The student will compare and order numbers greater than zero written in scientific notation	Compare numbers expressed as a single digit times an integer power of 10.*
NS.7.1.c The student will . . . order rational numbers	Order rational numbers in real-world contexts.
NS.7.1.c The student will compare and order rational numbers	Represent and compare positive and negative rational numbers as points on the number line.* Use rational numbers to approximate and compare irrational numbers.*
NS.7.1.d The student will determine square roots of perfect squares; and	Solve equations with squares and cubes, $x2 = p$ and $x3 = p$, and find square and cube roots of perfect squares and cubes.*
NS.7.1.e The student will identify and describe absolute value of rational numbers	Add positive and negative rational numbers.* Subtract positive and negative rational numbers.*
CE.7.2 The student will solve practical problems involving operations with rational numbers.	Solve multi-step problems involving all forms of rational numbers. Use properties to write equivalent linear expressions.* Write equivalent expressions in different forms to show relationships.* Add positive and negative rational numbers.*

**This skill is related to the aligned standard*

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Subtract positive and negative rational numbers.* Multiply positive and negative rational numbers and interpret products in real-world contexts.* Divide positive and negative rational numbers and interpret quotients in real-world contexts.* Perform multi-step computations using all operations with both positive and negative rational numbers.* Solve mathematical problems involving the four operations with both positive and negative rational numbers, including complex fractions.*
CE.7.3 The student will solve . . . multistep practical problems, using proportional reasoning.	Solve multi-step ratio and percent problems.
CE.7.3 The student will solve single-step and multistep practical problems, using proportional reasoning.	Compute unit rates associated with ratios of fractions.*
MG.7.4.a The student will . . . determine the volume . . . of rectangular prisms . . .	Use formulas to find the volume of three-dimensional objects composed of cubes and right prisms.
MG.7.4.a The student will describe and determine the volume and surface area of rectangular prisms and cylinders; and	Use formulas to solve problems involving finding the area of two-dimensional figures composed of triangles, quadrilaterals, and polygons.* Use formulas to find the surface area of three-dimensional figures composed of

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	triangles, quadrilaterals, polygons, cubes, and right prisms.*
MG.7.4.b The student will solve problems, including practical problems, involving the volume . . . of rectangular prisms . . .	Use formulas to find the volume of three-dimensional objects composed of cubes and right prisms.
MG.7.4.b The student will solve problems, including practical problems, involving the volume and surface area of rectangular prisms and cylinders	Use formulas to solve problems involving finding the area of two-dimensional figures composed of triangles, quadrilaterals, and polygons.* Use formulas to find the surface area of three-dimensional figures composed of triangles, quadrilaterals, polygons, cubes, and right prisms.*
MG.7.5 The student will solve problems, including practical problems, involving the relationship between corresponding sides and corresponding angles of similar quadrilaterals and triangles.	Use proportions to solve problems involving similar two-dimensional figures.*
MG.7.6.a The student will compare and contrast quadrilaterals based on their properties; and	Use proportions to solve problems involving similar two-dimensional figures.*
MG.7.6.b The student will determine unknown side lengths or angle measures of quadrilaterals	Use proportions to solve problems involving similar two-dimensional figures.* Use understanding of supplementary, complementary, vertical, and adjacent angles to find the measures of unknown angles in a figure.*
MG.7.7 The student will apply translations and reflections of right triangles or rectangles in the coordinate plane.	Describe the results of rotations, reflections, and translations as they relate to line segments and angles of two-dimensional figures.*

**This skill is related to the aligned standard*

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Describe a sequence of rotations, reflections, and translations that are used to create a pair of congruent figures.* Describe a sequence of rotations, reflections, translations, and dilations that are used to create a pair of similar figures.*
PS.7.8.a The student will determine the . . . experimental probabilities of an event; and	Use frequency data of an event to approximate the probability of that event. Develop a probability model (which may not be uniform) from observed frequencies and use it to determine probabilities of simple and compound events.
PS.7.8.a The student will determine the theoretical . . . probabilities of an event; and	Develop and use a probability model with equal outcomes to determine probabilities of simple and compound events.
PS.7.8.b The student will investigate and describe the difference between the experimental probability and theoretical probability of an event	Use frequency data of an event to approximate the probability of that event.* Develop and use a probability model with equal outcomes to determine probabilities of simple and compound events.* Develop a probability model (which may not be uniform) from observed frequencies and use it to determine probabilities of simple and compound events.*
PS.7.9.a The student, given data in a practical situation, will represent data in a histogram	Display numerical data in histograms, draw inferences from the data, and describe patterns in the data.
PS.7.9.b The student. . . will make observations and inferences about data represented in a histogram; and	Display numerical data in histograms, draw inferences from the data, and describe patterns in the data.

**This skill is related to the aligned standard*

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
PS.7.9.c The student, given data in a practical situation, will compare histograms with the same data represented in stem-and-leaf plots, line plots, and circle graphs	Identify what types of data are best displayed in a line plot, histogram, or box plot.
PFA.7.10.a The student will determine the slope, m, as rate of change in a proportional relationship between two quantities and write an equation in the form y = mx to represent the relationship	Model a linear relationship with a function.* Find the rate of change and initial value of a function from a description or from a set of *x* and *y* values shown in a table or graph.* Interpret the rate of change and initial value of a linear function modeled in a graph or a table of values.*
PFA.7.10.b The student will graph a line representing a proportional relationship between two quantities given the slope and an ordered pair, or given the equation in y = mx form where m represents the slope as rate of change	Graph proportional relationships, interpreting the unit rate as the slope of the graph.* Model a linear relationship with a function.* Find the rate of change and initial value of a function from a description or from a set of *x* and *y* values shown in a table or graph.*
PFA.7.10.c The student will determine the y-intercept, b, in an additive relationship between two quantities and write an equation in the form y = x + b to represent the relationship	Find the slope and *y*-intercept of a line and relate these to an equation in the form $y = mx + b$.* Model a linear relationship with a function.* Find the rate of change and initial value of a function from a description or from a set of *x* and *y* values shown in a table or graph.*

**This skill is related to the aligned standard*

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Interpret the rate of change and initial value of a linear function modeled in a graph or a table of values.* Explain why the slope of a non-vertical line in the coordinate plane is the same between any two points on the line and use this understanding to derive the slope-intercept form of an equation $y = mx + b$.*
PFA.7.10.d The student will graph a line representing an additive relationship between two quantities given the y-intercept and an ordered pair, or given the equation in the form y = x + b, where b represents the y-intercept; and	Graph proportional relationships, interpreting the unit rate as the slope of the graph.* Compare two different proportional relationships expressed in different forms, such as tables, graphs, or equations.* Use and understand the equation $y = mx + b$; identify a function as linear or not linear.* Model a linear relationship with a function.* Find the rate of change and initial value of a function from a description or from a set of x and y values shown in a table or graph.* Interpret the rate of change and initial value of a linear function modeled in a graph or a table of values.*
PFA.7.10.e The student will make connections between and among representations of a proportional . . . relationship between two quantities using . . . equations, and graphs	Use an equation to represent a proportional relationship and interpret the meaning of a point on the graph of the equation.

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
PFA.7.10.e The student will make connections between and among representations of a proportional or additive relationship between two quantities using verbal descriptions, tables, equations, and graphs	Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.*
PFA.7.11 The student will evaluate algebraic expressions for given replacement values of the variables.	Evaluate expressions for given values of the variables.
PFA.7.12 The student will solve two-step linear equations in one variable, including practical problems that require the solution of a two-step linear equation in one variable.	Solve equations of the form $px + q = r$ or $p(x + q) = r$ where p, q, and r are rational numbers.* Use variables to write equations for real-world problems and solve by reasoning about the quantities.*
PFA.7.13 The student will solve one- and two-step linear inequalities in one variable, including practical problems, involving addition, subtraction, multiplication, and division, and graph the solution on a number line.	Solve and graph the solutions of inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are rational numbers.* Use variables to write inequalities for real-world and mathematical problems and solve by reasoning about the quantities.*

**This skill is related to the aligned standard*

Grade 8

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
NS.8.1 The student will compare . . . real numbers.	Use rational numbers to approximate and compare irrational numbers.
NS.8.1 The student will compare and order real numbers.	Understand and identify irrational numbers.*
NS.8.2 The student will describe the relationships between the subsets of the real number system.	Understand and identify irrational numbers.*
NS.8.3.a The student will estimate and determine the two consecutive integers between which a square root lies; and	Use rational numbers to approximate and compare irrational numbers.* Solve equations with squares and cubes, $x2 = p$ and $x3 = p$, and find square and cube roots of perfect squares and cubes.*
NS.8.3.b The student will determine both the positive and negative square roots of a given perfect square	Use rational numbers to approximate and compare irrational numbers.* Solve equations with squares and cubes, $x2 = p$ and $x3 = p$, and find square and cube roots of perfect squares and cubes.*
MG.8.5 The student will use the relationships among pairs of angles that are vertical angles, adjacent angles, supplementary angles, and complementary angles to determine the measure of unknown angles.	Use understanding of supplementary, complementary, vertical, and adjacent angles to find the measures of unknown angles in a figure.*
MG.8.6.a The student will solve problems, including practical problems, involving volume and surface area of cones and square-based pyramids; and	Use formulas to find the volume of cones, cylinders, and spheres.*
MG.8.6.b The student will describe how changing one measured attribute of a rectangular prism affects the volume and surface area	Use formulas to find the volume of cones, cylinders, and spheres.*
MG.8.7.a The student will given a polygon, apply transformations, to include	Describe the results of rotations, reflections, and translations as they relate to line

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
translations, reflections, and dilations, in the coordinate plane; and	segments and angles of two-dimensional figures.* Describe a sequence of rotations, reflections, and translations that are used to create a pair of congruent figures.* Describe a sequence of rotations, reflections, translations, and dilations that are used to create a pair of similar figures.*
MG.8.7.b The student will identify . . . applications of transformations	Describe a sequence of rotations, reflections, and translations that are used to create a pair of congruent figures. Describe a sequence of rotations, reflections, translations, and dilations that are used to create a pair of similar figures.
MG.8.7.b The student will identify practical applications of transformations	Describe the results of rotations, reflections, and translations as they relate to line segments and angles of two-dimensional figures.*
MG.8.8 The student will construct a three-dimensional model, given the top or bottom, side, and front views.	Identify two-dimensional nets that form three-dimensional figures.* Given a net formed by rectangles and triangles, identify the three-dimensional figure that can be formed.* Find the surface area of three-dimensional figures using nets.* Apply knowledge of nets of three-dimensional figures to solve real-world and mathematical problems involving spatial representation and surface area.*

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
MG.8.9.b The student will apply the Pythagorean Theorem	Use the Pythagorean theorem to solve problems involving right triangles. Apply the Pythagorean theorem to calculate the distance between two points on a coordinate grid.
MG.8.10 The student will solve. . . area . . . problems, including practical problems, involving composite plane figures.	Use formulas to solve problems involving finding the area of two-dimensional figures composed of triangles, quadrilaterals, and polygons.
PS.8.11.a The student will compare and contrast the probability of independent and dependent events; and	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.*
PS.8.11.b The student will determine probabilities for independent and dependent events	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
PS.8.12.a The student will represent numerical data in boxplots	Display numerical data in box plots, draw inferences from the data, and describe patterns in the data. Model, describe, and interpret representations of data in one variable.* • Create box plots and histograms. • Compare the measures of central tendency and the distribution of two or more sets of data. • Explain the statistical differences in the context of the data sets; state why there is a difference in shape, center, or spread.
PS.8.12.b The student will make observations and inferences about data represented in boxplots; and	Display numerical data in box plots, draw inferences from the data, and describe patterns in the data.* Model, describe, and interpret representations of data in one variable.*

**This skill is related to the aligned standard*

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Create box plots and histograms. • Compare the measures of central tendency and the distribution of two or more sets of data. • Explain the statistical differences in the context of the data sets; state why there is a difference in shape, center, or spread.
PS.8.12.c The student will compare and analyze two data sets using boxplots	Display numerical data in box plots, draw inferences from the data, and describe patterns in the data.* Model, describe, and interpret representations of data in one variable.* • Create box plots and histograms. • Compare the measures of central tendency and the distribution of two or more sets of data. • Explain the statistical differences in the context of the data sets; state why there is a difference in shape, center, or spread.
PS.8.13.a The student will represent data in scatterplots	Construct and describe patterns in scatter plots, such as clustering, outliers, positive or negative association, and linear or non-linear association.*
PS.8.13.b The student will make observations about data represented in scatterplots; and	Construct and describe patterns in scatter plots, such as clustering, outliers, positive or negative association, and linear or non-linear association.
PS.8.13.c The student will use a drawing to estimate the line of best fit for data represented in a scatterplot	Identify a line of fit to model and analyze a relationship between two quantitative variables.
PFA.8.14.a The student will evaluate an algebraic expression for given replacement values of the variables; and	Evaluate expressions for given values of the variables.

**This skill is related to the aligned standard*

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
PFA.8.14.b The student will simplify algebraic expressions in one variable	Solve linear equations in one variable with one solution, infinitely many solutions, or no solutions.* Solve linear equations with positive and negative rational coefficients by expanding expressions and collecting like terms.*
PFA.8.15.a The student will determine whether a given relation is a function; and	Understand and identify functions as one-to-one and many-to-one relationships.*
PFA.8.15.b The student will determine the domain and range of a function	Understand and identify functions as one-to-one and many-to-one relationships.*
PFA.8.16.a The student will recognize and describe the graph of a linear function with a slope that is positive, negative, or zero	Describe a function shown in a graph; sketch a graph for a description of a function. Compare properties of two functions with different representations (in equations, graphs, tables, words).* Find the rate of change and initial value of a function from a description or from a set of *x* and *y* values shown in a table or graph.*
PFA.8.16.b The student will identify the slope and y-intercept of a linear function, given a table of values, a graph, or an equation in y = mx + b form	Compare properties of two functions with different representations (in equations, graphs, tables, words).* Find the rate of change and initial value of a function from a description or from a set of *x* and *y* values shown in a table or graph.*
PFA.8.16.b The student will identify the slope and y-intercept of a linear function, given a table of values, [or] a graph . . .	Interpret the rate of change and initial value of a linear function modeled in a graph or a table of values.
PFA.8.16.c The student will determine the independent and dependent variable, given	Understand and identify functions as one-to-one and many-to-one relationships.*

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
a practical situation modeled by a linear function	Describe a function shown in a graph; sketch a graph for a description of a function.*
PFA.8.16.d The student will graph a linear function given the equation in y = mx + b form; and	Graph proportional relationships, interpreting the unit rate as the slope of the graph.* Use and understand the equation $y = mx + b$; identify a function as linear or not linear.* Model a linear relationship with a function.*
PFA.8.16.e The student will make connections between and among representations of a linear function using verbal descriptions, tables, equations, and graphs	Find the slope and y-intercept of a line and relate these to an equation in the form $y = mx + b$.* Understand and identify functions as one-to-one and many-to-one relationships.* Compare properties of two functions with different representations (in equations, graphs, tables, words).* Model a linear relationship with a function.* Interpret the rate of change and initial value of a linear function modeled in a graph or a table of values.*
PFA.8.17 The student will solve multistep linear equations in one variable with the variable on one or both sides of the equation . . .	Solve linear equations with positive and negative rational coefficients by expanding expressions and collecting like terms.

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
PFA.8.17 The student will solve multistep linear equations in one variable with the variable on one or both sides of the equation, including practical problems that require the solution of a multistep linear equation in one variable.	Solve linear equations in one variable with one solution, infinitely many solutions, or no solutions.*
PFA.8.18 The student will solve multistep linear inequalities in one variable with the variable on one or both sides of the inequality symbol, including practical problems, and graph the solution on a number line.	Solve and graph the solutions of inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are rational numbers.* Use variables to write inequalities for real-world and mathematical problems and solve by reasoning about the quantities.*

**This skill is related to the aligned standard*

Grades 9 - 10

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
EO.A.1.a The student will represent verbal quantitative situations algebraically; and	Interpret algebraic expressions including linear and simple exponential expressions * • Interpret parts of a linear and simple exponential expression, such as terms, factors, and coefficients. • Interpret complicated linear and simple exponential expressions by viewing one or more of their parts as a single entity. Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Represent all kinds of relationships, including simple root functions, as algebraic equations to solve mathematical and real-world problems. * • Create equations and inequalities in one variable that may include simple rational, exponential, and root functions and use them to solve problems

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Create equations in two or more variables that model complex situations and graph them on the coordinate plane. • Solve systems of equations and inequalities that model complex situations, and interpret the results. • Solve literal functions that model complex situations for a specific variable, including formulas involving simple roots.
EO.A.1.b The student will evaluate algebraic expressions for given replacement values of the variables	Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Represent all kinds of relationships, including simple root functions, as algebraic equations to solve mathematical and real-world problems. * • Create equations and inequalities in one variable that may include simple rational, exponential, and root functions and use them to solve problems

**This skill is related to the aligned standard*

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Create equations in two or more variables that model complex situations and graph them on the coordinate plane. • Solve systems of equations and inequalities that model complex situations, and interpret the results. • Solve literal functions that model complex situations for a specific variable, including formulas involving simple roots. Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.*
EO.A.2.a The student will perform operations on polynomials . . .	Add, subtract, and multiply polynomials.
EO.A.2.a The student will perform operations on polynomials [of degree 3 or greater] . . .	Add, subtract, and multiply polynomials of degree 3 or greater.
EO.A.2.a The student will perform operations on polynomials, including applying the laws of exponents to perform operations on expressions	Simplify expressions involving radicals and rational exponents using the properties of exponents. Demonstrate an understanding of rational exponents and use them in representations of radicals; convert between algebraic representations that use radicals or rational exponents.*
EO.A.2.b The student will perform operations on polynomials, including . . . dividing polynomials; and	Rewrite rational expressions with linear and quadratic denominators. • Determine the quotient of simple rational expressions that have linear or quadratic denominators. For example, write a(x)/b(x) in the form q(x) + r(x)/ b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	than the degree of b(x), using factoring, synthetic division, or long division • Add, subtract, multiply, and divide rational expressions with linear or quadratic denominators
EO.A.2.b The student will perform operations on polynomials, including adding, subtracting, [and] multiplying . . . polynomials [of degree 3 or greater]; and	Add, subtract, and multiply polynomials of degree 3 or greater.
EO.A.2.b The student will perform operations on polynomials, including adding, subtracting, [and] multiplying . . . polynomials; and	Add, subtract, and multiply polynomials.
EO.A.2.c The student will perform operations on polynomials, including factoring completely first- and second-degree binomials and trinomials in one variable	Interpret algebraic expressions, including quadratic and exponential expressions with rational exponents. * • Interpret parts of quadratic and exponential functions, such as terms, factors, and coefficients. • Interpret complicated quadratic and exponential expressions by viewing one or more of their parts as a single entity. • Simplify and rewrite algebraic expressions by interpreting their structure. Analyze, perform operations, and solve quadratic expressions and equations. * • Factor quadratic expressions • Determine the maximum or minimum of a quadratic function by completing the square. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Determine the zeros of polynomials and use them in graphing. * • Demonstrate an understanding of the Remainder and Factor theorems and use them in polynomial division problems • Find the zeros of polynomials of degree three or greater by factoring • Sketch graphs of polynomial functions using zeros Use inspection and completing the square to solve quadratic equations.*
EO.A.3.a The student will simplify square roots of whole numbers and monomial algebraic expressions	Interpret algebraic expressions, including quadratic and exponential expressions with rational exponents. *

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Interpret parts of quadratic and exponential functions, such as terms, factors, and coefficients. • Interpret complicated quadratic and exponential expressions by viewing one or more of their parts as a single entity. • Simplify and rewrite algebraic expressions by interpreting their structure. Demonstrate an understanding of rational exponents and use them in representations of radicals; convert between algebraic representations that use radicals or rational exponents.* Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.* Use inspection and completing the square to solve quadratic equations.*
EO.A.3.b The student will simplify cube roots of integers; and	Interpret algebraic expressions, including quadratic and exponential expressions with rational exponents. * • Interpret parts of quadratic and exponential functions, such as terms, factors, and coefficients. • Interpret complicated quadratic and exponential expressions by viewing one or more of their parts as a single entity.

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Simplify and rewrite algebraic expressions by interpreting their structure. Demonstrate an understanding of rational exponents and use them in representations of radicals; convert between algebraic representations that use radicals or rational exponents.* Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.*
EO.A.3.c The student will simplify numerical expressions containing square or cube roots	Interpret algebraic expressions, including quadratic and exponential expressions with rational exponents. * • Interpret parts of quadratic and exponential functions, such as terms, factors, and coefficients. • Interpret complicated quadratic and exponential expressions by viewing one or more of their parts as a single entity. • Simplify and rewrite algebraic expressions by interpreting their structure. Demonstrate an understanding of rational exponents and use them in representations of radicals; convert between algebraic representations that use radicals or rational exponents.*

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.* Use inspection and completing the square to solve quadratic equations.*
EI.A.4.a The student will solve multistep linear equations in one variable algebraically	Solve linear and literal equations and inequalities for one variable.*
EI.A.4.b The student will solve quadratic equations in one variable algebraically	Use inspection and completing the square to solve quadratic equations.
EI.A.4.c The student will solve literal equations for a specified variable	Solve literal formulas for a specific variable. Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	interpret solutions as viable or nonviable options in a modeling context. Solve linear and literal equations and inequalities for one variable.* Represent all kinds of relationships, including simple root functions, as algebraic equations to solve mathematical and real-world problems. * • Create equations and inequalities in one variable that may include simple rational, exponential, and root functions and use them to solve problems • Create equations in two or more variables that model complex situations and graph them on the coordinate plane. • Solve systems of equations and inequalities that model complex situations, and interpret the results. • Solve literal functions that model complex situations for a specific variable, including formulas involving simple roots. Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.*
EI.A.4.d The student will solve systems of two linear equations in two variables algebraically and graphically; and	Solve systems of linear equations using graphing and linear combination. • Show that linear combination results in one solution, infinitely many solutions or no solution that is shared by both lines. • Solve systems of linear equations algebraically and graphically.

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Represent and solve linear and simple exponential equations graphically. * • Demonstrate an understanding that the graph of an equation in two variables is the set of all the ordered pairs in the coordinate plane that are solutions to the equation. • Recognize that when the graphs of two functions intersect, the x-value of the point of intersection produces the same y-value in both functions such that f(x)=g(x); estimate these intersections by graphing, creating tables of x- and y- values, or finding successive approximations. • Graph half-planes to represent linear inequalities in two variables; graph the solution set to a system of linear

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	inequalities in two variables as the intersection of half-planes.
EI.A.4.e The student will solve practical problems involving equations and systems of equations	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Solve linear and literal equations and inequalities for one variable.* Solve systems of linear equations using graphing and linear combination. *

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Show that linear combination results in one solution, infinitely many solutions or no solution that is shared by both lines. • Solve systems of linear equations algebraically and graphically. Represent and solve linear and simple exponential equations graphically. * • Demonstrate an understanding that the graph of an equation in two variables is the set of all the ordered pairs in the coordinate plane that are solutions to the equation. • Recognize that when the graphs of two functions intersect, the x-value of the point of intersection produces the same y-value in both functions such that f(x)=g(x); estimate these intersections by graphing, creating tables of x- and y- values, or finding successive approximations. • Graph half-planes to represent linear inequalities in two variables; graph the solution set to a system of linear inequalities in two variables as the intersection of half-planes. Analyze, perform operations, and solve quadratic expressions and equations. * • Factor quadratic expressions • Determine the maximum or minimum of a quadratic function by completing the square. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Represent all kinds of relationships, including simple root functions, as algebraic equations to solve mathematical and real-world problems. * • Create equations and inequalities in one variable that may include simple rational, exponential, and root functions and use them to solve problems • Create equations in two or more variables that model complex situations and graph them on the coordinate plane.

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Solve systems of equations and inequalities that model complex situations, and interpret the results. • Solve literal functions that model complex situations for a specific variable, including formulas involving simple roots. Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.* Use inspection and completing the square to solve quadratic equations.*
EI.A.5.a The student will solve multistep linear inequalities in one variable algebraically and represent the solution graphically	Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Solve linear and literal equations and inequalities for one variable.*

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Represent all kinds of relationships, including simple root functions, as algebraic equations to solve mathematical and real-world problems. * • Create equations and inequalities in one variable that may include simple rational, exponential, and root functions and use them to solve problems • Create equations in two or more variables that model complex situations and graph them on the coordinate plane. • Solve systems of equations and inequalities that model complex situations, and interpret the results. • Solve literal functions that model complex situations for a specific variable, including formulas involving simple roots.
EI.A.5.b The student will represent the solution of linear inequalities in two variables graphically	Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.

**This skill is related to the aligned standard*

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Solve linear and literal equations and inequalities for one variable.* Represent and solve linear and simple exponential equations graphically. * • Demonstrate an understanding that the graph of an equation in two variables is the set of all the ordered pairs in the coordinate plane that are solutions to the equation. • Recognize that when the graphs of two functions intersect, the x-value of the point of intersection produces the same y-value in both functions such that f(x)=g(x); estimate these intersections by graphing, creating tables of x- and y- values, or finding successive approximations. • Graph half-planes to represent linear inequalities in two variables; graph the solution set to a system of linear inequalities in two variables as the intersection of half-planes.
EI.A.5.c The student will solve practical problems involving inequalities; and	Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Solve linear and literal equations and inequalities for one variable.* Solve systems of linear equations using graphing and linear combination. * • Show that linear combination results in one solution, infinitely many solutions or no solution that is shared by both lines. • Solve systems of linear equations algebraically and graphically. Represent all kinds of relationships, including simple root functions, as algebraic equations to solve mathematical and real-world problems. * • Create equations and inequalities in one variable that may include simple rational, exponential, and root functions and use them to solve problems • Create equations in two or more variables that model complex situations and graph them on the coordinate plane. • Solve systems of equations and inequalities that model complex situations, and interpret the results. • Solve literal functions that model complex situations for a specific variable, including formulas involving simple roots.
EI.A.5.d The student will represent the solution to a system of inequalities graphically	Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. *

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Represent and solve linear and simple exponential equations graphically. * • Demonstrate an understanding that the graph of an equation in two variables is the set of all the ordered pairs in the coordinate plane that are solutions to the equation. • Recognize that when the graphs of two functions intersect, the x-value of the point of intersection produces the same y-value in both functions such that f(x)=g(x); estimate these intersections by graphing, creating tables of x- and y- values, or finding successive approximations. • Graph half-planes to represent linear inequalities in two variables; graph the solution set to a system of linear inequalities in two variables as the intersection of half-planes.
EI.A.6.a The student will determine the slope of a line when given an equation of	Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. *

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
the line, the graph of the line, or two points on the line	• Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions. Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph.

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Analyze and interpret linear models in the context of measurement and data.* • Analyze and interpret the slope and intercepts of a linear model. • Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data. • Identify associations of data that are based on correlation versus causation and explain the difference.
EI.A.6.b The student will write the equation of a line when given the graph of the line, two points on the line, or the slope and a point on the line; and	Construct new representations of functions from algebraic, graphic, numerical, or verbal representations of linear and exponential functions. * • Determine an algebraic expression or steps for calculation of a linear or exponential function that model real world situations. • Create new functions by using arithmetic operations on functions. • Write algebraic expression or steps for calculation to determine terms in arithmetic and geometric sequences and convert from one representation to the other. Analyze data on a scatter plot and determine a good model.* • Determine if a linear model is a good fit from a scatterplot of the data. • Determine a linear function that best fits data in a scatterplot that suggests a linear model, and use the functions to estimate future trends.

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Determine from a plot of the residuals of a scatterplot whether a linear model is a good fit for the data. Analyze and interpret linear models in the context of measurement and data.* • Analyze and interpret the slope and intercepts of a linear model. • Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data. • Identify associations of data that are based on correlation versus causation and explain the difference.
EI.A.6.c The student will graph linear equations in two variables	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions. Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Analyze data on a scatter plot and determine a good model.* • Determine if a linear model is a good fit from a scatterplot of the data. • Determine a linear function that best fits data in a scatterplot that suggests a linear model, and use the functions to estimate future trends.

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Determine from a plot of the residuals of a scatterplot whether a linear model is a good fit for the data. Analyze and interpret linear models in the context of measurement and data.* • Analyze and interpret the slope and intercepts of a linear model. • Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data. • Identify associations of data that are based on correlation versus causation and explain the difference.
F.A.7.a The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including determining whether a relation is a function	Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions.

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Demonstrate an understanding of functions, apply functional notation, and evaluate functions. * • Understand the definition of a function in terms of its domain and range; Understand that f(x) denotes the graph of the ordered pairs of the output (the y-coordinates) corresponding to the input (the x-coordinates). • Use function notation to interpret linear and exponential functions and parts of these functions in real-world contexts. Evaluate linear and exponential functions given inputs from their domains. • Recognize that geometric and arithmetic sequences are functions that are defined by determining the next number in the sequence (i.e., recursively).
F.A.7.b The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including domain and range	Demonstrate an understanding of functions, apply functional notation, and evaluate functions. * • Understand the definition of a function in terms of its domain and range; Understand that f(x) denotes the graph of the ordered pairs of the output (the y-coordinates) corresponding to the input (the x-coordinates). • Use function notation to interpret linear and exponential functions and parts of these functions in real-world contexts. Evaluate linear and exponential functions given inputs from their domains. • Recognize that geometric and arithmetic sequences are functions that are defined by determining the next number in the sequence (i.e., recursively).

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents.

**This skill is related to the aligned standard*

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph.
F.A.7.c The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including zeros	Analyze, perform operations, and solve quadratic expressions and equations. * • Factor quadratic expressions • Determine the maximum or minimum of a quadratic function by completing the square. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	or exponential function with rational exponents using a graph.
F.A.7.d The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including intercepts	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Analyze and interpret linear models in the context of measurement and data.* • Analyze and interpret the slope and intercepts of a linear model.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data. • Identify associations of data that are based on correlation versus causation and explain the difference. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph.
F.A.7.e The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including	Demonstrate an understanding of functions, apply functional notation, and evaluate functions. *

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
values of a function for elements in its domain; and	• Understand the definition of a function in terms of its domain and range; Understand that f(x) denotes the graph of the ordered pairs of the output (the y-coordinates) corresponding to the input (the x-coordinates). • Use function notation to interpret linear and exponential functions and parts of these functions in real-world contexts. Evaluate linear and exponential functions given inputs from their domains. • Recognize that geometric and arithmetic sequences are functions that are defined by determining the next number in the sequence (i.e., recursively).
F.A.7.f The student will investigate and analyze linear and quadratic function families and their characteristics both algebraically and graphically, including connections between and among multiple representations of functions using verbal descriptions, tables, equations, and graphs	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions. Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Compare and analyze the growth of exponential functions using tables or graphs to other functions. * • Compare to linear functions • Compare to other exponential functions • Compare to quadratic functions • Compare to simple polynomial functions of degree 3 or higher

**This skill is related to the aligned standard*

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
S.A.8 The student, given a data set or practical situation, will analyze a relation to determine whether a direct or inverse variation exists, and represent a direct variation algebraically and graphically and an inverse variation algebraically.	Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions. Analyze data on a scatter plot and determine a good model.* • Determine if a linear model is a good fit from a scatterplot of the data. • Determine a linear function that best fits data in a scatterplot that suggests a linear model, and use the functions to estimate future trends. • Determine from a plot of the residuals of a scatterplot whether a linear model is a good fit for the data. Analyze and interpret linear models in the context of measurement and data.* • Analyze and interpret the slope and intercepts of a linear model.

**This skill is related to the aligned standard*

Grades 9 - 10 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data. • Identify associations of data that are based on correlation versus causation and explain the difference.
S.A.9 The student will . . . analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems, using mathematical models of linear . . . functions.	Analyze data on a scatter plot and determine a good model. • Determine if a linear model is a good fit from a scatterplot of the data. • Determine a linear function that best fits data in a scatterplot that suggests a linear model, and use the functions to estimate future trends. • Determine from a plot of the residuals of a scatterplot whether a linear model is a good fit for the data.
S.A.9 The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems, using mathematical models of linear . . . functions.	Analyze and interpret linear models in the context of measurement and data. • Analyze and interpret the slope and intercepts of a linear model. • Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data. • Identify associations of data that are based on correlation versus causation and explain the difference.

**This skill is related to the aligned standard*

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
RLT.G.1.a The student will use deductive reasoning to construct and judge the validity of a logical argument consisting of a set of premises and a conclusion. This will include identifying the converse, inverse, and contrapositive of a conditional statement	Demonstrate a fundamental understanding of congruence as it relates to transformations of rigid motions, including those involving triangles.* • Describe translations, rotations, and reflections using geometric terms, and predict the impact of these transformations on figures. Use the definition of congruence in terms of rigid motions to decide if two figures are congruent. • Show that two triangles are congruent if and only if the corresponding sides and angles are congruent using the definition of congruence in terms of rigid motions. • Using congruence in terms of rigid motions, show how the congruence criteria for triangles (ASA, SAS, and SSS) follows. Use coordinate geometry to prove geometric theorems and to solve real-world and mathematical problems.* • Prove simple geometric theorems using the rectangular coordinate system. • Prove that lines with the same slope are either the same line or parallel lines; Prove that lines are perpendicular if and only if the slopes have a product of -1. Find the equation of a line parallel or perpendicular to a given line through a specified point. • Find the perimeters of polygons and areas of triangles and rectangles using the rectangular coordinate system.
RLT.G.1.b The student will use deductive reasoning to construct and judge the validity of a logical argument consisting of a set of	Use coordinate geometry to prove geometric theorems and to solve real-world and mathematical problems.*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
premises and a conclusion. This will include translating a short verbal argument into symbolic form; and	• Prove simple geometric theorems using the rectangular coordinate system. • Prove that lines with the same slope are either the same line or parallel lines; Prove that lines are perpendicular if and only if the slopes have a product of -1. Find the equation of a line parallel or perpendicular to a given line through a specified point. • Find the perimeters of polygons and areas of triangles and rectangles using the rectangular coordinate system.
RLT.G.1.c The student will use deductive reasoning to construct and judge the validity of a logical argument consisting of a set of premises and a conclusion. This will include determining the validity of a logical argument	Prove simple theorems about lines and angles. • Prove vertical angles are congruent. • Prove that when a transversal crosses parallel lines, alternate interior angles are congruent. • Prove that when a transversal crosses parallel lines, corresponding angles are congruent. • Prove that any point on a perpendicular bisector of a line segment is equidistant from the line segment's endpoints. Prove simple theorems about triangles and parallelograms in the Euclidean plane • Prove the measures of interior angles of a triangle sum to 180°. • Prove the base angles of isosceles triangles are congruent. • Prove the segment joining midpoints of two sides of a triangle is parallel to the third side. • Prove the segment joining midpoints of two sides of a triangle is half the length of the third side.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Prove the medians of a triangle meet at a point. • Prove opposite sides of a parallelogram are congruent. • Prove opposite angles of a parallelogram are congruent. • Prove the diagonals of a parallelogram bisect each other. • Prove that parallelograms with congruent diagonals are rectangles Use coordinate geometry to prove geometric theorems and to solve real-world and mathematical problems.* • Prove simple geometric theorems using the rectangular coordinate system. • Prove that lines with the same slope are either the same line or parallel lines; Prove that lines are perpendicular if and only if the slopes have a product of -1. Find the equation of a line parallel or perpendicular to a given line through a specified point. • Find the perimeters of polygons and areas of triangles and rectangles using the rectangular coordinate system. Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles. • Solve problems using similarity criteria for triangles. • Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Prove the Pythagorean Theorem using similar triangles. Demonstrate an understanding of the similarity of circles and describe relationships of segments in circles and use them to solve problems.* • Use transformations to prove that any two circles are similar. • Identify and describe relationships among angles, chords, and tangents; including central, inscribed, and circumscribed angles. • Recognize that an inscribed angle on a diameter is right. • Recognize that the radius of a circle is perpendicular to a tangent of the circle where the radius intersects the circle. • Recognize and prove that the opposite angles of a quadrilateral inscribed in a circle are supplementary. • Construct an inscribed or circumscribed circle of a triangle, using a virtual compass and straight edge.
RLT.G.2.a The student will use the relationships between angles formed by two lines intersected by a transversal to prove two or more lines are parallel; and	Prove simple theorems about lines and angles.* • Prove vertical angles are congruent. • Prove that when a transversal crosses parallel lines, alternate interior angles are congruent. • Prove that when a transversal crosses parallel lines, corresponding angles are congruent. • Prove that any point on a perpendicular bisector of a line segment is equidistant from the line segment's endpoints.
RLT.G.2.b The student will use the relationships between angles formed by two	Prove simple theorems about lines and angles.*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
lines intersected by a transversal to solve problems, including practical problems, involving angles formed when parallel lines are intersected by a transversal	• Prove vertical angles are congruent. • Prove that when a transversal crosses parallel lines, alternate interior angles are congruent. • Prove that when a transversal crosses parallel lines, corresponding angles are congruent. • Prove that any point on a perpendicular bisector of a line segment is equidistant from the line segment's endpoints.
RLT.G.3.a The student will solve problems involving symmetry and transformation. This will include investigating and using formulas for determining distance, midpoint, and slope	Represent, describe, and model transformations in the plane.* • Represent and describe transformations in the plane as functions. Contrast transformations that are rigid motions to transformations that contain dilations. • Identify and describe transformations that carry quadrilaterals and regular polygons onto themselves. • Develop definitions of the rigid motion transformations using the geometric terms of parallel lines, perpendicular lines, angles, and circles. • Represent the image of a given rigid motion transformation given the pre-image and the specific rotation, translation, or reflection. Determine what sequence of transformations will carry the pre-image of a figure onto its image. Demonstrate a fundamental understanding of congruence as it relates to transformations of rigid motions, including those involving triangles.* • Describe translations, rotations, and reflections using geometric terms, and predict the impact of these

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	transformations on figures. Use the definition of congruence in terms of rigid motions to decide if two figures are congruent. • Show that two triangles are congruent if and only if the corresponding sides and angles are congruent using the definition of congruence in terms of rigid motions. • Using congruence in terms of rigid motions, show how the congruence criteria for triangles (ASA, SAS, and SSS) follows. Use coordinate geometry to prove geometric theorems and to solve real-world and mathematical problems.* • Prove simple geometric theorems using the rectangular coordinate system. • Prove that lines with the same slope are either the same line or parallel lines; Prove that lines are perpendicular if and only if the slopes have a product of -1. Find the equation of a line parallel or perpendicular to a given line through a specified point. • Find the perimeters of polygons and areas of triangles and rectangles using the rectangular coordinate system.
RLT.G.3.b The student will solve problems involving symmetry and transformation. This will include applying slope to verify and determine whether lines are parallel or perpendicular	Represent, describe, and model transformations in the plane.* • Represent and describe transformations in the plane as functions. Contrast transformations that are rigid motions to transformations that contain dilations. • Identify and describe transformations that carry quadrilaterals and regular polygons onto themselves.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Develop definitions of the rigid motion transformations using the geometric terms of parallel lines, perpendicular lines, angles, and circles. • Represent the image of a given rigid motion transformation given the pre-image and the specific rotation, translation, or reflection. Determine what sequence of transformations will carry the pre-image of a figure onto its image. Use coordinate geometry to prove geometric theorems and to solve real-world and mathematical problems.* • Prove simple geometric theorems using the rectangular coordinate system. • Prove that lines with the same slope are either the same line or parallel lines; Prove that lines are perpendicular if and only if the slopes have a product of -1. Find the equation of a line parallel or perpendicular to a given line through a specified point. • Find the perimeters of polygons and areas of triangles and rectangles using the rectangular coordinate system.
RLT.G.3.c The student will solve problems involving symmetry and transformation. This will include investigating symmetry and determining whether a figure is symmetric with respect to a line or a point; and	Represent, describe, and model transformations in the plane.* • Represent and describe transformations in the plane as functions. Contrast transformations that are rigid motions to transformations that contain dilations. • Identify and describe transformations that carry quadrilaterals and regular polygons onto themselves. • Develop definitions of the rigid motion transformations using the geometric

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	terms of parallel lines, perpendicular lines, angles, and circles. • Represent the image of a given rigid motion transformation given the pre-image and the specific rotation, translation, or reflection. Determine what sequence of transformations will carry the pre-image of a figure onto its image.
RLT.G.3.d The student will solve problems involving symmetry and transformation. This will include determining whether a figure has been translated, reflected, rotated, or dilated, using coordinate methods	Represent, describe, and model transformations in the plane.* • Represent and describe transformations in the plane as functions. Contrast transformations that are rigid motions to transformations that contain dilations. • Identify and describe transformations that carry quadrilaterals and regular polygons onto themselves. • Develop definitions of the rigid motion transformations using the geometric terms of parallel lines, perpendicular lines, angles, and circles. • Represent the image of a given rigid motion transformation given the pre-image and the specific rotation, translation, or reflection. Determine what sequence of transformations will carry the pre-image of a figure onto its image.
RLT.G.4.a The student will construct and justify the constructions of a line segment congruent to a given line segment	Represent, describe, and model transformations in the plane.* • Represent and describe transformations in the plane as functions. Contrast transformations that are rigid motions to transformations that contain dilations. • Identify and describe transformations that carry quadrilaterals and regular polygons onto themselves.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Develop definitions of the rigid motion transformations using the geometric terms of parallel lines, perpendicular lines, angles, and circles. • Represent the image of a given rigid motion transformation given the pre-image and the specific rotation, translation, or reflection. Determine what sequence of transformations will carry the pre-image of a figure onto its image. Demonstrate a fundamental understanding of congruence as it relates to transformations of rigid motions, including those involving triangles.* • Describe translations, rotations, and reflections using geometric terms, and predict the impact of these transformations on figures. Use the definition of congruence in terms of rigid motions to decide if two figures are congruent. • Show that two triangles are congruent if and only if the corresponding sides and angles are congruent using the definition of congruence in terms of rigid motions. • Using congruence in terms of rigid motions, show how the congruence criteria for triangles (ASA, SAS, and SSS) follows.
RLT.G.4.b The student will construct and justify the constructions of the perpendicular bisector of a line segment	Prove simple theorems about lines and angles.* • Prove vertical angles are congruent. • Prove that when a transversal crosses parallel lines, alternate interior angles are congruent.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Prove that when a transversal crosses parallel lines, corresponding angles are congruent. • Prove that any point on a perpendicular bisector of a line segment is equidistant from the line segment's endpoints.
RLT.G.4.c The student will construct and justify the constructions of a perpendicular to a given line from a point not on the line	Represent, describe, and model transformations in the plane.* • Represent and describe transformations in the plane as functions. Contrast transformations that are rigid motions to transformations that contain dilations. • Identify and describe transformations that carry quadrilaterals and regular polygons onto themselves. • Develop definitions of the rigid motion transformations using the geometric terms of parallel lines, perpendicular lines, angles, and circles. • Represent the image of a given rigid motion transformation given the pre-image and the specific rotation, translation, or reflection. Determine what sequence of transformations will carry the pre-image of a figure onto its image. Prove simple theorems about lines and angles.* • Prove vertical angles are congruent. • Prove that when a transversal crosses parallel lines, alternate interior angles are congruent. • Prove that when a transversal crosses parallel lines, corresponding angles are congruent.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Prove that any point on a perpendicular bisector of a line segment is equidistant from the line segment's endpoints.
RLT.G.4.d The student will construct and justify the constructions of a perpendicular to a given line at a given point on the line	Represent, describe, and model transformations in the plane.* • Represent and describe transformations in the plane as functions. Contrast transformations that are rigid motions to transformations that contain dilations. • Identify and describe transformations that carry quadrilaterals and regular polygons onto themselves. • Develop definitions of the rigid motion transformations using the geometric terms of parallel lines, perpendicular lines, angles, and circles. • Represent the image of a given rigid motion transformation given the pre-image and the specific rotation, translation, or reflection. Determine what sequence of transformations will carry the pre-image of a figure onto its image. Use coordinate geometry to prove geometric theorems and to solve real-world and mathematical problems.* • Prove simple geometric theorems using the rectangular coordinate system. • Prove that lines with the same slope are either the same line or parallel lines; Prove that lines are perpendicular if and only if the slopes have a product of -1. Find the equation of a line parallel or perpendicular to a given line through a specified point.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Find the perimeters of polygons and areas of triangles and rectangles using the rectangular coordinate system.
RLT.G.4.f The student will construct and justify the constructions of an angle congruent to a given angle	Identify the steps in the process of more advanced geometric constructions. • Construction of an equilateral triangle • Construction of a square • Construction of a regular hexagon inscribed in a circle. Demonstrate a fundamental understanding of congruence as it relates to transformations of rigid motions, including those involving triangles.* • Describe translations, rotations, and reflections using geometric terms, and predict the impact of these transformations on figures. Use the definition of congruence in terms of rigid motions to decide if two figures are congruent. • Show that two triangles are congruent if and only if the corresponding sides and angles are congruent using the definition of congruence in terms of rigid motions. • Using congruence in terms of rigid motions, show how the congruence criteria for triangles (ASA, SAS, and SSS) follows. Prove simple theorems about lines and angles.* • Prove vertical angles are congruent. • Prove that when a transversal crosses parallel lines, alternate interior angles are congruent.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Prove that when a transversal crosses parallel lines, corresponding angles are congruent. • Prove that any point on a perpendicular bisector of a line segment is equidistant from the line segment's endpoints.
RLT.G.4.g The student will construct and justify the constructions of a line parallel to a given line through a point not on the line; and	Represent, describe, and model transformations in the plane.* • Represent and describe transformations in the plane as functions. Contrast transformations that are rigid motions to transformations that contain dilations. • Identify and describe transformations that carry quadrilaterals and regular polygons onto themselves. • Develop definitions of the rigid motion transformations using the geometric terms of parallel lines, perpendicular lines, angles, and circles. • Represent the image of a given rigid motion transformation given the pre-image and the specific rotation, translation, or reflection. Determine what sequence of transformations will carry the pre-image of a figure onto its image. Use coordinate geometry to prove geometric theorems and to solve real-world and mathematical problems.* • Prove simple geometric theorems using the rectangular coordinate system. • Prove that lines with the same slope are either the same line or parallel lines; Prove that lines are perpendicular if and only if the slopes have a product of -1. Find the equation of a line parallel or

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	perpendicular to a given line through a specified point. • Find the perimeters of polygons and areas of triangles and rectangles using the rectangular coordinate system.
RLT.G.4.h The student will construct and justify the constructions of an equilateral triangle, a square, and a regular hexagon inscribed in a circle	Identify the steps in the process of more advanced geometric constructions. • Construction of an equilateral triangle • Construction of a square • Construction of a regular hexagon inscribed in a circle.
T.G.5.a The student, given information concerning the lengths of sides and/or measures of angles in triangles, will solve problems, including practical problems. This will include ordering the sides by length, given angle measures	Demonstrate an understanding of similarity in terms of transformations.* • Show that a dilation takes a line not passing through the center of the dilation to a parallel line. • Show that dilation leaves a line passing through the center of the dilation unchanged. • Show that the dilation of a line segment creates a new line segment in the ratio of the scale factor of the dilation. • Show that transformations will result in similar figures by preserving the measure of corresponding angles and creating corresponding sides with proportional lengths. • Prove the AA criterion for similarity using transformations. Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems.* • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems.
T.G.5.b The student, given information concerning the lengths of sides and/or measures of angles in triangles, will solve problems, including practical problems. This will include ordering the angles by degree measure, given side lengths	Demonstrate an understanding of similarity in terms of transformations.* • Show that a dilation takes a line not passing through the center of the dilation to a parallel line. • Show that dilation leaves a line passing through the center of the dilation unchanged. • Show that the dilation of a line segment creates a new line segment in the ratio of the scale factor of the dilation. • Show that transformations will result in similar figures by preserving the measure of corresponding angles and creating corresponding sides with proportional lengths. • Prove the AA criterion for similarity using transformations. Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems.* • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Pythagorean Theorem to solve real world problems.
T.G.5.c The student, given information concerning the lengths of sides and/or measures of angles in triangles, will solve problems, including practical problems. This will include determining whether a triangle exists; and	Prove simple theorems about triangles and parallelograms in the Euclidean plane* • Prove the measures of interior angles of a triangle sum to 180°. • Prove the base angles of isosceles triangles are congruent. • Prove the segment joining midpoints of two sides of a triangle is parallel to the third side. • Prove the segment joining midpoints of two sides of a triangle is half the length of the third side. • Prove the medians of a triangle meet at a point. • Prove opposite sides of a parallelogram are congruent. • Prove opposite angles of a parallelogram are congruent. • Prove the diagonals of a parallelogram bisect each other. • Prove that parallelograms with congruent diagonals are rectangles Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles. • Solve problems using similarity criteria for triangles. • Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse. • Prove the Pythagorean Theorem using similar triangles.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
T.G.5.d The student, given information concerning the lengths of sides and/or measures of angles in triangles, will solve problems, including practical problems. This will include determining the range in which the length of the third side must lie	Prove simple theorems about triangles and parallelograms in the Euclidean plane* • Prove the measures of interior angles of a triangle sum to 180°. • Prove the base angles of isosceles triangles are congruent. • Prove the segment joining midpoints of two sides of a triangle is parallel to the third side. • Prove the segment joining midpoints of two sides of a triangle is half the length of the third side. • Prove the medians of a triangle meet at a point. • Prove opposite sides of a parallelogram are congruent. • Prove opposite angles of a parallelogram are congruent. • Prove the diagonals of a parallelogram bisect each other. • Prove that parallelograms with congruent diagonals are rectangles Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles. • Solve problems using similarity criteria for triangles. • Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse. • Prove the Pythagorean Theorem using similar triangles.
T.G.6 The student, given information in the form of a figure or statement, will prove two triangles are congruent.	Demonstrate a fundamental understanding of congruence as it relates to

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	transformations of rigid motions, including those involving triangles.* • Describe translations, rotations, and reflections using geometric terms, and predict the impact of these transformations on figures. Use the definition of congruence in terms of rigid motions to decide if two figures are congruent. • Show that two triangles are congruent if and only if the corresponding sides and angles are congruent using the definition of congruence in terms of rigid motions. • Using congruence in terms of rigid motions, show how the congruence criteria for triangles (ASA, SAS, and SSS) follows. Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles. • Solve problems using similarity criteria for triangles. • Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse. • Prove the Pythagorean Theorem using similar triangles. Use coordinate geometry to prove simple theorems, including simple theorems about circles algebraically.*
T.G.7 The student, given information in the form of a figure or statement, will prove two triangles are similar.	Demonstrate an understanding of similarity in terms of transformations.*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Show that a dilation takes a line not passing through the center of the dilation to a parallel line. • Show that dilation leaves a line passing through the center of the dilation unchanged. • Show that the dilation of a line segment creates a new line segment in the ratio of the scale factor of the dilation. • Show that transformations will result in similar figures by preserving the measure of corresponding angles and creating corresponding sides with proportional lengths. • Prove the AA criterion for similarity using transformations. Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles. • Solve problems using similarity criteria for triangles. • Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse. • Prove the Pythagorean Theorem using similar triangles.
T.G.8.a The student will solve problems, including practical problems, involving right triangles. This will include applying the Pythagorean Theorem and its converse	Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles. • Solve problems using similarity criteria for triangles.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse. • Prove the Pythagorean Theorem using similar triangles. Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems.* • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems.
T.G.8.b The student will solve problems, including practical problems, involving right triangles. This will include applying properties of special right triangles; and	Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles. • Solve problems using similarity criteria for triangles. • Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse. • Prove the Pythagorean Theorem using similar triangles. Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems.* • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems. Use the unit circle to determine the lengths of the sides of special right triangles and to explain periodicity. * • Use the unit circles and special right triangles to compute the values of the trigonometric ratios for angles with reference angles equal to 30, 45, 60, and 90 degrees • Explain periodicity using the unit circle • Explain even and odd symmetry using the unit circle
T.G.8.c The student will solve problems, including practical problems, involving right triangles. This will include applying trigonometric ratios	Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems. • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Use the unit circle to determine the lengths of the sides of special right triangles and to explain periodicity. * • Use the unit circles and special right triangles to compute the values of the trigonometric ratios for angles with reference angles equal to 30, 45, 60, and 90 degrees • Explain periodicity using the unit circle • Explain even and odd symmetry using the unit circle
PC.G.9 The student will verify and use properties of quadrilaterals to solve problems, including practical problems.	Demonstrate an understanding of the similarity of circles and describe relationships of segments in circles and use them to solve problems.* • Use transformations to prove that any two circles are similar. • Identify and describe relationships among angles, chords, and tangents; including central, inscribed, and circumscribed angles. • Recognize that an inscribed angle on a diameter is right. • Recognize that the radius of a circle is perpendicular to a tangent of the circle where the radius intersects the circle. • Recognize and prove that the opposite angles of a quadrilateral inscribed in a circle are supplementary. • Construct an inscribed or circumscribed circle of a triangle, using a virtual compass and straight edge.
PC.G.10.a The student will solve problems, including practical problems, involving angles of convex polygons. This will include determining the sum of the interior and/or exterior angles	Prove simple theorems about triangles and parallelograms in the Euclidean plane* • Prove the measures of interior angles of a triangle sum to 180°.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Prove the base angles of isosceles triangles are congruent. • Prove the segment joining midpoints of two sides of a triangle is parallel to the third side. • Prove the segment joining midpoints of two sides of a triangle is half the length of the third side. • Prove the medians of a triangle meet at a point. • Prove opposite sides of a parallelogram are congruent. • Prove opposite angles of a parallelogram are congruent. • Prove the diagonals of a parallelogram bisect each other. • Prove that parallelograms with congruent diagonals are rectangles
PC.G.10.b The student will solve problems, including practical problems, involving angles of convex polygons. This will include determining the measure of an interior and/or exterior angle; and	Prove simple theorems about triangles and parallelograms in the Euclidean plane* • Prove the measures of interior angles of a triangle sum to 180°. • Prove the base angles of isosceles triangles are congruent. • Prove the segment joining midpoints of two sides of a triangle is parallel to the third side. • Prove the segment joining midpoints of two sides of a triangle is half the length of the third side. • Prove the medians of a triangle meet at a point. • Prove opposite sides of a parallelogram are congruent. • Prove opposite angles of a parallelogram are congruent. • Prove the diagonals of a parallelogram bisect each other.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Prove that parallelograms with congruent diagonals are rectangles
PC.G.10.c The student will solve problems, including practical problems, involving angles of convex polygons. This will include determining the number of sides of a regular polygon	Prove simple theorems about triangles and parallelograms in the Euclidean plane* • Prove the measures of interior angles of a triangle sum to 180°. • Prove the base angles of isosceles triangles are congruent. • Prove the segment joining midpoints of two sides of a triangle is parallel to the third side. • Prove the segment joining midpoints of two sides of a triangle is half the length of the third side. • Prove the medians of a triangle meet at a point. • Prove opposite sides of a parallelogram are congruent. • Prove opposite angles of a parallelogram are congruent. • Prove the diagonals of a parallelogram bisect each other. • Prove that parallelograms with congruent diagonals are rectangles
PC.G.11.a The student will solve problems, including practical problems, by applying properties of circles. This will include determining angle measures formed by intersecting chords, secants, and/or tangents	Demonstrate an understanding of the similarity of circles and describe relationships of segments in circles and use them to solve problems.* • Use transformations to prove that any two circles are similar. • Identify and describe relationships among angles, chords, and tangents; including central, inscribed, and circumscribed angles. • Recognize that an inscribed angle on a diameter is right.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Recognize that the radius of a circle is perpendicular to a tangent of the circle where the radius intersects the circle. • Recognize and prove that the opposite angles of a quadrilateral inscribed in a circle are supplementary. • Construct an inscribed or circumscribed circle of a triangle, using a virtual compass and straight edge. Derive equations of simple conic sections: parabolas and circles.* • Use the Pythagorean theorem to derive the equation of a circle. • Find the center and radius of a circle given by completing the square. • Given the focus and directrix, derive the equation of a parabola.
PC.G.11.b The student will solve problems, including practical problems, by applying properties of circles. This will include determining lengths of segments formed by intersecting chords, secants, and/or tangents	Demonstrate an understanding of the similarity of circles and describe relationships of segments in circles and use them to solve problems.* • Use transformations to prove that any two circles are similar. • Identify and describe relationships among angles, chords, and tangents; including central, inscribed, and circumscribed angles. • Recognize that an inscribed angle on a diameter is right. • Recognize that the radius of a circle is perpendicular to a tangent of the circle where the radius intersects the circle. • Recognize and prove that the opposite angles of a quadrilateral inscribed in a circle are supplementary.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Construct an inscribed or circumscribed circle of a triangle, using a virtual compass and straight edge. Derive equations of simple conic sections: parabolas and circles.* • Use the Pythagorean theorem to derive the equation of a circle. • Find the center and radius of a circle given by completing the square. • Given the focus and directrix, derive the equation of a parabola.
PC.G.11.c The student will solve problems, including practical problems, by applying properties of circles. This will include determining arc length; and	Demonstrate an understanding of the properties of a sector of a circle and apply them to solve problems.* • Convert between radian measure and angle measure. • Recognize and show that #r is the length of the arc intercepted by an angle. • Recognize and show that (#r^2)/2 is the formula for the area of a sector of a circle.
PC.G.11.d The student will solve problems, including practical problems, by applying properties of circles. This will include determining area of a sector	Demonstrate an understanding of the properties of a sector of a circle and apply them to solve problems.* • Convert between radian measure and angle measure. • Recognize and show that #r is the length of the arc intercepted by an angle. • Recognize and show that (#r^2)/2 is the formula for the area of a sector of a circle.
PC.G.12 The student will solve problems involving equations of circles.	Demonstrate an understanding of volume formulas and use them to solve problems involving* • Cylinders • Cones

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Spheres • Pyramids Derive equations of simple conic sections: parabolas and circles.* • Use the Pythagorean theorem to derive the equation of a circle. • Find the center and radius of a circle given by completing the square. • Given the focus and directrix, derive the equation of a parabola.
TDF.G.13 The student will use . . . volume of three-dimensional objects to solve practical problems.	Demonstrate an understanding of volume formulas and use them to solve problems involving • Cylinders • Cones • Spheres • Pyramids
TDF.G.14.a The student will apply the concepts of similarity to two- . . . dimensional geometric figures. This will include comparing ratios between lengths . . . of similar figures	Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems. • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems.
TDF.G.14.a The student will apply the concepts of similarity to two- or three-dimensional geometric figures. This will include comparing ratios between lengths,	Demonstrate an understanding of similarity in terms of transformations.* • Show that a dilation takes a line not passing through the center of the dilation to a parallel line.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
perimeters, areas, and volumes of similar figures	• Show that dilation leaves a line passing through the center of the dilation unchanged. • Show that the dilation of a line segment creates a new line segment in the ratio of the scale factor of the dilation. • Show that transformations will result in similar figures by preserving the measure of corresponding angles and creating corresponding sides with proportional lengths. • Prove the AA criterion for similarity using transformations. Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles. • Solve problems using similarity criteria for triangles. • Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse. • Prove the Pythagorean Theorem using similar triangles.
TDF.G.14.b The student will apply the concepts of similarity to two- or three-dimensional geometric figures. This will include determining how changes in one or more dimensions of a figure affect area and/or volume of the figure	Demonstrate an understanding of similarity in terms of transformations.* • Show that a dilation takes a line not passing through the center of the dilation to a parallel line. • Show that dilation leaves a line passing through the center of the dilation unchanged. • Show that the dilation of a line segment creates a new line segment in the ratio of the scale factor of the dilation.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Show that transformations will result in similar figures by preserving the measure of corresponding angles and creating corresponding sides with proportional lengths. • Prove the AA criterion for similarity using transformations.
TDF.G.14.c The student will apply the concepts of similarity to two- or three-dimensional geometric figures. This will include determining how changes in area and/or volume of a figure affect one or more dimensions of the figure; and	Demonstrate an understanding of similarity in terms of transformations.* • Show that a dilation takes a line not passing through the center of the dilation to a parallel line. • Show that dilation leaves a line passing through the center of the dilation unchanged. • Show that the dilation of a line segment creates a new line segment in the ratio of the scale factor of the dilation. • Show that transformations will result in similar figures by preserving the measure of corresponding angles and creating corresponding sides with proportional lengths. • Prove the AA criterion for similarity using transformations.
TDF.G.14.d The student will apply the concepts of similarity to two- . . . dimensional geometric figures. This will include solving problems . . . about similar geometric figures	Demonstrate an understanding of the properties of a sector of a circle and apply them to solve problems. • Convert between radian measure and angle measure. • Recognize and show that #r is the length of the arc intercepted by an angle. • Recognize and show that (#r^2)/2 is the formula for the area of a sector of a circle.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
TDF.G.14.d The student will apply the concepts of similarity to two- . . . dimensional geometric figures. This will include solving problems, including practical problems, about similar geometric figures	Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems. • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems.
TDF.G.14.d The student will apply the concepts of similarity to two- or three-dimensional geometric figures. This will include solving problems, including practical problems, about similar geometric figures	Demonstrate an understanding of similarity in terms of transformations.* • Show that a dilation takes a line not passing through the center of the dilation to a parallel line. • Show that dilation leaves a line passing through the center of the dilation unchanged. • Show that the dilation of a line segment creates a new line segment in the ratio of the scale factor of the dilation. • Show that transformations will result in similar figures by preserving the measure of corresponding angles and creating corresponding sides with proportional lengths. • Prove the AA criterion for similarity using transformations. Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Solve problems using similarity criteria for triangles. • Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse. • Prove the Pythagorean Theorem using similar triangles. Demonstrate an understanding of the similarity of circles and describe relationships of segments in circles and use them to solve problems.* • Use transformations to prove that any two circles are similar. • Identify and describe relationships among angles, chords, and tangents; including central, inscribed, and circumscribed angles. • Recognize that an inscribed angle on a diameter is right. • Recognize that the radius of a circle is perpendicular to a tangent of the circle where the radius intersects the circle. • Recognize and prove that the opposite angles of a quadrilateral inscribed in a circle are supplementary. • Construct an inscribed or circumscribed circle of a triangle, using a virtual compass and straight edge.
AF.AFDA.1.a The student will investigate and analyze linear, quadratic, exponential, and logarithmic function families and their characteristics. Key concepts include domain and range	Demonstrate an understanding of functions, apply functional notation, and evaluate functions. * • Understand the definition of a function in terms of its domain and range; Understand that f(x) denotes the graph of the ordered pairs of the output (the y-coordinates) corresponding to the input (the x-coordinates).

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Use function notation to interpret linear and exponential functions and parts of these functions in real-world contexts. Evaluate linear and exponential functions given inputs from their domains. • Recognize that geometric and arithmetic sequences are functions that are defined by determining the next number in the sequence (i.e., recursively). Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph.
AF.AFDA.1.b The student will investigate and analyze linear, quadratic, exponential, and logarithmic function families and their characteristics. Key concepts include intervals on which a function is increasing or decreasing	Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph.
AF.AFDA.1.c The student will investigate and analyze linear, quadratic, exponential, and logarithmic function families and their characteristics. Key concepts include absolute maxima and minima	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/ or simple exponential functions each represented in a different way. Analyze, perform operations, and solve quadratic expressions and equations. *

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Factor quadratic expressions • Determine the maximum or minimum of a quadratic function by completing the square. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph.
AF.AFDA.1.d The student will investigate and analyze linear, quadratic, exponential, and logarithmic function families and their characteristics. Key concepts include zeros	Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Analyze, perform operations, and solve quadratic expressions and equations. * • Factor quadratic expressions • Determine the maximum or minimum of a quadratic function by completing the square. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.*
AF.AFDA.1.e The student will investigate and analyze linear, quadratic, exponential, and logarithmic function families and their characteristics. Key concepts include intercepts	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
AF.AFDA.1.f The student will investigate and analyze linear, quadratic, exponential, and logarithmic function families and their characteristics. Key concepts include values of a function for elements in its domain	Demonstrate an understanding of functions, apply functional notation, and evaluate functions. * • Understand the definition of a function in terms of its domain and range; Understand that f(x) denotes the graph of the ordered pairs of the output (the y-coordinates) corresponding to the input (the x-coordinates). • Use function notation to interpret linear and exponential functions and parts of these functions in real-world contexts. Evaluate linear and exponential functions given inputs from their domains. • Recognize that geometric and arithmetic sequences are functions that are defined by determining the next number in the sequence (i.e., recursively).

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
AF.AFDA.1.g The student will investigate and analyze linear, quadratic, exponential, and logarithmic function families and their characteristics. Key concepts include connections between and among multiple representations of functions using verbal descriptions, tables, equations, and graphs	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions. Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. *

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Compare and analyze the growth of exponential functions using tables or graphs to other functions. * • Compare to linear functions • Compare to other exponential functions • Compare to quadratic functions • Compare to simple polynomial functions of degree 3 or higher
AF.AFDA.1.h The student will investigate and analyze linear, quadratic, exponential, and logarithmic function families and their characteristics. Key concepts include end behavior; and	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
AF.AFDA.1.i The student will investigate and analyze linear, quadratic, exponential, and logarithmic function families and their characteristics. Key concepts include vertical and horizontal asymptotes	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
AF.AFDA.2 The student will use knowledge of [translation] transformations to write an equation, given the graph of a linear . . . [or] exponential . . . function.	Analyze translations of linear functions and exponential functions. • Determine the impact on the graph of F(x) when F(x) is replaced by F(kx), kF(x), F(x+k) or F(x)+k, and determine what values of k will result in a new graph. • Use technology to represent and explain the impact of these changes on the graphs. • Determine whether a function is even or odd based on its algebraic or graphical representation.
AF.AFDA.3 The student will . . . analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems using models of linear . . . functions.	Analyze data on a scatter plot and determine a good model. • Determine if a linear model is a good fit from a scatterplot of the data. • Determine a linear function that best fits data in a scatterplot that suggests a linear model, and use the functions to estimate future trends. • Determine from a plot of the residuals of a scatterplot whether a linear model is a good fit for the data.
AF.AFDA.3 The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems	Analyze and interpret linear models in the context of measurement and data.* • Analyze and interpret the slope and intercepts of a linear model.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
using models of linear, quadratic, and exponential functions.	• Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data. • Identify associations of data that are based on correlation versus causation and explain the difference.
AF.AFDA.4 The student will use multiple representations of functions for analysis, interpretation, and prediction.	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	than linear, quadratic, or polynomial functions. Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.
AF.AFDA.4 The student will use multiple representations of [linear and exponential] functions for analysis, [and] interpretation . . .	Compare and analyze the growth of exponential functions using tables or graphs to other functions. • Compare to linear functions • Compare to other exponential functions • Compare to quadratic functions • Compare to simple polynomial functions of degree 3 or higher
AF.AFDA.4 The student will use multiple representations of [rational and radical] functions for analysis, [and] interpretation . . .	Analyze representations of rational and radical functions. • Translate between algebraic representations of functions to highlight the properties of the functions • Compare and contrast two functions that are represented in different ways

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
AF.AFDA.5 The student will determine optimal values in problem situations by identifying constraints and using linear programming techniques.	Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Solve systems of linear equations using graphing and linear combination. * • Show that linear combination results in one solution, infinitely many solutions or no solution that is shared by both lines. • Solve systems of linear equations algebraically and graphically. Represent all kinds of relationships, including simple root functions, as algebraic equations to solve mathematical and real-world problems. * • Create equations and inequalities in one variable that may include simple rational, exponential, and root functions and use them to solve problems • Create equations in two or more variables that model complex situations and graph them on the coordinate plane.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Solve systems of equations and inequalities that model complex situations, and interpret the results. • Solve literal functions that model complex situations for a specific variable, including formulas involving simple roots.
DA.AFDA.6.a The student will calculate probabilities. Key concepts include conditional probability	Use introductory probability techniques and counting rules to evaluate outcomes and determine probabilities. • Use the formula P(B|A) = P(AnB)/P(A) to determine the conditional probability of A given B and interpret the answers in real world situations. • Use the Addition Rule for dependent and independent events, and interpret the answers in real world situations. Demonstrate an understanding of conditional probability and use conditional probability in real-world situations.* • Determine the conditional probability of A given B when A and B are dependent events. Identify that A and B are independent events if P(B) is not conditional upon the occurrence of A. • Represent bivariate data in two-way frequency tables and interpret the relative frequencies to determine conditional probabilities and whether events are independent or not. • Relate real world situations to conceptual understandings of conditional probability and independence.
DA.AFDA.6.b The student will calculate probabilities. Key concepts include dependent and independent events	Demonstrate an understanding of sample spaces and independent events.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Use set notation and set vocabulary, such as union, intersection, and complement to describe sample spaces. • Identify independent events A and B as events such that the probability of A and B occurring is determined by multiplying the Probability of A by the Probability of B. Demonstrate an understanding of conditional probability and use conditional probability in real-world situations.* • Determine the conditional probability of A given B when A and B are dependent events. Identify that A and B are independent events if P(B) is not conditional upon the occurrence of A. • Represent bivariate data in two-way frequency tables and interpret the relative frequencies to determine conditional probabilities and whether events are independent or not. • Relate real world situations to conceptual understandings of conditional probability and independence.
DA.AFDA.6.c The student will calculate probabilities. Key concepts include mutually exclusive events	Use introductory probability techniques and counting rules to evaluate outcomes and determine probabilities.* • Use the formula P(B|A) = P(AnB)/P(A) to determine the conditional probability of A given B and interpret the answers in real world situations. • Use the Addition Rule for dependent and independent events, and interpret the answers in real world situations.
DA.AFDA.6.d The student will calculate probabilities. Key concepts include	Use introductory probability techniques and counting rules to evaluate outcomes and determine probabilities.*

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
counting techniques (permutations and combinations); and	• Use the formula P(B|A) = P(AnB)/P(A) to determine the conditional probability of A given B and interpret the answers in real world situations. • Use the Addition Rule for dependent and independent events, and interpret the answers in real world situations.
DA.AFDA.6.e The student will calculate probabilities. Key concepts include Law of Large Numbers	Determine and analyze expected values to solve problems.* • Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable. • Use theoretical probabilities to develop a probability distribution and find the expected value. • Use experimental probabilities to develop a probability distribution and find the expected value.
DA.AFDA.7.a The student will identify and describe properties of a normal distribution	Determine and analyze expected values to solve problems.* • Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable. • Use theoretical probabilities to develop a probability distribution and find the expected value. • Use experimental probabilities to develop a probability distribution and find the expected value.
DA.AFDA.7.c The student will apply properties of normal distributions to	Determine and analyze expected values to solve problems.*

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
determine probabilities associated with areas under the standard normal curve	• Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable. • Use theoretical probabilities to develop a probability distribution and find the expected value. • Use experimental probabilities to develop a probability distribution and find the expected value.
EO.AII.1.a The student will add, subtract, multiply, divide, and simplify rational algebraic expressions	Simplify expressions involving radicals and rational exponents using the properties of exponents.* Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.*
EO.AII.1.a The student will add, subtract, multiply, divide, and simplify rational algebraic expressions [with linear or quadratic denominators]	Rewrite rational expressions with linear and quadratic denominators. • Determine the quotient of simple rational expressions that have linear or quadratic denominators. For example, write a(x)/b(x) in the form q(x) + r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x), using factoring, synthetic division, or long division • Add, subtract, multiply, and divide rational expressions with linear or quadratic denominators
EO.AII.1.b The student will . . . simplify radical expressions containing rational numbers . . . and expressions containing rational exponents; and	Demonstrate an understanding of rational exponents and use them in representations of radicals; convert between algebraic representations that use radicals or rational exponents.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Simplify expressions involving radicals and rational exponents using the properties of exponents.
EO.AII.1.b The student will add, subtract, multiply, divide, and simplify radical expressions containing rational numbers and variables, and expressions containing rational exponents; and	Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.*
EO.AII.1.c The student will factor polynomials completely in one . . . variable . . .	Use inspection and completing the square to solve quadratic equations.
EO.AII.1.c The student will factor polynomials completely in one or two variables	Analyze, perform operations, and solve quadratic expressions and equations. * • Factor quadratic expressions • Determine the maximum or minimum of a quadratic function by completing the square. Rewrite rational expressions with linear and quadratic denominators. * • Determine the quotient of simple rational expressions that have linear or quadratic denominators. For example, write a(x)/b(x) in the form q(x) + r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x), using factoring, synthetic division, or long division • Add, subtract, multiply, and divide rational expressions with linear or quadratic denominators
EO.AII.2 The student will perform operations on complex numbers and express the results in simplest form using patterns of the powers of i.	Find and use conjugates of complex numbers * • Find the conjugate of a complex number • Find the moduli of complex numbers • Find quotients of complex numbers

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Demonstrate a deep understanding of complex numbers by using them in polynomial theorems and identities. * • Use complex numbers in rewriting algebraic expressions. • Determine the number of roots for a polynomial of any degree. • Prove that all quadratic polynomials have two roots.
EI.AII.3.a The student will solve absolute value linear equations and inequalities	Represent and solve linear and simple exponential equations graphically. * • Demonstrate an understanding that the graph of an equation in two variables is the set of all the ordered pairs in the coordinate plane that are solutions to the equation. • Recognize that when the graphs of two functions intersect, the x-value of the point of intersection produces the same y-value in both functions such that f(x)=g(x); estimate these intersections by graphing, creating tables of x- and y- values, or finding successive approximations. • Graph half-planes to represent linear inequalities in two variables; graph the solution set to a system of linear inequalities in two variables as the intersection of half-planes. Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
EI.AII.3.b The student will solve quadratic equations over the set of complex numbers	Analyze, perform operations, and solve quadratic expressions and equations. * • Factor quadratic expressions • Determine the maximum or minimum of a quadratic function by completing the square. Demonstrate a deep understanding of complex numbers by using them in polynomial theorems and identities. * • Use complex numbers in rewriting algebraic expressions. • Determine the number of roots for a polynomial of any degree. • Prove that all quadratic polynomials have two roots. Use inspection and completing the square to solve quadratic equations.*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
EI.AII.3.c The student will solve equations containing rational algebraic expressions; and	Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior. Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.*
EI.AII.3.d The student will solve equations containing radical expressions	Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Solve simple radical and rational equations, including those with extraneous solutions and justify reasoning.*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
EI.AII.4 The student will solve systems of linear-quadratic and quadratic-quadratic equations, algebraically and graphically.	Represent all kinds of relationships, including simple root functions, as algebraic equations to solve mathematical and real-world problems. * • Create equations and inequalities in one variable that may include simple rational, exponential, and root functions and use them to solve problems • Create equations in two or more variables that model complex situations and graph them on the coordinate plane. • Solve systems of equations and inequalities that model complex situations, and interpret the results. • Solve literal functions that model complex situations for a specific variable, including formulas involving simple roots.
F.AII.5 The student will investigate and apply the properties of arithmetic and geometric sequences and series to solve practical problems . . .	Construct new representations of functions from algebraic, graphic, numerical, or verbal representations of linear and exponential functions. • Determine an algebraic expression or steps for calculation of a linear or exponential function that model real world situations. • Create new functions by using arithmetic operations on functions. • Write algebraic expression or steps for calculation to determine terms in arithmetic and geometric sequences and convert from one representation to the other.
F.AII.5 The student will investigate and apply the properties of arithmetic and geometric sequences and series to solve practical problems, including writing the	Demonstrate an understanding of functions, apply functional notation, and evaluate functions. *

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
first n terms, determining then nth term, and evaluating summation formulas. Notation will include Sigma and a subscrtipt n.	• Understand the definition of a function in terms of its domain and range; Understand that f(x) denotes the graph of the ordered pairs of the output (the y-coordinates) corresponding to the input (the x-coordinates). • Use function notation to interpret linear and exponential functions and parts of these functions in real-world contexts. Evaluate linear and exponential functions given inputs from their domains. • Recognize that geometric and arithmetic sequences are functions that are defined by determining the next number in the sequence (i.e., recursively). Derive formulas and use them to solve problems. Derive the formula Sn=a(1+r^n)/(1+r) for the sum of a finite geometric series (when the common ratio is not 1), and use this formula to solve problems.*
F.AII.6.a For absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic functions, the student will recognize the general shape of function families; and	Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	a specified interval using an equation or table, or estimate the rate of change using a graph. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing,

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval.
F.AII.6.b For absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic functions, the student will use knowledge of transformations to convert between equations and the corresponding graphs of functions	Represent, describe, and model transformations in the plane.* • Represent and describe transformations in the plane as functions. Contrast transformations that are rigid motions to transformations that contain dilations. • Identify and describe transformations that carry quadrilaterals and regular polygons onto themselves. • Develop definitions of the rigid motion transformations using the geometric terms of parallel lines, perpendicular lines, angles, and circles.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Represent the image of a given rigid motion transformation given the pre-image and the specific rotation, translation, or reflection. Determine what sequence of transformations will carry the pre-image of a figure onto its image. Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval.
F.AII.7.a The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include domain, range, and continuity	Demonstrate an understanding of functions, apply functional notation, and evaluate functions. * • Understand the definition of a function in terms of its domain and range; Understand that f(x) denotes the graph of the ordered pairs of the output (the y-coordinates) corresponding to the input (the x-coordinates). • Use function notation to interpret linear and exponential functions and parts of these functions in real-world contexts. Evaluate linear and exponential functions given inputs from their domains. • Recognize that geometric and arithmetic sequences are functions that are defined by determining the next number in the sequence (i.e., recursively). Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval. Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
F.AII.7.b The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include intervals in which a function is increasing or decreasing	Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing,

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval.
F.AII.7.c The student will investigate and analyze . . . quadratic . . . function families algebraically and graphically. Key concepts include extrema	Analyze, perform operations, and solve quadratic expressions and equations. • Factor quadratic expressions • Determine the maximum or minimum of a quadratic function by completing the square.
F.AII.7.c The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include extrema	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing,

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval.
F.AII.7.d The student will investigate and analyze . . . absolute value, square root, cube root, rational, polynomial, [and] exponential . . . function families . . . graphically. Key concepts include zeros	Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.
F.AII.7.d The student will investigate and analyze . . . polynomial . . . function families [of degree three or greater] algebraically and graphically. Key concepts include zeros	Determine the zeros of polynomials and use them in graphing. • Demonstrate an understanding of the Remainder and Factor theorems and use them in polynomial division problems • Find the zeros of polynomials of degree three or greater by factoring • Sketch graphs of polynomial functions using zeros
F.AII.7.d The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include zeros	Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Analyze, perform operations, and solve quadratic expressions and equations. * • Factor quadratic expressions • Determine the maximum or minimum of a quadratic function by completing the square. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
F.AII.7.e The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include intercepts	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval.

**This skill is related to the aligned standard*

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
F.AII.7.f The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include values of a function for elements in its domain	Demonstrate an understanding of functions, apply functional notation, and evaluate functions. * • Understand the definition of a function in terms of its domain and range; Understand that f(x) denotes the graph of the ordered pairs of the output (the y-coordinates) corresponding to the input (the x-coordinates). • Use function notation to interpret linear and exponential functions and parts of these functions in real-world contexts. Evaluate linear and exponential functions given inputs from their domains. • Recognize that geometric and arithmetic sequences are functions that are defined by determining the next number in the sequence (i.e., recursively).

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
F.AII.7.g The student will investigate and analyze . . . square root, cube root, [or] rational . . . function families algebraically and graphically. Key concepts include connections between and among multiple representations of functions using verbal descriptions, tables, equations, and graphs	Analyze representations of rational and radical functions. • Translate between algebraic representations of functions to highlight the properties of the functions • Compare and contrast two functions that are represented in different ways
F.AII.7.g The student will investigate and analyze linear [or] exponential . . . function families algebraically and graphically. Key concepts include connections between and among multiple representations of functions using verbal descriptions, tables, equations, and graphs	Compare and analyze the growth of exponential functions using tables or graphs to other functions. • Compare to linear functions • Compare to other exponential functions • Compare to quadratic functions • Compare to simple polynomial functions of degree 3 or higher
F.AII.7.g The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include connections between and among multiple representations of functions using verbal descriptions, tables, equations, and graphs	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions. Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. * • Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval.
F.AII.7.h The student will investigate and analyze . . . absolute value, square root, cube root, rational, polynomial, [and] exponential . . . function families . . . graphically. Key concepts include end behavior	Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.
F.AII.7.h The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include end behavior	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Compare and contrast two linear and/ or simple exponential functions each represented in a different way. Interpret linear and exponential functions in real-world and mathematical situations. * • For a linear or exponential function, interpret key features of graphs and tables in terms of the intercepts and the intervals on which the function is increasing or decreasing. • Sketch graphs of functions given the intercepts, the intervals on which the function is increasing or decreasing, and the end behavior. • Determine an appropriate domain of a function and describe its effect on the graph. • Determine the average rate of change of a linear or exponential function over a specified interval using an equation or table, or estimate the rate of change using a graph. Interpret quadratic functions in real-world and mathematical situations. * • For quadratic functions, interpret models represented as graphs and tables in terms of the intercepts, maxima, minima, and intervals where the function is increasing and decreasing. • Sketch graphs of functions given the intercepts, intervals on which the function is increasing or decreasing, symmetry, end behavior, and a maximum or a minimum of the graph. • Determine an appropriate domain of a function for its graph, using only

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	functions that could be modeled by quadratic functions or exponential functions with rational exponents. • Determine the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using an equation or table. • Estimate the average rate of change over a specified interval of a quadratic or exponential function with rational exponents using a graph. Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval. Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
F.AII.7.i The student will investigate and analyze . . . absolute value, square root, cube root, rational, polynomial, [and] exponential . . . function families . . . graphically. Key concepts include vertical and horizontal asymptotes	Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.
F.AII.7.i The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include vertical and horizontal asymptotes	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
F.AII.7.j The student will investigate and analyze . . . exponential, and logarithmic function families algebraically . . . Key concepts include inverse of a function; and	Demonstrate an understanding of the connection between exponential and logarithmic relationships. • Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents. • Translate between logarithmic equations of base 2, 10 or e, and their exponential forms.
F.AII.7.j The student will investigate and analyze . . . square root, cube root, rational [or] exponential . . . function families algebraically . . . Key concepts include inverse of a function; and	Determine whether an exponential, simple radical, rational, or logarithmic function has an inverse and if so, write an expression for the inverse.
F.AII.7.j The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include inverse of a function; and	Construct new representations of a variety of functions from algebraic, graphical, numerical, or verbal representations. * • Create new functions using arithmetic operations by combining standard functions, such as polynomial functions, rational functions, logarithmic functions, absolute value functions, piece-wise defined functions, step functions, etc. • Demonstrate an understanding of composition of functions; state the

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	domain and range for newly composed functions and represent functions that are compositions of functions algebraically.
F.AII.7.j The student will investigate and analyze linear, quadratic, [or] absolute value . . . function families algebraically . . . Key concepts include inverse of a function; and	Determine whether a linear, quadratic, or absolute value function has an inverse and write the inverse function.
F.AII.7.k The student will investigate and analyze linear . . . [or] exponential . . . function families algebraically and graphically. Key concepts include composition of functions algebraically and graphically	Construct new representations of functions from algebraic, graphic, numerical, or verbal representations of linear and exponential functions. • Determine an algebraic expression or steps for calculation of a linear or exponential function that model real world situations. • Create new functions by using arithmetic operations on functions. • Write algebraic expression or steps for calculation to determine terms in arithmetic and geometric sequences and convert from one representation to the other.
F.AII.7.k The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential, and logarithmic function families algebraically and graphically. Key concepts include composition of functions algebraically and graphically	Construct new representations of a variety of functions from algebraic, graphical, numerical, or verbal representations. * • Create new functions using arithmetic operations by combining standard functions, such as polynomial functions, rational functions, logarithmic functions, absolute value functions, piece-wise defined functions, step functions, etc. • Demonstrate an understanding of composition of functions; state the domain and range for newly composed functions and represent functions

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	that are compositions of functions algebraically.
F.AII.8 The student will investigate . . . the relationships among solutions of an equation, zeros of a function, x-intercepts of a graph, and factors of a polynomial expression [of degree three or greater].	Determine the zeros of polynomials and use them in graphing. • Demonstrate an understanding of the Remainder and Factor theorems and use them in polynomial division problems • Find the zeros of polynomials of degree three or greater by factoring • Sketch graphs of polynomial functions using zeros
F.AII.8 The student will investigate and describe the relationships among solutions of an equation, zeros of a function, x-intercepts of a graph, and factors of a polynomial expression.	Apply Polynomial Identities in proofs and applications. * • Use algebraic properties to demonstrate the validity of polynomial identities and apply them to mathematical and real world situations. • Demonstrate an understanding of the Binomial theorem and apply it in mathematical and real world situations.
S.AII.9 The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems, using mathematical models of quadratic and exponential functions.	Analyze data on a scatter plot and determine a good model.* • Determine if a linear model is a good fit from a scatterplot of the data. • Determine a linear function that best fits data in a scatterplot that suggests a linear model, and use the functions to estimate future trends. • Determine from a plot of the residuals of a scatterplot whether a linear model is a good fit for the data.
S.AII.10 The student will represent and solve problems, including practical problems, involving inverse variation, joint variation, and a combination of direct and inverse variations.	Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions. Analyze data on a scatter plot and determine a good model.* • Determine if a linear model is a good fit from a scatterplot of the data. • Determine a linear function that best fits data in a scatterplot that suggests a linear model, and use the functions to estimate future trends. • Determine from a plot of the residuals of a scatterplot whether a linear model is a good fit for the data. Analyze and interpret linear models in the context of measurement and data.* • Analyze and interpret the slope and intercepts of a linear model. • Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data.

Grades 10 - 11 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Identify associations of data that are based on correlation versus causation and explain the difference.
S.AII.11.a The student will identify and describe properties of a normal distribution	Determine and analyze expected values to solve problems.* • Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable. • Use theoretical probabilities to develop a probability distribution and find the expected value. • Use experimental probabilities to develop a probability distribution and find the expected value.

Grades 11 - 12

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
TCTF.T.1 The student, given a point on the terminal side of an angle in standard position, or the value of the trigonometric function of the angle, will determine the sine, cosine, tangent, cotangent, secant, and cosecant of the angle.	Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems.* • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems. Demonstrate an understanding of the unit circle and how it relates to trigonometric functions. * • Demonstrate a conceptual understanding of radian measure as arc length • Demonstrate a conceptual understanding between angle measures represented in degrees or radians in all four quadrants of the unit circle Use the unit circle to determine the lengths of the sides of special right triangles and to explain periodicity. * • Use the unit circles and special right triangles to compute the values of the trigonometric ratios for angles with reference angles equal to 30, 45, 60, and 90 degrees • Explain periodicity using the unit circle • Explain even and odd symmetry using the unit circle

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
TCTF.T.2 The student will develop and apply the properties of the unit circle in degrees and radians.	Demonstrate an understanding of the unit circle and how it relates to trigonometric functions. • Demonstrate a conceptual understanding of radian measure as arc length • Demonstrate a conceptual understanding between angle measures represented in degrees or radians in all four quadrants of the unit circle Use the unit circle to determine the lengths of the sides of special right triangles and to explain periodicity. * • Use the unit circles and special right triangles to compute the values of the trigonometric ratios for angles with reference angles equal to 30, 45, 60, and 90 degrees • Explain periodicity using the unit circle • Explain even and odd symmetry using the unit circle
GTF.T.3.a The student, given one of the six trigonometric functions in standard form, will state the domain and the range of the function	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts.

**This skill is related to the aligned standard*

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
GTF.T.3.b The student, given one of the six trigonometric functions in standard form, will determine the amplitude, period, phase shift, vertical shift, and asymptotes	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior. Use trigonometric functions to model periodic situations given the amplitude, frequency and midline*
GTF.T.3.c The student, given one of the six trigonometric functions in standard form, will sketch the graph of the function by using transformations for at least a two-period interval; and	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior.

**This skill is related to the aligned standard*

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior. Use trigonometric functions to model periodic situations given the amplitude, frequency and midline*
GTF.T.3.d The student, given one of the six trigonometric functions in standard form, will investigate the effect of changing the parameters in a trigonometric function on the graph of the function	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior. Use trigonometric functions to model periodic situations given the amplitude, frequency and midline*
GTF.T.4 The student will graph the six inverse trigonometric functions.	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior. Use trigonometric functions to model periodic situations given the amplitude, frequency and midline*
EI.T.6 The student will solve trigonometric equations and inequalities.	Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems.* • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems.
EI.T.7 The student will determine the value of any trigonometric function and inverse trigonometric function.	Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems.* • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure.

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems. Use trigonometric functions to model periodic situations given the amplitude, frequency and midline*
ATF.T.8 The student will create and solve practical problems involving triangles.	Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems.* • Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems.
ATF.T.9.a The student will solve problems, including practical problems, involving arc length and area of sectors in circles using radians and degrees; and	Demonstrate an understanding of the properties of a sector of a circle and apply them to solve problems.* • Convert between radian measure and angle measure. • Recognize and show that #r is the length of the arc intercepted by an angle. • Recognize and show that (#r^2)/2 is the formula for the area of a sector of a circle.

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
ATF.T.9.b The student will solve problems, including practical problems, involving linear and angular velocity	Demonstrate an understanding of vectors and apply them to solve problems. * • Demonstrate an understanding that vectors are made up of magnitude and direction, represent vectors in the coordinate plane, and use vector notation • Determine the components of a vector • Solve real world problems involving vectors
DS.PS.1 The student will analyze graphical displays of univariate data, including . . . boxplots . . . and histograms, to identify and describe patterns and departures from patterns, using central tendency, spread, clusters, gaps, and outliers.	Model, describe, and interpret representations of data in one variable. • Create box plots and histograms. • Compare the measures of central tendency and the distribution of two or more sets of data. • Explain the statistical differences in the context of the data sets; state why there is a difference in shape, center, or spread.
DS.PS.2 The student will analyze numerical characteristics of univariate data sets to describe patterns and departures from patterns, using mean, median, mode, variance, standard deviation, interquartile range, range, and outliers.	Model, describe, and interpret representations of data in one variable. • Create box plots and histograms. • Compare the measures of central tendency and the distribution of two or more sets of data. • Explain the statistical differences in the context of the data sets; state why there is a difference in shape, center, or spread.
DS.PS.3 The student will compare distributions of two or more univariate data sets, numerically and graphically, analyzing center and spread (within group and between group variations), clusters and gaps, shapes, outliers, or other unusual features.	Model, describe, and interpret representations of data in one variable. • Create box plots and histograms. • Compare the measures of central tendency and the distribution of two or more sets of data. • Explain the statistical differences in the context of the data sets; state why

**This skill is related to the aligned standard*

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	there is a difference in shape, center, or spread.
DS.PS.4 The student will analyze scatterplots to identify and describe the relationship between two variables, using shape; strength of relationship; clusters; positive, negative, or no association; outliers; and influential points.	Analyze data on a scatter plot and determine a good model.* • Determine if a linear model is a good fit from a scatterplot of the data. • Determine a linear function that best fits data in a scatterplot that suggests a linear model, and use the functions to estimate future trends. • Determine from a plot of the residuals of a scatterplot whether a linear model is a good fit for the data. Analyze and interpret linear models in the context of measurement and data.* • Analyze and interpret the slope and intercepts of a linear model. • Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data. • Identify associations of data that are based on correlation versus causation and explain the difference.
DS.PS.5 The student will determine and interpret linear correlation, use the method of least squares regression to model the linear relationship between two variables, and use the residual plots to assess linearity.	Analyze and interpret linear models in the context of measurement and data.* • Analyze and interpret the slope and intercepts of a linear model. • Use technology to determine the correlation coefficient of a linear fit and use the correlation coefficient to describe how well the model fits the data. • Identify associations of data that are based on correlation versus causation and explain the difference.

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
DS.PS.7 The student, using two-way tables and other graphical displays, will analyze categorical data to describe patterns and departures from patterns and to determine marginal frequency and relative frequencies, including conditional frequencies.	Analyze, describe and summarize categorical data represented in two-way frequency tables. • Analyze and interpret joint, marginal, and conditional relative frequencies in context. • Determine possible trends or associations in the data.
P.PS.11 The student will identify and describe two or more events as complementary, dependent, independent, and/or mutually exclusive.	Demonstrate an understanding of sample spaces and independent events.* • Use set notation and set vocabulary, such as union, intersection, and complement to describe sample spaces. • Identify independent events A and B as events such that the probability of A and B occurring is determined by multiplying the Probability of A by the Probability of B. Demonstrate an understanding of conditional probability and use conditional probability in real-world situations.* • Determine the conditional probability of A given B when A and B are dependent events. Identify that A and B are independent events if P(B) is not conditional upon the occurrence of A. • Represent bivariate data in two-way frequency tables and interpret the relative frequencies to determine conditional probabilities and whether events are independent or not. • Relate real world situations to conceptual understandings of conditional probability and independence.

**This skill is related to the aligned standard*

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
P.PS.12 The student will determine probabilities (relative frequency and theoretical), including conditional probabilities for events that are either dependent or independent, by applying the Law of Large Numbers concept, the addition rule, and the multiplication rule.	Demonstrate an understanding of conditional probability and use conditional probability in real-world situations.* • Determine the conditional probability of A given B when A and B are dependent events. Identify that A and B are independent events if P(B) is not conditional upon the occurrence of A. • Represent bivariate data in two-way frequency tables and interpret the relative frequencies to determine conditional probabilities and whether events are independent or not. • Relate real world situations to conceptual understandings of conditional probability and independence. Use introductory probability techniques and counting rules to evaluate outcomes and determine probabilities.* • Use the formula P(B|A) = P(AnB)/P(A) to determine the conditional probability of A given B and interpret the answers in real world situations. • Use the Addition Rule for dependent and independent events, and interpret the answers in real world situations. Determine and analyze expected values to solve problems.* • Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable.

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Use theoretical probabilities to develop a probability distribution and find the expected value. • Use experimental probabilities to develop a probability distribution and find the expected value.
P.PS.15 The student will identify random variables as independent or dependent and determine the mean and standard deviations for random variables and sums and differences of independent random variables.	Determine and analyze expected values to solve problems.* • Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable. • Use theoretical probabilities to develop a probability distribution and find the expected value. • Use experimental probabilities to develop a probability distribution and find the expected value. Calculate expected values and use them to evaluate real-world decisions.* • Find the expected profit or loss given a probability distribution in a context of a game of chance. • Make, evaluate, and compare high-level strategic and financial decisions based on expected values.
P.PS.16 The student will identify properties of a normal distribution and apply the normal distribution to determine probabilities.	Determine and analyze expected values to solve problems. • Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable.

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Use theoretical probabilities to develop a probability distribution and find the expected value. • Use experimental probabilities to develop a probability distribution and find the expected value. Calculate expected values and use them to evaluate real-world decisions. • Find the expected profit or loss given a probability distribution in a context of a game of chance. • Make, evaluate, and compare high-level strategic and financial decisions based on expected values.
IS.PS.17 The student, given data from a large sample, will determine and interpret appropriate point estimates and confidence intervals for parameters. The parameters will include proportion and mean, difference between two proportions, difference between two means (independent and paired), and slope of a least-squares regression line.	Determine and analyze expected values to solve problems.* • Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable. • Use theoretical probabilities to develop a probability distribution and find the expected value. • Use experimental probabilities to develop a probability distribution and find the expected value.
IS.PS.18 The student will apply and interpret the logic of an appropriate hypothesis-testing procedure. Tests will include large sample tests for proportion, mean, difference between two proportions, difference between two means (independent and paired); chi-squared tests for goodness of fit, homogeneity of proportions, and	Model, describe, and interpret representations of data in one variable.* • Create box plots and histograms. • Compare the measures of central tendency and the distribution of two or more sets of data. • Explain the statistical differences in the context of the data sets; state why

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
independence; and slope of a least-squares regression line.	there is a difference in shape, center, or spread.
IS.PS.19 The student will identify the meaning of sampling distribution with reference to random variable, sampling statistic, and parameter and explain the Central Limit Theorem. This will include sampling distribution of a sample proportion, a sample mean, a difference between two sample proportions, and a difference between two sample means.	Model, describe, and interpret representations of data in one variable.* • Create box plots and histograms. • Compare the measures of central tendency and the distribution of two or more sets of data. • Explain the statistical differences in the context of the data sets; state why there is a difference in shape, center, or spread. Determine and analyze expected values to solve problems.* • Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable. • Use theoretical probabilities to develop a probability distribution and find the expected value. • Use experimental probabilities to develop a probability distribution and find the expected value.
IS.PS.20 The student will identify properties of a t-distribution and apply t-distributions to single-sample and two-sample (independent and matched pairs) t-procedures.	Determine and analyze expected values to solve problems.* • Determine values for the events in a sample space associated with a random variable; graph the resulting probability distribution. • Determine and interpret the expected value of a random variable. • Use theoretical probabilities to develop a probability distribution and find the expected value.

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Use experimental probabilities to develop a probability distribution and find the expected value.
RO.DM.12.a The student will use the recursive process and difference equations with the aid of appropriate technology to generate compound interest	Construct new representations of functions from algebraic, graphic, numerical, or verbal representations of linear and exponential functions. * • Determine an algebraic expression or steps for calculation of a linear or exponential function that model real world situations. • Create new functions by using arithmetic operations on functions. • Write algebraic expression or steps for calculation to determine terms in arithmetic and geometric sequences and convert from one representation to the other.
RO.DM.12.b The student will use the recursive process and difference equations with the aid of appropriate technology to generate sequences and series	Construct new representations of functions from algebraic, graphic, numerical, or verbal representations of linear and exponential functions. * • Determine an algebraic expression or steps for calculation of a linear or exponential function that model real world situations. • Create new functions by using arithmetic operations on functions. • Write algebraic expression or steps for calculation to determine terms in arithmetic and geometric sequences and convert from one representation to the other. Demonstrate an understanding of functions, apply functional notation, and evaluate functions. *

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Understand the definition of a function in terms of its domain and range; Understand that f(x) denotes the graph of the ordered pairs of the output (the y-coordinates) corresponding to the input (the x-coordinates). • Use function notation to interpret linear and exponential functions and parts of these functions in real-world contexts. Evaluate linear and exponential functions given inputs from their domains. • Recognize that geometric and arithmetic sequences are functions that are defined by determining the next number in the sequence (i.e., recursively). Derive formulas and use them to solve problems. Derive the formula Sn=a(1+r^n)/(1+r) for the sum of a finite geometric series (when the common ratio is not 1), and use this formula to solve problems.*
RO.DM.12.d The student will use the recursive process and difference equations with the aid of appropriate technology to generate population growth models; and	Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate.

**This skill is related to the aligned standard*

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions.
RO.DM.12.e The student will use the recursive process and difference equations with the aid of appropriate technology to generate the Fibonacci sequence	Construct new representations of functions from algebraic, graphic, numerical, or verbal representations of linear and exponential functions. * • Determine an algebraic expression or steps for calculation of a linear or exponential function that model real world situations. • Create new functions by using arithmetic operations on functions. • Write algebraic expression or steps for calculation to determine terms in arithmetic and geometric sequences and convert from one representation to the other.
RO.DM.13.c The student will apply the formulas of combinatorics in the areas of permutations and combinations; and	Apply Polynomial Identities in proofs and applications. * • Use algebraic properties to demonstrate the validity of polynomial identities and apply them to mathematical and real world situations. • Demonstrate an understanding of the Binomial theorem and apply it in mathematical and real world situations.
F.MA.1 The student will investigate and identify the properties of polynomial . . . functions [of degre three or higher] and sketch the graphs of the functions.	Determine the zeros of polynomials and use them in graphing. • Demonstrate an understanding of the Remainder and Factor theorems and use them in polynomial division problems • Find the zeros of polynomials of degree three or greater by factoring

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Sketch graphs of polynomial functions using zeros
F.MA.1 The student will investigate and identify the properties of polynomial, rational, piecewise, and step functions and sketch the graphs of the functions.	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/or simple exponential functions each represented in a different way. Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. * • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions. Represent linear and simple exponential relationships as algebraic equations and inequalities to solve mathematical and real-world problems. *

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Create linear and simple exponential equations and inequalities in one variable and use them to solve problems. • Create linear and simple exponential equations in two or more variables to represent relationships between quantities; graph linear and simple exponential equations on coordinate axes with labels and scales. • Represent constraints by linear equations or inequalities, and by systems of linear equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval. Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
F.MA.2 The student will investigate and identify the characteristics of exponential and logarithmic functions to graph the	Demonstrate an understanding of the connection between exponential and logarithmic relationships.

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
function, solve equations, and solve practical problems.	• Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents. • Translate between logarithmic equations of base 2, 10 or e, and their exponential forms. Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/ or simple exponential functions each represented in a different way. Simplify expressions involving radicals and rational exponents using the properties of exponents.* Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior.

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
F.MA.3 The student will apply . . . inverses of functions . . . to . . . situations	Demonstrate an understanding of the connection between exponential and logarithmic relationships. • Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents. • Translate between logarithmic equations of base 2, 10 or e, and their exponential forms.
F.MA.3 The student will apply compositions of functions . . . to . . . situations and investigate and verify the domain and range of resulting functions.	Construct new representations of a variety of functions from algebraic, graphical, numerical, or verbal representations. • Create new functions using arithmetic operations by combining standard functions, such as polynomial functions, rational functions, logarithmic functions, absolute value functions, piece-wise defined functions, step functions, etc. • Demonstrate an understanding of composition of functions; state the domain and range for newly composed functions and represent functions that are compositions of functions algebraically.
F.MA.3 The student will apply compositions of functions and inverses of functions to practical situations and	Determine whether a linear, quadratic, or absolute value function has an inverse and write the inverse function.*

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
investigate and verify the domain and range of resulting functions.	Determine whether an exponential, simple radical, rational, or logarithmic function has an inverse and if so, write an expression for the inverse.*
F.MA.4 The student will determine the limit of an algebraic function, if it exists, as the variable approaches either a finite number or infinity.	Analyze, compare, and contrast representations of linear and exponential functions * • Graph linear functions and specify intercepts. • Graph exponential functions, specify intercepts and explain end behavior. • Compare and contrast two linear and/ or simple exponential functions each represented in a different way. Graphically solve problems using polynomial, rational, radical, absolute value, and exponential equations or inequalities.* Interpret a variety of functions, including rational and root functions, in real-world and mathematical situations. * • For rational, square root, and cube root functions, interpret models represented as graphs and tables in terms of intercepts; intervals on which the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; and end behavior. • Sketch graphs of rational, square root, and cube root functions using the intercepts; intervals on which the function is increasing or decreasing; intervals on which the function is positive or negative; symmetry; end

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	behavior; and any maximums or minimums of the graphs. • Determine an appropriate domain of a function and relate it to its graph. Use only functions that could be modeled by rational, square root, and cube root functions. • Determine and interpret the average rate of change of a rational, square root, or cube root function presented in an equation or table over a specified interval. • Estimate the rate of change of a rational, square root, or cube root function from a graph over a specified interval. Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. * • Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
F.MA.5 The student will investigate and describe the continuity of functions.	Graph square root, cube root, piece-wise-defined, step-, absolute-value, logarithmic, trigonometric, and rational functions. *

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Graph a variety of functions including square root, cube root, piece-wise-defined, step, and absolute value functions. • Graph polynomial functions of degree 3 or greater; identify the intercepts and describe end-behavior. • Graph logarithmic functions; identify intercepts and end-behavior. • Graph trigonometric functions; identify periodicity, amplitude, phase shift, and intercepts. • Graph rational functions; identify points of discontinuity, asymptotes and end-behavior.
AG.MA.6 The student will investigate, graph, and identify the properties of conic sections from equations in vertex and standard form.	Derive equations of simple conic sections: parabolas and circles.* • Use the Pythagorean theorem to derive the equation of a circle. • Find the center and radius of a circle given by completing the square. • Given the focus and directrix, derive the equation of a parabola.
AG.MA.7 The student will perform operations with vectors in the coordinate plane and solve practical problems using vectors.	Demonstrate an understanding of vectors and apply them to solve problems. * • Demonstrate an understanding that vectors are made up of magnitude and direction, represent vectors in the coordinate plane, and use vector notation • Determine the components of a vector • Solve real world problems involving vectors Use algebraic and geometric representations of vectors to add and subtract vectors. * • Add vectors and demonstrate an understanding that when vectors are added, the magnitude of the resulting

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	vector is not necessarily the sum of the magnitudes of the two original vectors • Determine the magnitude and direction of the sum of two vectors • Demonstrate an understanding of vector subtraction where **-w** is the additive inverse of **w**, and represent vector subtraction in the plane Demonstrate an understanding of scalar multiplication of vectors by representing the product graphically and by computing magnitude and direction of vectors multiplied by scalars. * • Represent scalar multiplication of vectors in the plane. Perform scalar multiplication on vectors • Determine the magnitude of a vector that is a result of scalar multiplication. • Determine the direction of a vector that is a result of scalar multiplication
AG.MA.8 The student will identify, create, and solve practical problems involving triangles.	Solve problems and prove relationships about triangles using congruence and similarity.* • Solve problems using congruence criteria for triangles. • Solve problems using similarity criteria for triangles. • Prove that a line parallel to one side of a triangle divides the other two proportionally and the converse. • Prove the Pythagorean Theorem using similar triangles. Demonstrate an understanding of trigonometric ratios and use them to solve real-world and mathematical problems.*

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	• Understand that sine, cosine, and tangent are ratios of sides in a right triangle and the ratios remain constant for each angle measure. • Demonstrate that sin x = cos (90-x), and use this fact to solve problems in right triangles. • Use first quadrant sine, cosine, and tangent ratios along with the Pythagorean Theorem to solve real world problems.
DM.MA.12 The student will expand binomials having positive integral exponents.	Apply Polynomial Identities in proofs and applications. * • Use algebraic properties to demonstrate the validity of polynomial identities and apply them to mathematical and real world situations. • Demonstrate an understanding of the Binomial theorem and apply it in mathematical and real world situations.
DM.MA.13 The student will determine the sum of finite and infinite convergent series.	Derive formulas and use them to solve problems. Derive the formula Sn=a(1+r^n)/(1+r) for the sum of a finite geometric series (when the common ratio is not 1), and use this formula to solve problems.*
DM.MA.14 The student will use mathematical induction to prove formulas and mathematical statements.	Analyze, compare, and contrast linear and exponential models in real-world and mathematical situations. • Show that linear functions have a constant rate of change regardless of intervals, and that for exponential functions, the rate of change over one interval is a factor or multiple of the rate of change over another interval. • Identify situations in which one quantity changes at a constant rate over one

Grades 11 - 12 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Diagnostic Skills
	interval, but at a different rate of change over another interval. • Identify situations that have a constant percent growth or decay rate. • Demonstrate using different representations of functions that exponential graphs grow more quickly than linear, quadratic, or polynomial functions. Derive formulas and use them to solve problems. Derive the formula Sn=a(1+r^n)/(1+r) for the sum of a finite geometric series (when the common ratio is not 1), and use this formula to solve problems.*

Appendix E – Correlations of *i-Ready Personalized Instruction* to Virginial Standards of Learning K–8 Math and Reading

Correlation of Mathematics Standards of Learning for Virginia Public Schools to i-Ready Personalized Instruction

Grade K

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.K.1.a The student will tell how many are in a given set of 20 or fewer objects by counting orally; and	Count up to 10 Objects in Rows or Arrays Practice: Count up to 10 Objects in Rows or Arrays Count up to 10 Objects in Different Arrangements Practice: Count up to 10 Objects, Part 1 Practice: Count up to 10 Objects, Part 2 Make Groups of up to 10 Objects* Practice: Count and Make Groups to 10, Part 1* Practice: Count and Make Groups to 10, Part 2* Count up to 20 Objects Practice: Count up to 20 Objects Make Groups of up to 20 Objects* Practice: Make Groups of up to 20 Objects* Cuenta hasta 10 objetos organizados en filas o matrices Práctica: Cuenta hasta 10 objetos organizados en filas o matrices

**This lesson is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Cuenta hasta 10 objetos organizados de distintas maneras Práctica: Cuenta hasta 10 objetos, Parte 1 Práctica: Cuenta hasta 10 objetos, Parte 2 Forma grupos de hasta 10 objetos* Práctica: Cuenta y forma grupos hasta 10, Parte 1* Práctica: Cuenta y forma grupos hasta 10, Parte 2* Cuenta hasta 20 objetos Práctica: Cuenta hasta 20 objetos Forma grupos de hasta 20 objetos* Práctica: Forma grupos de hasta 20 objetos*
NS.K.1.b The student will . . . represent numbers . . .	Count up to 3 Objects Count up to 5 Objects Count up to 10 Objects in Rows or Arrays Practice: Count up to 10 Objects in Rows or Arrays Cuenta hasta 3 objetos Cuenta hasta 5 objetos

**This lesson is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Cuenta hasta 10 objetos organizados en filas o matrices Práctica: Cuenta hasta 10 objetos organizados en filas o matrices
NS.K.1.b The student will read, write, and represent numbers from 0 through 20	Find One More* Count up to 20 Objects* Practice: Count up to 20 Objects* Halla uno más* Cuenta hasta 20 objetos* Práctica: Cuenta hasta 20 objetos*
NS.K.2.a The student . . . will compare and describe one set as having more, fewer, or the same number of objects as the other set(s); and	Compare Numbers Within 10 Compara números hasta 10
NS.K.2.a The student, given . . . sets [of] . . . concrete objects, will compare and describe one set as having more, fewer, or the same number of objects as the other set(s); and	More Less Más Menos
NS.K.2.b The student . . . will compare . . . sets . . .	Compare Numbers Within 10 Compara números hasta 10
NS.K.2.b The student, given no more than three sets, each set containing 10 or fewer concrete objects, will compare and order	More* Less*

**This lesson is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
sets from least to greatest and greatest to least	Más* Menos*
NS.K.3.a The student will count forward orally by ones . . .	Order Numbers to 10 Order Numbers to 20 Ordena números hasta 10 Ordena números hasta 20 Practice: Order Numbers 1 to 20 Práctica: Ordena números del 1 al 20
NS.K.3.c The student will identify the number after, without counting, when given any number between 0 and 100 and identify the number before, without counting, when given any number between 1 and 10; and	Order Numbers to 10* Order Numbers to 20* Ordena números hasta 10* Ordena números hasta 20* Practice: Order Numbers 1 to 20* Práctica: Ordena números del 1 al 20*
NS.K.4.a The student will recognize and describe with fluency part-whole relationships for numbers up to 5; and	Number Partners for 3* Number Partners for 4 and 5* Number Partners for 6 and 7* Number Partners for 8 and 9* Number Partners for 10*

**This lesson is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Parejas de números para 3* Parejas de números para 4 y 5* Parejas de números para 6 y 7* Parejas de números para 8 y 9* Parejas de números para 10* Practice: Number Partners for 10* Práctica: Parejas de números para 10*
NS.K.4.b The student will investigate and describe part-whole relationships for numbers up to 10	Number Partners for 3* Number Partners for 4 and 5* Number Partners for 6 and 7* Number Partners for 8 and 9* Number Partners for 10* Parejas de números para 3* Parejas de números para 4 y 5* Parejas de números para 6 y 7* Parejas de números para 8 y 9* Parejas de números para 10* Practice: Number Partners for 10*

**This lesson is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Práctica: Parejas de números para 10*
CE.K.6 The student will model . . . problems with . . . differences . . . using concrete objects.	Understand Subtraction Subtract Within 5 Comprende Resta Resta hasta 5
CE.K.6 The student will model . . . problems with sums . . . using concrete objects.	Understand Addition Comprende Suma
CE.K.6 The student will model and solve single-step story . . . problems with . . . differences within 10, using concrete objects.	Subtract Within 10 Resta hasta 10 "Take From" Word Problems "Take From Change Unknown" Word Problems Problemas verbales de "quitar" Problemas verbales de "quitar con cambio desconocido"
CE.K.6 The student will model and solve single-step story . . . problems with sums . . . using concrete objects.	Add Within 5 Suma hasta 5
CE.K.6 The student will model and solve single-step story . . . problems with sums to 10 . . . , using concrete objects.	Add Within 10 Suma hasta 10 "Add To" and "Put Together" Word Problems

**This lesson is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	"Add To Change Unknown" Word Problems Practice: "Add To" Word Problems "Compare Bigger Unknown" Word Problems More "Compare Bigger Unknown" Word Problems Problemas verbales de "sumar" y "juntar" Problemas verbales de "sumar con cambio desconocido" Práctica: Problemas verbales de "sumar" Problemas verbales de "comparar con cantidad mayor desconocido" Más problemas verbales de "comparar con cantidad mayor desconocido"
CE.K.6 The student will model and solve single-step story . . . problems with sums to 10 and differences within 10, using concrete objects.	Practice: "Change Unknown" Word Problems "Put Together/Take Apart Addend Unknown" Problems Practice: "Put Together/Take Apart" Word Problems "Compare Difference Unknown" Word Problems

**This lesson is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Practice: "Compare Difference Unknown" Problems Practice: Comparison Word Problems "Compare Smaller Unknown" Word Problems Practice: More Comparison Word Problems "Add To Start Unknown" Word Problems "Take From Start Unknown" Word Problems More "Compare Smaller Unknown" Word Problems Práctica: Problemas verbales de "cambio desconocido" Problemas de "juntar/separar con sumando desconocido" Práctica: Problemas verbales de "juntar/ separar con sumando desconocido" Problemas verbales de "comparar con diferencia desconocida" Práctica: Problemas de "comparar con diferencia desconocida" Práctica: Problemas verbales de comparación

**This lesson is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Problemas verbales de "comparar con cantidad menor desconocido" Práctica: Más problemas verbales de comparación Problemas verbales de "sumar con comienzo desconocido" Problemas verbales de "quitar con comienzo desconocido" Más problemas verbales de "comparar con cantidad menor desconocido"
MG.K.9 The student will compare two objects or events, using direct comparisons, according to one or more of the following attributes: . . . height (taller, shorter) . . .	Taller or Shorter Más alto o más bajo
MG.K.9 The student will compare two objects or events, using direct comparisons, according to one or more of the following attributes: . . . volume (more, less) . . .	Holds More or Less Más capacidad o menos capacidad
MG.K.9 The student will compare two objects or events, using direct comparisons, according to one or more of the following attributes: . . . weight (heavier, lighter) . . .	Lighter or Heavier Más liviano o más pesado
MG.K.9 The student will compare two objects or events, using direct comparisons, according to one or more of the following attributes: length (longer, shorter) . . .	Longer or Shorter Más largo o más corto
MG.K.10.a The student will identify . . . plane figures (. . . square . . .)	Square Cuadrado
MG.K.10.a The student will identify . . . plane figures (. . . triangle . . .)	Triangle

**This lesson is related to the aligned standard*

Grade K (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Triángulo
MG.K.10.a The student will identify . . . plane figures (circle . . .)	Circle Círculo
MG.K.10.a The student will identify and describe plane figures (circle, triangle, square, and rectangle)	Identify Two-Dimensional Shapes Practice: Identify Two-Dimensional Shapes Identifica figuras bidimensionales Práctica: Identifica figuras bidimensionales
MG.K.10.c The student will describe the location of one object relative to another (above, below, next to) and identify representations of plane figures . . . regardless of their positions and orientations in space	Left and Right Izquierda y derecha
PFA.K.12 The student will sort and classify objects according to one attribute.	Different Same Sort Objects Practice: Sort Objects Diferente Igual Clasifica objetos Práctica: Clasifica objetos

**This lesson is related to the aligned standard*

Grade 1

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.1.1.a The student will count forward orally by ones to 110, starting at any number between 0 and 110	Order Numbers to 120 Practice: Order Numbers to 120 Ordena números hasta 120 Práctica: Ordena números hasta 120
NS.1.1.b The student will write the numerals 0 to 110 in sequence and out-of-sequence	Order Numbers to 120* Practice: Order Numbers to 120* Ordena números hasta 120* Práctica: Ordena números hasta 120*
NS.1.2.a The student, given up to 110 objects, will group a collection into tens and ones and write the corresponding numeral	Identify Teen Numbers* Practice: Identify Teen Numbers* Build Teen Numbers Practice: Build Teen Numbers Identify Two-Digit Numbers* Practice: Identify Two-Digit Numbers* Build Two-Digit Numbers* Practice: Build Two-Digit Numbers* Make a Ten to Add* Practice: Make a Ten to Add*

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Make a Ten to Subtract* Practice: Make a Ten to Subtract* Identifica números del 11 al 19* Práctica: Identifica números del 11 al 19* Forma números del 11 al 19 Práctica: Forma números del 11 al 19 Identifica números de dos dígitos* Práctica: Identifica números de dos dígitos* Forma números de dos dígitos* Práctica: Forma números de dos dígitos* Forma una decena para sumar* Práctica: Forma una decena para sumar* Forma una decena para restar* Práctica: Forma una decena para restar* Practice: Tens and Ones*
CE.1.6 The student will . . . solve single-step story . . . problems using . . . subtraction within [10].	"Take From" Word Problems "Take From Change Unknown" Word Problems Problemas verbales de "quitar"

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Problemas verbales de "quitar con cambio desconocido"
CE.1.6 The student will . . . solve single-step story . . . problems using addition . . . within 20.	"Compare Bigger Unknown" Word Problems Within 20
CE.1.6 The student will . . . solve single-step story . . . problems using addition . . . within [10].	"Add To" and "Put Together" Word Problems "Add To Change Unknown" Word Problems Practice: "Add To" Word Problems "Compare Bigger Unknown" Word Problems More "Compare Bigger Unknown" Word Problems Problemas verbales de "sumar" y "juntar" Problemas verbales de "sumar con cambio desconocido" Práctica: Problemas verbales de "sumar" Problemas verbales de "comparar con cantidad mayor desconocido" Más problemas verbales de "comparar con cantidad mayor desconocido"
CE.1.6 The student will . . . solve single-step story . . . problems using addition and subtraction within 20.	"Add To Start Unknown" Word Problems Within 20

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	"Take From Start Unknown" Word Problems Within 20 "Compare Smaller Unknown" Word Problems Within 20
CE.1.6 The student will . . . solve single-step story . . . problems using addition and subtraction within [10].	Practice: "Change Unknown" Word Problems "Put Together/Take Apart Addend Unknown" Problems Practice: "Put Together/Take Apart" Word Problems "Compare Difference Unknown" Word Problems Practice: "Compare Difference Unknown" Problems Practice: Comparison Word Problems "Compare Smaller Unknown" Word Problems Practice: More Comparison Word Problems "Add To Start Unknown" Word Problems "Take From Start Unknown" Word Problems More "Compare Smaller Unknown" Word Problems

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Práctica: Problemas verbales de "cambio desconocido" Problemas de "juntar/separar con sumando desconocido" Práctica: Problemas verbales de "juntar/ separar con sumando desconocido" Problemas verbales de "comparar con diferencia desconocida" Práctica: Problemas de "comparar con diferencia desconocida" Práctica: Problemas verbales de comparación Problemas verbales de "comparar con cantidad menor desconocido" Práctica: Más problemas verbales de comparación Problemas verbales de "sumar con comienzo desconocido" Problemas verbales de "quitar con comienzo desconocido" Más problemas verbales de "comparar con cantidad menor desconocido"
CE.1.7.a The student will recognize and describe with fluency part-whole relationships for numbers up to 10; and	"Add To" and "Put Together" Word Problems* Count On to Add*

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Practice: Count On to Add* "Add To Change Unknown" Word Problems* Practice: "Add To" Word Problems* Think Addition to Subtract* Count On to Subtract* "Take From" Word Problems* "Take From Change Unknown" Word Problems* Practice: "Change Unknown" Word Problems* Doubles* Doubles and Near Doubles* "Put Together/Take Apart Addend Unknown" Problems* Practice: "Put Together/Take Apart" Word Problems* "Compare Difference Unknown" Word Problems* Practice: "Compare Difference Unknown" Problems*

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	"Compare Bigger Unknown" Word Problems* Practice: Comparison Word Problems* "Compare Smaller Unknown" Word Problems* Practice: More Comparison Word Problems* Make a Ten to Add* Practice: Make a Ten to Add* Make a Ten to Subtract* Practice: Make a Ten to Subtract* Fluently Add and Subtract Within 10* "Add To Start Unknown" Word Problems* "Take From Start Unknown" Word Problems* More "Compare Bigger Unknown" Word Problems* More "Compare Smaller Unknown" Word Problems* Problemas verbales de "sumar" y "juntar"* Cuenta hacia delante para sumar*

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Práctica: Cuenta hacia delante para sumar* Problemas verbales de "sumar con cambio desconocido"* Práctica: Problemas verbales de "sumar"* Piensa en la suma para restar* Cuenta hacia delante para restar* Problemas verbales de "quitar"* Problemas verbales de "quitar con cambio desconocido"* Práctica: Problemas verbales de "cambio desconocido"* Dobles* Dobles y casi dobles* Problemas de "juntar/separar con sumando desconocido"* Práctica: Problemas verbales de "juntar/ separar con sumando desconocido"* Problemas verbales de "comparar con diferencia desconocida"* Práctica: Problemas de "comparar con diferencia desconocida"*

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Problemas verbales de "comparar con cantidad mayor desconocido"* Práctica: Problemas verbales de comparación* Problemas verbales de "comparar con cantidad menor desconocido"* Práctica: Más problemas verbales de comparación* Forma una decena para sumar* Práctica: Forma una decena para sumar* Forma una decena para restar* Práctica: Forma una decena para restar* Suma y resta hasta 10 con fluidez* Problemas verbales de "sumar con comienzo desconocido"* Problemas verbales de "quitar con comienzo desconocido"* Más problemas verbales de "comparar con cantidad mayor desconocido"* Más problemas verbales de "comparar con cantidad menor desconocido"*
CE.1.7.b The student will demonstrate fluency with . . . subtraction within 10	Count On to Subtract

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Make a Ten to Subtract Practice: Make a Ten to Subtract Cuenta hacia delante para restar Forma una decena para restar Práctica: Forma una decena para restar
CE.1.7.b The student will demonstrate fluency with addition . . . within 10.	Count On to Add Practice: Count On to Add Doubles Doubles and Near Doubles Make a Ten to Add Practice: Make a Ten to Add Cuenta hacia delante para sumar Práctica: Cuenta hacia delante para sumar Dobles Dobles y casi dobles Forma una decena para sumar Práctica: Forma una decena para sumar
CE.1.7.b The student will demonstrate fluency with addition and subtraction within 10	Add Within 10* Subtract Within 10*

**This lesson is related to the aligned standard*

Grade 1 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Suma hasta 10* Resta hasta 10* Think Addition to Subtract Fluently Add and Subtract Within 10 Piensa en la suma para restar Suma y resta hasta 10 con fluidez
MG.1.10 The student will use nonstandard units to measure . . . length . . .	Measure Lengths Mide longitudes
MG.1.11.a The student will identify, . . . describe, and sort plane figures (triangles, squares, rectangles, and circles) according to number of sides, vertices, and angles; and	Understand Attributes of Shapes Practice: Attributes of Shapes Comprende Los atributos de las figuras Práctica: Los atributos de las figuras
MG.1.11.b The student will identify and describe representations of circles, squares, rectangles, and triangles in different environments, regardless of orientation . . .	Understand Attributes of Shapes Practice: Attributes of Shapes Comprende Los atributos de las figuras Práctica: Los atributos de las figuras

**This lesson is related to the aligned standard*

Grade 2

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.2.1.a The student will . . . identify the place and value of each digit in a three-digit numeral. . .	Understand Hundreds, Tens, and Ones Use Hundreds, Tens, and Ones Practice: Use Hundreds, Tens, and Ones Practice: Place Value to Hundreds
NS.2.1.d The student will round two-digit numbers to the nearest ten	Use Place Value to Round Numbers
NS.2.4.a The student will name . . . fractions represented by a set, region, or length model for halves, fourths, . . . [and] thirds . . .	Divide Shapes Into Two, Three, or Four Equal Parts Practice: Identify Two, Three, or Four Equal Parts
NS.2.4.b The student will represent fractional parts with models and with symbols; and	Divide Shapes Into Two, Three, or Four Equal Parts* Practice: Identify Two, Three, or Four Equal Parts*
CE.2.5.a The student will recognize and use the relationships between addition and subtraction to solve single-step practical problems, with whole numbers to 20; and	Think Addition to Subtract
CE.2.5.b The student will demonstrate fluency with addition . . . within 20	Use Mental Math to Add (Make a Ten), Part 1 Use Mental Math to Add (Make a Ten), Part 2 Practice: Use Mental Math to Add (Make a Ten) Use Mental Math to Add (Near Doubles)

**This lesson is related to the aligned standard*

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Use Mental Math Strategies to Add Practice: Use Mental Math Strategies to Add Practice: Add Within 100 on Number Lines, Part 2
CE.2.5.b The student will demonstrate fluency with addition and subtraction within 20	Practice: Add Within 10* Think Addition to Subtract Think Addition to Subtract (Make a Ten) Practice: Think Addition to Subtract
CE.2.6.b The student will determine . . . differences, using various methods; and	Understand Subtraction Using Number Lines, Part 1 Practice: Subtraction Using Number Lines, Part 1 Understand Subtraction Using Number Lines, Part 2 Practice: Subtraction Using Number Lines, Part 2 Subtract Within 100 on Number Lines Practice: Subtract Within 100 on Number Lines Add to Subtract Within 100 on Number Lines, Part 1

**This lesson is related to the aligned standard*

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Practice: Add to Subtract on Number Lines, Part 1 Add to Subtract Within 100 on Number Lines, Part 2 Practice: Add to Subtract on Number Lines, Part 2 Practice: Subtract on Number Lines (Within 100)
CE.2.6.b The student will determine sums . . . , using various methods; and	Add Three Numbers in Word Problems Suma tres números en problemas verbales Understand Addition Using Number Lines Practice: Addition Using Number Lines "Add To" Word Problems Within 10 Add Within 100 on Number Lines, Part 2 "Compare Bigger Unknown" Word Problems Within 20
CE.2.6.b The student will determine sums and differences, using various methods; and	Understand Number Lines* "Add To Start Unknown" Word Problems Within 20 "Take From Start Unknown" Word Problems Within 20 "Compare Smaller Unknown" Word Problems Within 20

**This lesson is related to the aligned standard*

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.2.6.c The student will . . . solve single-step . . . problems involving addition . . .	"Add To" Word Problems Within 10 "Compare Bigger Unknown" Word Problems Within 20
CE.2.6.c The student will . . . solve single-step . . . problems involving addition and subtraction	"Add To Start Unknown" Word Problems Within 20 "Take From Start Unknown" Word Problems Within 20 "Compare Smaller Unknown" Word Problems Within 20
CE.2.6.c The student will create and solve single-step and two-step practical problems involving addition and subtraction	Add Three Numbers in Word Problems* Suma tres números en problemas verbales* Add by Breaking Apart Two-Digit Numbers* Practice: Add by Breaking Apart Two-Digit Numbers* Add Within 100 on Number Lines, Part 1* Practice: Add Within 100 on Number Lines, Part 1* Add Within 100 on Number Lines, Part 2* Subtract Within 100 on Number Lines* Practice: Subtract Within 100 on Number Lines*

**This lesson is related to the aligned standard*

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Add to Subtract Within 100 on Number Lines, Part 1* Practice: Add to Subtract on Number Lines, Part 1* Add to Subtract Within 100 on Number Lines, Part 2* Practice: Add to Subtract on Number Lines, Part 2* Practice: Add Within 100 on Number Lines* Add up to Four Two-Digit Numbers* Add Within 1,000 on Number Lines* Practice: Add Within 1,000 on Number Lines* Practice: Subtract on Number Lines (Within 100)* Subtract Within 1,000 on Number Lines* Practice: Subtract Within 1,000 on Number Lines*
MG.2.8.a The student will . . . measure length to the nearest inch; and	Measure Lengths in Inches
MG.2.8.a The student will estimate . . . length to the nearest inch; and	Estimate Lengths in Inches
MG.2.8.a The student will estimate and measure length to the nearest inch; and	Practice: Estimate Lengths

**This lesson is related to the aligned standard*

Grade 2 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Line plot and measuring length*
MG.2.12.a The student will draw a line of symmetry in a figure; and	Line Symmetry
MG.2.12.b The student will identify and create figures with at least one line of symmetry	Line Symmetry
MG.2.13 The student will identify . . . solid figures (. . . cubes . . .).	Cube Cubo
MG.2.13 The student will identify . . . solid figures (. . . spheres . . .).	Sphere Esfera
MG.2.13 The student will identify [and] describe . . . plane . . . figures (circles/ spheres, squares/cubes . . .).	Recognize and Draw Shapes Practice: Recognize Shapes
PS.2.14 The student will use data from probability experiments to predict outcomes when the experiment is repeated.	Line plot and measuring length*

**This lesson is related to the aligned standard*

Grade 3

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.3.1.b The student will round whole numbers . . . to the nearest ten [and] hundred . . .	Use Place Value to Round Numbers
NS.3.2.a The student will name and write fractions . . . represented by a model	Understand What a Fraction Is Model Fractions Practice: Build and Name Fractions Fractions on a Number Line, Part 1 Fractions on a Number Line, Part 2 Practice: Fractions on a Number Line
NS.3.2.b The student will represent fractions . . . with models and symbols; and	Understand What a Fraction Is Model Fractions Practice: Build and Name Fractions Fractions on a Number Line, Part 1 Fractions on a Number Line, Part 2 Practice: Fractions on a Number Line
NS.3.2.b The student will represent fractions and mixed numbers with models and symbols; and	Decompose Fractions* Add Mixed Numbers with Like Denominators* Subtract Mixed Numbers with Like Denominators* Practice: Add and Subtract Mixed Numbers*

**This lesson is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.3.2.c The student will compare fractions having . . . unlike denominators, using . . . symbols (>, <, = . . .), with models	Use Common Denominators to Compare Fractions Use a Benchmark to Compare Fractions Practice: Use Strategies to Compare Fractions
NS.3.2.c The student will compare fractions having . . . unlike denominators, using words and symbols (>, <, = . . .), with models	Compare Fractions with the Same Numerator
NS.3.2.c The student will compare fractions having like . . . denominators, using words and symbols (>, <, = . . .), with models	Compare Fractions with the Same Denominator
NS.3.2.c The student will compare fractions having like and unlike denominators, using . . . models	Understand Comparing Fractions
NS.3.2.c The student will compare fractions having like and unlike denominators, using words and symbols (>, <, = . . .), with models	Practice: Compare Fractions
CE.3.3.a The student will . . . determine the . . . difference of two whole numbers; and	Practice: Use Place Value to Subtract Within 1,000
CE.3.3.a The student will . . . determine the sum . . . of two whole numbers; and	Practice: Use Place Value to Add Within 1,000
CE.3.3.a The student will . . . determine the sum or difference of two whole numbers; and	Practice: Add and Subtract Within 1,000. Part 1 Practice: Add and Subtract Within 1,000. Part 2
CE.3.3.a The student will estimate and determine the sum or difference of two whole numbers; and	Add and Subtract Within 1,000

**This lesson is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.3.3.b The student will . . . solve single-step . . . practical problems involving sums or differences of two whole numbers . . .	Solve Problems About Liquid Volume Solve Problems about Mass
CE.3.3.b The student will create and solve single-step and multistep practical problems involving sums or differences of two whole numbers, each 9,999 or less	Solve Two-Step Word Problems Using the Four Operations*
CE.3.4.a The student will represent . . . division through 10 × 10, using a variety of approaches . . .	Understand Division, Part 1 Practice: Understand Division
CE.3.4.a The student will represent . . . division through 10 × 10, using a variety of approaches and models	Division Word Problems, Part 1 Practice: Division & Subtraction Word Problems Division Word Problems, Part 2 Practice: More Division & Subtraction Problems
CE.3.4.a The student will represent multiplication . . . through 10 × 10 . . .	Word Problems Involving Length and Money Multiplication Word Problems
CE.3.4.a The student will represent multiplication . . . through 10 × 10, using a variety of approaches . . .	Practice: Multiply Within 100
CE.3.4.a The student will represent multiplication . . . through 10 × 10, using a variety of approaches and models	Multiplication Word Problems, Part 1 Practice: Multiplication & Addition Word Problems Multiplication Word Problems, Part 2

**This lesson is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Practice: More Multiplication & Addition Problems Practice: Multiplication Word Problems
CE.3.4.a The student will represent multiplication and division through 10 × 10, using a variety of approaches . . .	Practice: Multiply and Divide Within 100
CE.3.4.a The student will represent multiplication and division through 10 × 10, using a variety of approaches . . .	Practice: Divide and Multiply (Within 100)
CE.3.4.a The student will represent multiplication and division through 10 × 10, using a variety of approaches and models	Understand Multiplication, Part 1* Practice: Multiples of 2* Practice: Multiplying by 10* Practice: Multiplying by 5* Practice: Multiples of 3* Practice: Multiples of 4* Practice: Multiplying by 0 and 1* Practice: Multiplication & Division Word Problems Practice: More Multiplication & Division Problems
CE.3.4.b The student will . . . solve . . . practical problems that involve multiplication . . . through 10 x 10; and	Word Problems Involving Length and Money Multiplication Word Problems

**This lesson is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.3.4.b The student will . . . solve . . . problems that involve . . . division through 10 x 10; and	Division Word Problems, Part 1 Practice: Division & Subtraction Word Problems Division Word Problems, Part 2 Practice: More Division & Subtraction Problems
CE.3.4.b The student will . . . solve . . . problems that involve multiplication . . . through 10 x 10; and	Multiplication Word Problems, Part 1 Practice: Multiplication & Addition Word Problems Multiplication Word Problems, Part 2 Practice: More Multiplication & Addition Problems Practice: Multiplication Word Problems
CE.3.4.b The student will . . . solve . . . problems that involve multiplication and division through 10 x 10; and	Practice: Multiplication & Division Word Problems Practice: More Multiplication & Division Problems
CE.3.4.b The student will create and solve single-step practical problems that involve multiplication and division through 10 x 10; and	Practice: Understand Division* Practice: Multiply and Divide Within 100* Practice: Divide and Multiply (Within 100)* Solve Two-Step Word Problems Using the Four Operations*

**This lesson is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.3.4.c The student will demonstrate fluency with multiplication facts of 0, 1, 2, 5, and 10; and	Practice: Multiply Within 100 Practice: Divide and Multiply (Within 100)
CE.3.4.c The student will represent multiplication and division through 10 × 10, using a variety of approaches . . .	Practice: Multiply and Divide Within 100
CE.3.4.d The student will solve single-step practical problems involving multiplication of whole numbers, where one factor is 99 or less and the second factor is 5 or less	Practice: Understand Division* Practice: Multiply and Divide Within 100* Practice: Divide and Multiply (Within 100)*
CE.3.5 The student will solve practical problems that involve addition and subtraction with proper fractions having like denominators of 12 or less.	Fractions as Tenths and Hundredths* Add and Subtract Fractions*
MG.3.7.a The student will . . . use U.S. Customary . . . units to measure length to the nearest ½ inch . . .	Measure Length and Plot Data on Line Plots
MG.3.7.b The student will estimate and use . . . metric units to measure liquid volume in . . . liters	Solve Problems About Liquid Volume
MG.3.8.a The student will estimate and measure the distance around a polygon in order to determine its perimeter using U.S. Customary and metric units; and	Connect Area and Perimeter*
MG.3.8.b The student will . . . count the number of square units needed to cover a given surface in order to determine its area	Understand Area
MG.3.9.a The student will tell time to the nearest minute . . .	Tell and Write Time Practice: Tell and Write Time

**This lesson is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
MG.3.9.a The student will tell time to the nearest minute, using analog and digital clocks	Solve Problems About Time
MG.3.9.b The student will solve practical problems related to elapsed time in one-hour increments within a 12- hour period; and	Solve Problems About Time*
MG.3.9.c The student will identify equivalent periods of time and solve practical problems related to equivalent periods of time	Solve Problems About Time*
MG.3.12.b The student will identify and name polygons with 10 or fewer sides; and	Understand Categories of Shapes Classify Quadrilaterals*
PS.3.15.a The student will . . . organize, and represent data in . . . bar graphs; and	Draw Scaled Bar Graphs
PS.3.15.a The student will . . . organize, and represent data in pictographs . . .	Draw Scaled Picture Graphs
PS.3.15.a The student will . . . organize, and represent data in pictographs or bar graphs; and	Practice: Draw Scaled Graphs
PS.3.15.b The student will read and interpret data represented in . . . bar graphs	Solve Problems Using Scaled Bar Graphs Practice: Solve Problems Using Scaled Bar Graphs
PS.3.15.b The student will read and interpret data represented in pictographs . . .	Solve Problems Using Scaled Picture Graphs
PFA.3.16 The student will identify, describe, create, and extend patterns found in objects, pictures, numbers and tables.	Understand Patterns*
PFA.3.17 The student will create equations to represent equivalent mathematical relationships.	Multiplication Word Problems, Part 1 Practice: Multiplication & Addition Word Problems

**This lesson is related to the aligned standard*

Grade 3 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Multiplication Word Problems, Part 2 Practice: More Multiplication & Addition Problems Practice: Multiplication Word Problems Division Word Problems, Part 1 Practice: Division & Subtraction Word Problems Division Word Problems, Part 2 Practice: More Division & Subtraction Problems Practice: Multiplication & Division Word Problems Practice: More Multiplication & Division Problems Understand Equivalent Fractions* Practice: Equivalent Fractions*

**This lesson is related to the aligned standard*

Grade 4

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.4.1.a The student will read, write, and identify the place and value of each digit in a nine-digit whole number	Practice: Place Value to Thousands* Understand Place Value* Practice: Understand Place Value* Practice: Compare Whole Numbers* Round Whole Numbers*
NS.4.1.b The student will compare and order whole numbers expressed through millions; and	Practice: Place Value to Thousands* Understand Place Value* Practice: Understand Place Value* Practice: Compare Whole Numbers*
NS.4.1.c The student will round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand	Round Whole Numbers
NS.4.2.a The student will compare . . . fractions . . . with and without models	Use Common Denominators to Compare Fractions Use a Benchmark to Compare Fractions Practice: Use Strategies to Compare Fractions
NS.4.2.b The student will represent equivalent fractions; and	Understand Equivalent Fractions Practice: Equivalent Fractions Find Equivalent Fractions Practice: Find Equivalent Fractions

**This lesson is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Decompose Fractions* Fractions as Tenths and Hundredths
NS.4.2.c The student will identify the division statement that represents a fraction, with models and in context	Find Equivalent Fractions* Practice: Find Equivalent Fractions* Understand Fractions as Division
NS.4.3.d The student will given a model, write the . . . fraction equivalents	Understand Equivalent Fractions Practice: Equivalent Fractions Find Equivalent Fractions Practice: Find Equivalent Fractions
CE.4.4.a The student will demonstrate fluency with multiplication facts through 12 x 12, and the corresponding division facts	Multiply by One-Digit Numbers, Part 1* Multiply by One-Digit Numbers, Part 2* Multiples* Practice: Multiply by One-Digit Numbers* Factors* Practice: Multiples, Factors, and Prime Numbers*
CE.4.4.b The student will . . . determine . . . products of whole numbers	Multiply Two-Digit Numbers by Two-Digit Numbers Practice: Multiply Two-Digit Numbers
CE.4.4.b The student will . . . determine sums . . . of whole numbers	Add Whole Numbers Practice: Add Whole Numbers

**This lesson is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.4.4.b The student will estimate and determine . . . differences . . . of whole numbers	Subtract Whole Numbers Practice: Subtract Whole Numbers
CE.4.4.b The student will estimate and determine sums, differences, and products of whole numbers	Solve Multi-Step Problems
CE.4.4.c The student will . . . determine quotients of whole numbers, with . . . remainders; and	Division Word Problems with Remainders, Part 1 Division Word Problems with Remainders, Part 2 Practice: Division Word Problems with Remainders Divide Whole Numbers, Part 1 Divide Whole Numbers, Part 2 Practice: Divide Whole Numbers, Part 1 Practice: Divide Whole Numbers, Part 2
CE.4.4.c The student will estimate and determine quotients of whole numbers, with and without remainders; and	Solve Multi-Step Problems
CE.4.4.d The student will . . . solve . . . practical problems involving . . . multiplication . . . with whole numbers	Multiplication Word Problems
CE.4.4.d The student will . . . solve . . . problems involving . . . multiplication . . . with whole numbers	Multiplicative Comparison Word Problems, Part 1
CE.4.4.d The student will . . . solve . . . problems involving . . . multiplication,	Practice: Multiplicative Comparison Problems

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
and . . . problems involving division with whole numbers	
CE.4.4.d The student will . . . solve . . . problems involving division with whole numbers	Multiplicative Comparison Word Problems, Part 2 Multiplicative Comparison Word Problems, Part 3 Practice: More Multiplicative Comparison Problems Division Word Problems with Remainders, Part 1 Division Word Problems with Remainders, Part 2 Practice: Division Word Problems with Remainders
CE.4.4.d The student will . . . solve single-step . . . practical problems involving addition, subtraction, and multiplication, and single-step practical problems involving division with whole numbers	Solve Word Problems Involving Measurement
CE.4.4.d The student will create and solve single-step and multistep practical problems involving addition, subtraction, and multiplication, and single-step practical problems involving division with whole numbers	Multiply by One-Digit Numbers, Part 1* Multiply by One-Digit Numbers, Part 2* Practice: Multiply by One-Digit Numbers* Solve Multi-Step Problems*
CE.4.5.a The student will determine . . . greatest common factor	Greatest Common Factor (GCF)
CE.4.5.a The student will determine . . . least common multiple . . .	Least Common Multiple (LCM)

**This lesson is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.4.5.a The student will determine . . . least common multiple and greatest common factor	Practice: GCF and LCM
CE.4.5.a The student will determine common multiples and factors, including least common multiple and greatest common factor	Multiples* Factors* Practice: Multiples, Factors, and Prime Numbers* Equivalent Expressions & the Distributive Property* Practice: Equivalent Expressions*
CE.4.5.b The student will . . . subtract fractions . . . having . . . unlike denominators; and	Subtract Fractions with Unlike Denominators
CE.4.5.b The student will . . . subtract fractions . . . having like . . . denominators; and	Subtract Fractions with Like Denominators
CE.4.5.b The student will . . . subtract fractions and mixed numbers having . . . unlike denominators; and	Subtract Mixed Numbers with Unlike Denominators
CE.4.5.b The student will . . . subtract fractions and mixed numbers having like . . . denominators; and	Subtract Mixed Numbers with Like Denominators
CE.4.5.b The student will add . . . fractions . . . having . . . unlike denominators; and	Add Fractions with Unlike Denominators
CE.4.5.b The student will add . . . fractions . . . having like . . . denominators; and	Add Fractions with Like Denominators

**This lesson is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.4.5.b The student will add . . . fractions and mixed numbers having . . . unlike denominators; and	Add Mixed Numbers with Unlike Denominators
CE.4.5.b The student will add . . . fractions and mixed numbers having like . . . denominators; and	Add Mixed Numbers with Like Denominators
CE.4.5.b The student will add and subtract fractions . . . having . . . unlike denominators; and	Practice: Fraction Addition and Subtraction
CE.4.5.b The student will add and subtract fractions . . . having like . . . denominators; and	Practice: Add and Subtract Fractions
CE.4.5.b The student will add and subtract fractions and mixed numbers having . . . unlike denominators; and	Practice: Mixed Number Addition and Subtraction
CE.4.5.b The student will add and subtract fractions and mixed numbers having like . . . denominators; and	Practice: Add and Subtract Mixed Numbers Add and Subtract Fractions
CE.4.5.c The student will solve single-step practical problems involving addition and subtraction with fractions and mixed numbers	Add and Subtract Fractions*
CE.4.6.a The student will add and subtract with decimals; and	Solve Word Problems Involving Measurement*
CE.4.6.b The student will solve single-step and multistep practical problems involving addition and subtraction with decimals	Solve Word Problems Involving Measurement*
MG.4.8.a The student will estimate and measure length and describe the result in U.S. Customary and metric units	Solve Word Problems Involving Measurement*
MG.4.8.c The student will given the equivalent measure of one unit, identify equivalent measures of length, weight/mass,	Express Measurements in Larger Units Practice: Convert Metric Units of Length

**This lesson is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
and liquid volume between units within the U.S. Customary system; and	Practice: Convert Customary Units of Length Practice: Convert Metric Units of Mass Practice: Convert Customary Units of Weight Practice: Convert Metric Units of Liquid Volume Practice: Convert Customary Units of Liquid Volume Practice: Convert Units of Time
MG.4.8.d The student will solve practical problems that involve length . . .	Multiplication Word Problems
MG.4.8.d The student will solve practical problems that involve length, weight/mass, and liquid volume . . .	Solve Word Problems Involving Measurement
MG.4.10.a The student will identify . . . lines . . . and angles . . .	Identify Angles
MG.4.10.a The student will identify . . . points, lines, line segments, [and] rays . . .	Identify Points, Lines, and Rays
MG.4.10.a The student will identify and describe points, lines, line segments, rays, and angles, including endpoints and vertices; and	Add and Subtract Angle Measures*
MG.4.10.b The student will identify . . . parallel, and perpendicular lines	Identify Angles
MG.4.11 The student will identify, . . . plane . . . figures according to their characteristics . . .	Classify Quadrilaterals Classify Triangles

**This lesson is related to the aligned standard*

Grade 4 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
MG.4.12 The student will classify quadrilaterals as a parallelograms, rectangles, squares, [and/or] rhombi . . .	Understand Categories of Shapes Classify Quadrilaterals
PFA.4.15 The student will identify, . . . create, and extend patterns found in objects, pictures, [and] numbers . . .	Number and Shape Patterns

Grade 5

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.5.1 The student, given a decimal through thousandths, will round to the nearest whole number, tenth, or hundredth.	Round decimals Practice: Round Decimals
NS.5.2.a The student will represent and identify equivalencies among fractions and decimals, with and without models; and	Fractions as Tenths and Hundredths*
NS.5.3.a The student will identify . . . prime and composite numbers; and	Factors Practice: Multiples, Factors, and Prime Numbers
CE.5.4 The student will create and solve . . . practical problems involving . . . division of whole numbers.	Understand Fractions as Division
CE.5.4 The student will create and solve single-step and multistep practical problems involving addition, subtraction, multiplication, and division of whole numbers.	Multiply Whole Numbers* Practice: Multiply Whole Numbers* Divide Whole Numbers* Practice: Divide Whole Numbers* Practice: Whole Numbers and Powers of Ten* Multiply and Divide Decimals by Powers of Ten* Practice: Decimals and Powers of Ten* Divide a Whole Number by a Unit Fraction* Practice: Multiply and Divide by Fractions*

**This lesson is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.5.5.a The student will . . . determine the . . . quotient of two numbers involving decimals; and	Divide Decimals Practice: Divide Decimals
CE.5.5.a The student will . . . determine the product . . . of two numbers involving decimals; and	Multiply Decimals
CE.5.5.b The student will create and solve single-step and multistep practical problems involving addition, subtraction, and multiplication of decimals, and create and solve single-step practical problems involving division of decimals	Add and Subtract Decimals* Practice: Add Decimals* Practice: Subtract Decimals* Multiply Decimals* Divide Decimals* Practice: Divide Decimals*
CE.5.6.a The student will solve . . . problems involving . . . subtraction with fractions . . .	Subtract Fractions with Unlike Denominators
CE.5.6.a The student will solve . . . problems involving . . . subtraction with fractions and mixed numbers; and	Subtract Mixed Numbers with Unlike Denominators
CE.5.6.a The student will solve . . . problems involving addition . . . with fractions . . .	Add Fractions with Unlike Denominators
CE.5.6.a The student will solve . . . problems involving addition . . . with fractions and mixed numbers; and	Add Mixed Numbers with Unlike Denominators
CE.5.6.a The student will solve . . . problems involving addition and subtraction with fractions . . .	Practice: Fraction Addition and Subtraction

**This lesson is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.5.6.a The student will solve . . . problems involving addition and subtraction with fractions and mixed numbers; and	Practice: Mixed Number Addition and Subtraction
CE.5.6.a The student will solve single-step and multistep practical problems involving addition and subtraction with fractions . . .	Add and Subtract Fractions in Word Problems
CE.5.6.b The student will solve single-step . . . problems involving multiplication of a whole number, limited to 12 or less, and a proper fraction, with models	Multiply a Fraction by a Whole Number Practice: Multiply a Fraction by a Whole Number Multiply a Whole Number by a Fraction Practice: Multiply and Divide by Fractions Multiply a Unit Fraction by a Unit Fraction Practice: Multiply and Divide Unit Fractions Multiply a Fraction by a Fraction Practice: Multiply a Fraction by a Fraction
CE.5.6.b The student will solve single-step . . . problems involving multiplication of a whole number, limited to 12 or less, and a proper [unit] fraction, with models	Multiply a Unit Fraction by a Whole Number Multiply a Whole Number by a Unit Fraction
CE.5.6.b The student will solve single-step practical problems involving multiplication of a whole number, limited to 12 or less, and a proper fraction, with models	Multiply Fractions to Find Area*
CE.5.7 The student will simplify . . . numerical expressions using the order of operations.	Practice: Numerical and Algebraic Expressions

**This lesson is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.5.7 The student will simplify whole number numerical expressions using the order of operations.	Write and Evaluate Expressions Practice: Interpret and Evaluate Expressions Algebraic Expressions with Exponents*
MG.5.8.a The student will solve practical problems that involve . . . volume in standard units of measure; and	Measure Volume Using Formulas
MG.5.8.a The student will solve practical problems that involve perimeter, area, and volume in standard units of measure; and	Understand and Measure Volume* Practice: Measure Volume* Practice: Volume of Rectangular Prisms* Practice: Volume of Composite Figures* Multiply Fractions to Find Area*
MG.5.9.a The student will given the equivalent measure of one unit, identify equivalent measurements . . .	Solve Problems with Measurement Conversions
MG.5.9.a The student will given the equivalent measure of one unit, identify equivalent measurements within the metric system; and	Solve Word Problems Involving Conversions
MG.5.12 The student will . . . measure right, acute, obtuse, and straight angles.	Measure Angles Practice: Measure Angles
MG.5.13.a The student will classify triangles as right, acute, or obtuse and equilateral, scalene, or isosceles; and	Classify Triangles Identify Two-Dimensional Figures* Classify Two-Dimensional Figures*

**This lesson is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
MG.5.14.b The student will investigate and describe the results of combining and subdividing polygons	Area of Parallelograms, Quadrilaterals, and Polygons*
PS.5.15 The student will determine the probability of an outcome by constructing a sample space or using the Fundamental (Basic) Counting Principle.	Probability of Compound Events*
PS.5.16.a The student, given a practical problem, will represent data in line plots . . .	Fractions on a Line Plot
PS.5.16.b The student, given a practical problem, will interpret data represented in line plots and stem-and-leaf plots; and	Fractions on a Line Plot*
PS.5.17.a The student, given a practical context, will describe mean, median, and mode as measures of center	Understand Mean and MAD*
PFA.5.18 The student will identify, . . . create, express, and extend number patterns found in . . . numbers . . .	Analyze Patterns and Relationships Practice: Analyze Patterns and Relationships
PFA.5.19.a The student will investigate and describe the concept of variable	Understand Algebraic Expressions* Write and Evaluate Algebraic Expressions* Algebraic Expressions with Exponents* Solutions of Equations* Write and Solve Addition Equations Write and Solve Multiplication Equations Practice: Write and Solve Equations Understand Inequalities*

**This lesson is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Write and Solve Inequalities*
PFA.5.19.b The student will write an equation to represent a given mathematical relationship, using a variable	Multiplicative Comparison Word Problems, Part 1* Multiplicative Comparison Word Problems, Part 2* Practice: Multiplicative Comparison Problems* Multiplicative Comparison Word Problems, Part 3* Practice: More Multiplicative Comparison Problems* Understand Algebraic Expressions* Write and Evaluate Algebraic Expressions* Algebraic Expressions with Exponents* Solutions of Equations* Write and Solve Addition Equations Write and Solve Multiplication Equations Practice: Write and Solve Equations
PFA.5.19.c The student will use an expression with a variable to represent a given verbal expression involving one operation; and	Understand Algebraic Expressions Write and Evaluate Algebraic Expressions Algebraic Expressions with Exponents

**This lesson is related to the aligned standard*

Grade 5 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Practice: Numerical and Algebraic Expressions Solutions of Equations*

**This lesson is related to the aligned standard*

Grade 6

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.6.1 The student will represent relationships between quantities using ratios, and will use appropriate notations, such as a/b, a to b, and a:b.	Understand Ratio Concepts Practice: Equivalent Ratios
NS.6.2.a The student will represent and determine equivalencies among fractions, . . . decimals, and percents; and	Understand Percent Concepts
NS.6.2.a The student will represent and determine equivalencies among fractions, mixed numbers, decimals, and percents; and	Find Percent of a Number* Solve Problems with Percent*
NS.6.2.b The student will compare and order positive rational numbers	Order Positive and Negative Numbers Practice: Positive and Negative Numbers
NS.6.3.a The student will . . . represent integers	Understand Integers
NS.6.3.a The student will identify and represent integers	Order Positive and Negative Numbers* Practice: Positive and Negative Numbers*
NS.6.3.b The student will compare and order integers; and	Understand Integers Order Positive and Negative Numbers Practice: Positive and Negative Numbers
NS.6.3.c The student will identify and describe absolute value of integers	Understand Absolute Value
NS.6.4 The student will recognize and represent patterns with whole number exponents and perfect squares.	Numerical Expressions with Exponents* Algebraic Expressions with Exponents* Practice: Numerical and Algebraic Expressions*
CE.6.5.a The student will . . . divide [unit] fractions . . .	Divide a Unit Fraction by a Whole Number

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.6.5.a The student will multiply . . . fractions . . .	Multiply a Fraction by a Fraction Practice: Multiply a Fraction by a Fraction
CE.6.5.a The student will multiply . . . [unit] fractions . . .	Multiply a Unit Fraction by a Unit Fraction
CE.6.5.a The student will multiply and divide [unit] fractions . . .	Practice: Multiply and Divide Unit Fractions
CE.6.5.b The student will solve . . . problems involving addition [and] subtraction . . . of [negative] fractions . . .	Add and Subtract Rationals Practice: Add and Subtract Rationals Practice: Strategies to Add and Subtract Rationals
CE.6.5.b The student will solve single-step and multistep practical problems involving . . . multiplication . . . of fractions . . .	Volume with Fractional Length
CE.6.5.c The student will solve . . . problems involving addition [and] subtraction . . . of [negative] decimals	Add and Subtract Rationals Practice: Add and Subtract Rationals
CE.6.5.c The student will solve multistep practical problems involving addition, subtraction, multiplication, and division of decimals	Fluently add and subtract decimals* Multiplication of Decimals* Division of Whole Numbers and Decimals* Division of Decimals*
CE.6.6.a The student will . . . divide integers	Divide Integers
CE.6.6.a The student will . . . multiply . . . integers	Multiply Integers
CE.6.6.a The student will . . . multiply, and divide integers	Practice: Multiply and Divide Integers

**This lesson is related to the aligned standard*

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.6.6.a The student will . . . subtract . . . integers	Understand Subtraction with Integers
CE.6.6.a The student will add [and] subtract . . . integers	Strategies to Add and Subtract Integers Practice: Strategies to Add and Subtract Integers
CE.6.6.b The student will solve practical problems involving . . . [multiplication and division] with integers; and	Practice: Multiply and Divide Integers
CE.6.6.b The student will solve practical problems involving operations with integers; and	Write and Evaluate Algebraic Expressions* Algebraic Expressions with Exponents* Practice: Numerical and Algebraic Expressions*
CE.6.6.c The student will simplify numerical expressions . . .	Numerical Expressions with Exponents Practice: Numerical and Algebraic Expressions
CE.6.6.c The student will simplify numerical expressions involving integers	Equivalent Expressions & the Distributive Property* Equivalent Expressions & Properties of Addition* Practice: Equivalent Expressions* Solutions of Equations*
MG.6.7.b The student will solve problems, including practical problems, involving circumference and area of a circle; and	Area and Circumference of a Circle
MG.6.7.c The student will solve problems . . . involving area and perimeter of triangles and rectangles	Concepts of Area and Perimeter

**This lesson is related to the aligned standard*

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
MG.6.7.c The student will solve problems, including practical problems, involving area . . . of triangles . . .	Area of Parallelograms, Quadrilaterals, and Polygons
MG.6.8.a The student will identify the components of the coordinate plane; and	Polygons in the Coordinate Plane*
MG.6.8.b The student will . . . graph ordered pairs in a coordinate plane	Polygons in the Coordinate Plane
MG.6.8.b The student will identify the coordinates of a point and graph ordered pairs in a coordinate plane	Graph Equivalent Ratios*
MG.6.9 The student will determine congruence of segments, angles, and polygons.	Properties of Translations and Reflections* Properties of Rotations*
PFA.6.12.a The student will represent a . . . relationship between two quantities, including those arising from practical situations	Analyze Two-Variable Relationships Practice: Analyze Two-Variable Relationships
PFA.6.12.a The student will represent a proportional relationship between two quantities, including those arising from practical situations	Solve Problems with Percent*
PFA.6.12.b The student will . . . find a missing value in a ratio table	Equivalent Ratios Practice: Equivalent Ratios Equivalent Ratio Tables Graph Equivalent Ratios
PFA.6.12.b The student will determine the unit rate . . .	Unit Rates Involving Ratios of Fractions, Part 1 Unit Rates Involving Ratios of Fractions, Part 2

**This lesson is related to the aligned standard*

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Practice: Unit Rates Involving Ratios of Fractions
PFA.6.12.b The student will determine the unit rate of a proportional relationship . . .	Understand Unit Rate Solve Problems with Ratios and Unit Rates Solve Problems with Measurement Conversions Understand Proportional Relationships Write Equations for Proportional Relationships Practice: Proportional Relationships
PFA.6.12.c The student will determine whether a proportional relationship exists between two quantities; and	Understand Proportional Relationships Practice: Proportional Relationships
PFA.6.12.d The student will make connections between and among representations of a . . . relationship between two quantities using . . . tables, and graphs	Analyze Two-Variable Relationships Practice: Analyze Two-Variable Relationships
PFA.6.12.d The student will make connections between and among representations of a proportional relationship between two quantities using . . . ratio tables, and graphs	Graph Equivalent Ratios
PFA.6.12.d The student will make connections between and among representations of a proportional relationship between two quantities using verbal descriptions, ratio tables, and graphs	Equivalent Ratios* Practice: Equivalent Ratios* Equivalent Ratio Tables* Representing Proportional Relationships*

**This lesson is related to the aligned standard*

Grade 6 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
PFA.6.13 The student will solve one-step linear equations in one variable, including practical problems that require the solution of a one-step linear equation in one variable.	Solutions of Equations* Write and Solve Addition Equations Write and Solve Multiplication Equations Practice: Write and Solve Equations
PFA.6.14.a The student will represent a practical situation with a linear inequality in one variable; and	Understand Inequalities Write and Solve Inequalities
PFA.6.14.b The student will solve one-step linear inequalities in one variable, involving addition or subtraction, and graph the solution on a number line	Understand Inequalities* Write and Solve Inequalities*

Grade 7

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.7.1.a The student will investigate and describe the concept of negative exponents for powers of ten	Properties of Integer Exponents
NS.7.1.b The student will compare and order numbers greater than zero written in scientific notation	Operations with Numbers Expressed in Scientific Notation*
NS.7.1.c The student will compare and order rational numbers	Order Positive and Negative Numbers Rational and Irrational Numbers* Approximating Irrational Numbers*
NS.7.1.d The student will determine square roots of perfect squares; and	Square Roots and Cube Roots Approximating Irrational Numbers*
NS.7.1.e The student will identify . . . absolute value of rational numbers	Understand Distance on the Number Line
NS.7.1.e The student will identify and describe absolute value of rational numbers	Understand Absolute Value Practice: Positive and Negative Numbers Understand Addition with Integers* Practice: Adding and Subtracting Integers* Add and Subtract Rationals* Practice: Add and Subtract Rationals*
CE.7.2 The student will solve . . . problems involving [addition and subtraction] with rational numbers.	Add and Subtract Rationals Practice: Add and Subtract Rationals Strategies to Add and Subtract Rationals

**This lesson is related to the aligned standard*

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Practice: Strategies to Add and Subtract Rationals
CE.7.2 The student will solve . . . problems involving [division] with [integers].	Divide Integers
CE.7.2 The student will solve . . . problems involving [multiplication] with [integers].	Multiply Integers
CE.7.2 The student will solve practical problems involving . . . [multiplication and division] with rational numbers.	Multiply and Divide Rationals Practice: Multiply and Divide Rationals
CE.7.2 The student will solve practical problems involving operations with rational numbers.	Understand Subtraction with Integers* Practice: Adding and Subtracting Integers* Strategies to Add and Subtract Integers* Practice: Strategies to Add and Subtract Integers* Practice: Multiply and Divide Integers* Solve Problems with Rational Numbers
CE.7.2 The student will solve practical problems involving [subtraction] with rational numbers.	Understand Distance on the Number Line
CE.7.3 The student will solve . . . multistep practical problems, using proportional reasoning.	Solve Percent Problems, Part 1 Practice: Solve Percent Problems Solve Percent Problems, Part 2 Solve Percent Problems, Part 3 Percent Change

**This lesson is related to the aligned standard*

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
CE.7.3 The student will solve . . . problems, using proportional reasoning.	Practice: Proportional Relationships
CE.7.3 The student will solve single-step and multistep practical problems, using proportional reasoning.	Scale Drawings*
MG.7.4.a The student will . . . determine the . . . surface area of rectangular prisms . . .	Surface Area of Composed Figures
MG.7.4.a The student will . . . determine the volume . . . of rectangular prisms . . .	Volume of Composed Figures
MG.7.4.a The student will describe and determine the volume and surface area of rectangular prisms and cylinders; and	Area of Composed Figures*
MG.7.4.b The student will solve problems, including practical problems, involving the . . . surface area of rectangular prisms . . .	Surface Area of Composed Figures
MG.7.4.b The student will solve problems, including practical problems, involving the volume . . . of rectangular prisms . . .	Volume of Composed Figures
MG.7.4.b The student will solve problems, including practical problems, involving the volume and surface area of rectangular prisms and cylinders	Area of Composed Figures*
MG.7.6.a The student will compare and contrast quadrilaterals based on their properties; and	Classify Two-Dimensional Figures*
MG.7.6.b The student will determine unknown side lengths or angle measures of quadrilaterals	Problem Solving with Angles*
MG.7.7 The student will apply translations and reflections of right triangles or rectangles in the coordinate plane.	Properties of Translations and Reflections Properties of Rotations*

**This lesson is related to the aligned standard*

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Properties of Dilations*
PS.7.8.a The student will determine the . . . experimental probabilities of an event; and	Experimental Probability
PS.7.8.a The student will determine the theoretical . . . probabilities of an event; and	Probability Models
PS.7.8.a The student will determine the theoretical and experimental probabilities of an event; and	Probability Concepts*
PS.7.8.b The student will investigate and describe the difference between the experimental probability and theoretical probability of an event	Probability Concepts* Experimental Probability* Probability Models*
PS.7.9.a The student . . . will represent data in a histogram	Histograms
PS.7.9.a The student, given data in a practical situation, will represent data in a histogram	Choosing Data Displays*
PS.7.9.b The student . . . will make observations and inferences about data represented in a histogram; and	Histograms
PFA.7.10.a The student will determine the slope, m, as rate of change in a proportional relationship between two quantities and write an equation in the form y = mx to represent the relationship	Write Equations for Proportional Relationships* Practice: Proportional Relationships* Linear Functions, Rate of Change and Initial Value
PFA.7.10.b The student will graph a line representing a proportional relationship between two quantities given the slope and an ordered pair, or given the equation in y = mx form where m represents the slope as rate of change	Understand Proportional Relationships* Practice: Proportional Relationships* Representing Proportional Relationships

**This lesson is related to the aligned standard*

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
PFA.7.10.c The student will determine the y-intercept, b, in an additive relationship between two quantities and write an equation in the form y = x + b to represent the relationship	Linear Functions, Rate of Change and Initial Value* Linear Equations and Slope*
PFA.7.10.d The student will graph a line representing an additive relationship between two quantities given the y-intercept and an ordered pair, or given the equation in the form y = x + b, where b represents the y-intercept; and	Representing Proportional Relationships*
PFA.7.10.e The student will make connections between and among representations of a proportional . . . relationship between two quantities using verbal descriptions, tables, equations, and graphs	Write Equations for Proportional Relationships Practice: Proportional Relationships
PFA.7.10.e The student will make connections between and among representations of a proportional or additive relationship between two quantities using verbal descriptions, tables, equations, and graphs	Understand Proportional Relationships*
PFA.7.11 The student will evaluate algebraic expressions for given replacement values of the variables.	Write and Evaluate Algebraic Expressions Algebraic Expressions with Exponents Practice: Numerical and Algebraic Expressions Equivalent Expressions & the Distributive Property* Equivalent Expressions & Properties of Addition*

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
	Practice: Equivalent Expressions* Solutions of Equations Write and Solve Addition Equations* Write and Solve Multiplication Equations* Practice: Write and Solve Equations* Understand Inequalities Write and Solve Inequalities
PFA.7.12 The student will solve two-step linear equations in one variable . . .	Solve Multi-Step Equations, Part 1 Solve Multi-Step Equations, Part 2
PFA.7.12 The student will solve two-step linear equations in one variable, including practical problems that require the solution of a two-step linear equation in one variable.	Equivalent Linear Expressions* Practice: Equivalent Linear Expressions* Reasons for Equivalent Linear Expressions* Understand Multi-Step Equations Write and Solve Multi-Step Equations Practice: Write and Solve Multi-Step Equations
PFA.7.13 The student will solve . . . two-step linear inequalities in one variable . . . involving addition . . . [and] multiplication, . . . and graph the solution on a number line.	Solve Inequalities

Grade 7 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
PFA.7.13 The student will solve . . . two-step linear inequalities in one variable, including practical problems, involving addition . . . [and] multiplication, . . . and graph the solution on a number line.	Understand Solutions of Inequalities Solve Problems with Inequalities

Grade 8

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
NS.8.1 The student will compare . . . real numbers.	Rational and Irrational Numbers
NS.8.1 The student will compare and order real numbers.	Approximating Irrational Numbers
NS.8.2 The student will describe the relationships between the subsets of the real number system.	Rational and Irrational Numbers*
NS.8.3.a The student will estimate and determine the two consecutive integers between which a square root lies; and	Approximating Irrational Numbers*
NS.8.3.b The student will determine both the positive and negative square roots of a given perfect square	Square Roots and Cube Roots
MG.8.5 The student will use the relationships among pairs of angles that are vertical angles, adjacent angles, supplementary angles, and complementary angles to determine the measure of unknown angles.	Problem Solving with Angles
MG.8.6.a The student will solve problems, including practical problems, involving volume . . . of cones . . .	Volume of Cylinders, Cones, and Spheres
MG.8.6.b The student will describe how changing one measured attribute of a rectangular prism affects the volume and surface area	Surface Area of Composed Figures* Volume of Composed Figures*
MG.8.7.a The student will given a polygon, apply transformations, to include . . . dilations, in the coordinate plane; and	Properties of Dilations
MG.8.7.a The student will given a polygon, apply transformations, to include translations, reflections, and dilations, in the coordinate plane; and	Properties of Translations and Reflections Properties of Rotations

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
MG.8.7.b The student will identify practical applications of transformations	Properties of Translations and Reflections* Properties of Rotations* Properties of Dilations*
MG.8.8 The student will construct a three-dimensional model, given the top or bottom, side, and front views.	Nets and Surface Area
MG.8.9.a The student will verify the Pythagorean Theorem; and	The Pythagorean Theorem
MG.8.9.b The student will apply the Pythagorean Theorem	The Pythagorean Theorem Applications of the Pythagorean Theorem
MG.8.10 The student will solve area and perimeter problems, including practical problems, involving composite plane figures.	Area of Composed Figures
PS.8.11.a The student will compare and contrast the probability of independent and dependent events; and	Probability Concepts* Probability Models*
PS.8.11.b The student will determine probabilities for independent and dependent events	Probability Concepts* Probability Models*
PS.8.12.a The student will represent numerical data in boxplots	Box Plots Choosing Data Displays*
PS.8.12.b The student will make observations and inferences about data represented in boxplots; and	Box Plots Choosing Data Displays*
PS.8.12.c The student will compare and analyze two data sets using boxplots	Box Plots* Choosing Data Displays*

**This lesson is related to the aligned standard*

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
PS.8.13.a The student will represent data in scatterplots	Scatter Plots
PS.8.13.b The student will make observations about data represented in scatterplots; and	Scatter Plots Linear Models*
PS.8.13.c The student will use a drawing to estimate the line of best fit for data represented in a scatterplot	Scatter Plots Linear Models
PFA.8.14.b The student will simplify algebraic expressions in one variable	Equivalent Expressions & the Distributive Property* Equivalent Expressions & Properties of Addition* Practice: Equivalent Expressions* Equivalent Linear Expressions Practice: Equivalent Linear Expressions Reasons for Equivalent Linear Expressions Solving Linear Equations Solving Linear Equations with Rational Coefficients
PFA.8.15.a The student will determine whether a given relation is a function; and	Concept of a Function
PFA.8.15.b The student will determine the domain and range of a function	Concept of a Function*
PFA.8.16.a The student will recognize and describe the graph of a linear function with a slope that is positive, negative, or zero	Using a Graph to Analyze a Functional Relationship

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
PFA.8.16.b The student will identify the slope and y-intercept of a linear function, given a table of values [or] a graph . . .	Linear Functions, Rate of Change and Initial Value
PFA.8.16.c The student will determine the independent and dependent variable, given a practical situation . . .	Analyze Two-Variable Relationships Practice: Analyze Two-Variable Relationships
PFA.8.16.c The student will determine the independent and dependent variable, given a practical situation modeled by a linear function	Concept of a Function* Using a Graph to Analyze a Functional Relationship*
PFA.8.16.d The student will graph a linear function given the equation in y = mx + b form; and	Linear Functions* Using a Graph to Analyze a Functional Relationship* Representing Proportional Relationships* Linear Equations and Slope* Systems of Linear Equations*
PFA.8.16.e The student will make connections between and among representations of a linear function using . . . equations, and graphs	Linear Equations and Slope
PFA.8.16.e The student will make connections between and among representations of a linear function using verbal descriptions, tables, equations, and graphs	Linear Functions, Rate of Change and Initial Value Properties of Functions* Using a Graph to Analyze a Functional Relationship Representing Proportional Relationships*

**This lesson is related to the aligned standard*

Grade 8 (continued)

Mathematics Standards of Learning for Virginia Public Schools	Aligned Lessons
PFA.8.17 The student will solve multistep linear equations in one variable with the variable on one or both sides of the equation, including practical problems that require the solution of a multistep linear equation in one variable.	Solving Linear Equations* Solving Linear Equations with Rational Coefficients*

Appendix F – Independent Research Summaries

i-Ready Receives High Ratings from NCII

i-Ready Receives High Ratings from NCII

i-Ready received high ratings in reading and mathematics from the National Center on Intensive Intervention (NCII) in all three categories that NCII reviews: Academic Screening, Academic Progress Monitoring, and Academic Intervention. NCII is a nationally recognized technical assistance center that is managed by the American Institutes for Research (AIR) that reviews available educational tools on the market. *i-Ready*'s high ratings on Screening, Progress Monitoring, and Intervention signify that *i-Ready* can be used to identify students who may be at risk of poor academic outcomes, monitor students' academic progress, and serve as an academic intervention program that addresses students' specific needs.

i-Ready's NCII Ratings

i-Ready was reviewed under three of NCII's Tools Charts: Academic Screening, Academic Progress Monitoring, and Academic Intervention.

1. The high ratings in **Academic Screening** signify that *i-Ready Diagnostic* meets NCII's rigorous technical standards and can be used to identify students at risk of poor academic outcomes, including those who may need intensive instruction as part of a response to intervention (RTI) or multi-tiered system of supports (MTSS) model. These ratings provide external evidence of *i-Ready Diagnostic*'s rigorous design and should give educators confidence that it is appropriate to use this assessment to identify which students are at risk and in need of intensive intervention.
2. The high ratings in **Academic Progress Monitoring** signify that *i-Ready Diagnostic* and Growth Monitoring, when used together, satisfied NCII's standards for technical rigor and can be used to monitor the academic progress of students. These ratings should give educators confidence that it is appropriate to use *i-Ready Diagnostic* and Growth Monitoring to monitor students' academic progress.
3. The high ratings in **Academic Intervention** signify that two studies on the impact of *i-Ready Personalized Instruction* on striving students meet NCII's rigorous study quality standards. These ratings on study quality, in conjunction with the positive effect sizes reported by the researchers, should give educators confidence that *i-Ready Personalized Instruction* is an appropriate intervention for striving students.

Together, these NCII ratings support the use of *i-Ready*'s system of assessment and instruction as a solution for serving all students with high-quality screening, progress monitoring, and instruction, including students who may be at academic risk and in need of intensive intervention.

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Summary of *i-Ready Diagnostic*'s NCII Ratings: Academic Screening

Below is a summary of the results of NCII's review of *i-Ready Diagnostic* for the Academic Screening Tools Chart. For the full review, see NCII's Academic Screening Tools Chart.

NCII's Rating Rubric

The highest possible rating for an assessment would be "convincing evidence" in every category.

- = Convincing evidence
- = Partially convincing evidence
- = Unconvincing evidence
- = Data unavailable, which means it was not included in the submission

Academic Screening Tools Chart:

An Overview of *i-Ready Diagnostic*'s Results

Grade	Classification Accuracy			Reliability	Validity	Sample Representativeness	Bias Analysis Conducted
	Fall	Winter	Spring				
i-Ready Diagnostic for Reading							
K	◒	●	●	●	◒	National with Cross-Validation	Yes
1	◒	●	●	●	◒		
2	●	●	●	●	◒		
3	●	●	●	●	●		
4	●	●	●	●	●		
5	●	●	●	●	●		
6	●	●	●	●	●		
7	●	●	●	●	●		
8	●	●	●	●	●		
i-Ready Diagnostic for Mathematics							
3	●	●	●	●	●	National with Cross-Validation	Yes
4	●	●	●	●	●		
5	●	●	●	●	●		
6	●	●	●	●	●		
7	●	●	●	●	●		
8	●	●	●	●	●		

To learn more about the reliability and validity for Grades K–2 Mathematics, please refer to the i-Ready Diagnostic *Technical Manual.*

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Summary of *i-Ready Diagnostic*'s NCII Ratings: Academic Progress Monitoring

Below is a summary of the results of NCII's review of *i-Ready Diagnostic* for the Academic Progress Monitoring Tools Chart. For the full review, see NCII's Academic Progress Monitoring Tools Chart.

NCII's Rating Rubric

The highest possible rating for an assessment would be "convincing evidence" in every category.

- ● = Convincing evidence
- ◒ = Partially convincing evidence
- ○ = Unconvincing evidence
- — = Data unavailable, which means it was not included in the submission

Academic Progress Monitoring Tools Chart:

An Overview of *i-Ready Diagnostic* and Growth Monitoring's Results

Grade	Reliability	Validity	Bias Analysis Conducted	Sensitivity		Alternate Forms	Decision Rules	
				Reliability of the Slope	Validity of the Slope		Setting and Revising Goals	Changing Instruction
i-Ready Diagnostic and Growth Monitoring for Reading								
K	●	●	Yes	—	—	●	—	—
1	●	●		—	—	●	—	—
2	●	●		—	—	●	—	—
3	●	●		—	—	●	—	—
4	●	●		—	—	●	—	—
5	●	●		—	—	●	—	—
6	●	●		—	—	●	—	—
7	●	●		—	—	●	—	—
8	●	●		—	—	●	—	—
i-Ready Diagnostic and Growth Monitoring for Mathematics								
3	●	●	Yes	—	—	●	—	—
4	●	●		—	—	●	—	—
5	●	●		—	—	●	—	—
6	●	●		—	—	●	—	—
7	●	●		—	—	●	—	—
8	●	●		—	—	●	—	—

To learn more about the reliability and validity for Grades K–2 Mathematics, please refer to the i-Ready Diagnostic *Technical Manual.*

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Summary of *i-Ready Personalized Instruction*'s NCII Ratings: Academic Intervention

Below is a summary of the results of NCII's review of *i-Ready Personalized Instruction* for the Academic Intervention Tools Chart. For the full review, see NCII's Academic Intervention Tools Chart.

NCII's Rating Rubric

The highest possible rating for an assessment would be "convincing evidence" in every category.

- ● = Convincing evidence
- ◒ = Partially convincing evidence
- ○ = Unconvincing evidence
- — = Data unavailable, which means it was not included in the submission

Academic Intervention Tools Chart:

An Overview of *i-Ready Personalized Instruction*'s Results

	Participants	Study Design	Fidelity of Intervention	Targeted Measures	Broader Measures
i-Ready Personalized Instruction for Reading	●	◒	◒	●	—
i-Ready Personalized Instruction for Math	●	◒	◒	●	—

To learn more about the efficacy of *i-Ready Personalized Instruction* for Grades K–8, please visit CurriculumAssociates.com/iReadyResearch.

About NCII

NCII's mission is to build the capacity of education agencies and stakeholders to support the implementation of intensive interventions in literacy, mathematics, and behavior for students with severe and persistent learning and/or behavioral needs. These interventions often take place in the context of an MTSS, including an RTI model or special education services. Funded by the US Department of Education's Office of Special Education Programs and administered by AIR, NCII reviews assessments and educational programs that can serve a role in RTI or MTSS processes and publishes Tools Charts that rate the technical rigor of assessment tools and studies on intervention programs.

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i-Ready Improves Outcomes for Striving Learners: Evidence to Support Addressing Unfinished Learning

ESSA Level 2
Striving Learners

i-Ready

i-Ready Improves Outcomes for Striving Learners

Evidence to Support Addressing Unfinished Learning

Curriculum Associates Research Brief | June 2021

i-Ready Personalized Instruction Improves Striving Learners' Reading and Mathematics Achievement

Study Overview

The Human Resources Research Organization (HumRRO) and Century Analytics conducted a research study to examine the impact of *i-Ready Personalized Instruction* ("*i-Ready*") on reading and mathematics achievement for striving learners (i.e., students who placed Two or More Grade Levels Below in the fall). Using a quasi-experimental design (QED) study and data from the 2018–2019 school year, HumRRO and Century Analytics demonstrated that striving learners who used *i-Ready* as recommended performed better than striving learners who did not use *i-Ready*. In addition, the research shows that Black and Latino students who used *i-Ready* as recommended experienced significantly greater gains in student achievement compared to Black and Latino students who did not use *i-Ready*.

The design of this research study meets the Every Student Succeeds Act (ESSA) Level 2 criteria for Moderate Evidence. The results from this study demonstrate that *i-Ready* instruction is effective in improving striving learners' reading and mathematics achievement, which provides evidence that *i-Ready* can be used as effective instruction with students who have unfinished learning.

Introduction

i-Ready Personalized Instruction is designed to help educators accelerate growth and grade-level learning for all students. Numerous studies conducted by independent researchers, third-party research firms, and Curriculum Associates' own Research team have shown that across all students in Grades K–8, *i-Ready* helps students experience greater learning gains in reading and mathematics. To strengthen the research evidence demonstrating *i-Ready*'s effectiveness for all students, Curriculum Associates contracted with HumRRO and Century Analytics to focus on how *i-Ready* serves striving learners and students from traditionally disadvantaged backgrounds.

This study examined the impact of *i-Ready* on reading and mathematics achievement for striving learners in elementary Grades 2–5 using data from the 2018–2019 school year, with additional analyses examining whether *i-Ready* had a differential impact on Black and Latino students. Striving learners were defined as students who placed Two or More Grade Levels Below their enrolled grade on the fall *i-Ready Diagnostic*. Students who are Two or More Grade Levels Below are not yet prepared for grade-level content and are considered to have unfinished learning.

HumRRO and Century Analytics designed this study to meet the required rigor of the What Works Clearinghouse (WWC) standards to achieve a rating of Meets WWC Group Design Standards with Reservations and to meet guidelines for a Level 2 (or Moderate) rating for the ESSA guidance for evidence-based research. The study uses a QED, establishes baseline equivalence between *i-Ready* students and the comparison group, includes baseline achievement as a covariate, and uses a sampling design that mitigates the effects of any confounding factors.

The results from this study provide evidence that *i-Ready* can be used as effective, supplemental instruction to support students who have unfinished grade-level learning.

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Research Questions

HumRRO and Century Analytics evaluated the following three research questions for this study:

1. What is the impact of *i-Ready Personalized Instruction* on student achievement for striving learners compared to striving learners who do not use *i-Ready*?
2. Do striving learners who are Black experience similar impacts on achievement when using *i-Ready* compared to striving learners overall?
3. Do striving learners who are Latino experience similar impacts on achievement when using *i-Ready* compared to striving learners overall?

Methodology and Sample Description

HumRRO and Century Analytics created a matched treatment and comparison sample of students that met WWC standards of baseline equivalence using propensity-score–matching techniques. Baseline equivalence indicates that the *i-Ready* ("treatment") and comparison group students are similar across meaningful characteristics at the start of a study or use of a program.

HumRRO and Century Analytics identified treatment and comparison students in similar schools based on the following characteristics: percentage of historically marginalized students, percentage of students eligible for free and reduced-price lunch, and grade level. In this analysis, historically marginalized students included students who identified as Black, Asian or Pacific Islander, American Indian or Alaska Native, and two or more races. Students in the treatment and comparison groups were then matched according to their placement scores in the domains of each subject. The final analytic sample consisted of 122,548 students in the reading analysis and 103,350 students in the mathematics analysis. Across all schools included in the analysis, the average percentages of students receiving free and reduced-price lunch were 53% (reading analysis) and 52% (mathematics analysis), and the average percentages of historically marginalized students were 51% (reading analysis) and 49% (mathematics analysis). See Table 1 for student sample size by subject and grade level.

To be included in the **treatment group**, students must:	To be included in the **comparison group**, students must:
• **Have used *i-Ready Personalized Instruction*** for an average of at least 30 minutes a week for at least 18 weeks • Have placed Two Grade Levels Below their enrolled grade on the fall *i-Ready Diagnostic* of the 2018–2019 school year • Have a valid, non-rushed *i-Ready Diagnostic* score for the fall and spring of the 2018–2019 school year	• **Have not used *i-Ready Personalized Instruction*** during the 2018–2019 school year • Have placed Two Grade Levels Below their enrolled grade on the fall *i-Ready Diagnostic* of the 2018–2019 school year • Have a valid, non-rushed *i-Ready Diagnostic* score for the fall and spring of the 2018–2019 school year

Learn more about *i-Ready Personalized Instruction* and the *i-Ready Diagnostic* on page 10 of this research brief.

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Table 1: Overall Student Sample by Subject and Grade Level

	Grade 2	Grade 3	Grade 4	Grade 5	All Grades
Reading					
i-Ready Students	11,464	14,965	12,397	22,448	**61,274**
Comparison Group	11,464	14,965	12,397	22,448	**61,274**
Total Students	**22,928**	**29,930**	**24,794**	**44,896**	**122,548**
Mathematics					
i-Ready Students	11,673	14,679	12,757	12,566	**51,675**
Comparison Group	11,673	14,679	12,757	12,566	**51,675**
Total Students	**23,346**	**29,358**	**25,514**	**25,132**	**103,350**

Analysis

HumRRO and Century Analytics used hierarchical linear modeling (HLM) to estimate the impact of *i-Ready* on student achievement. HLM allows for additional school effects to be considered in the statistical model compared to a simple regression. In this statistical model, HumRRO and Century Analytics evaluated the impact of *i-Ready* on student achievement while controlling for the student's fall Diagnostic placement, school urbanicity, school percentage of students eligible for free and reduced-price lunch, school percentage of students of historically marginalized races, and school grade-level enrollment.

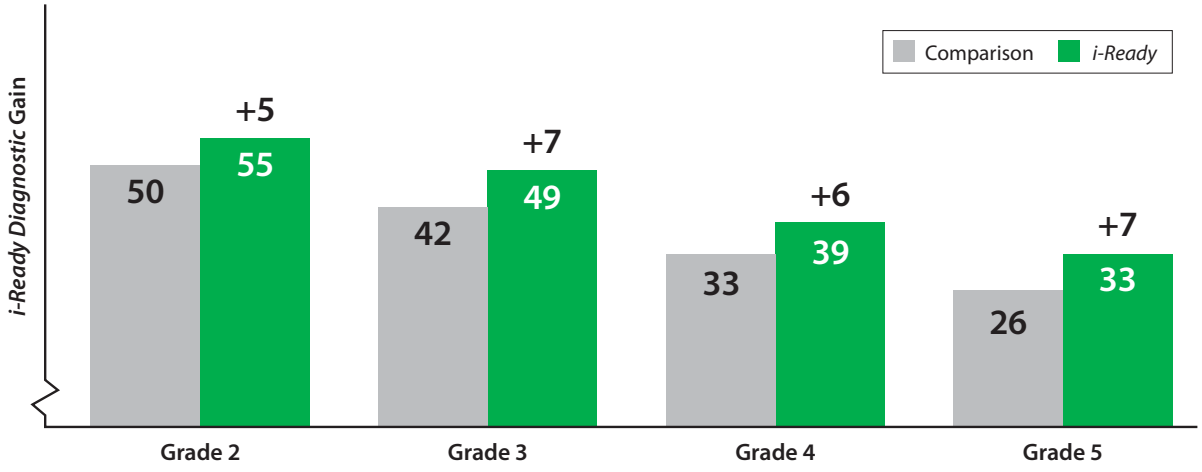
Additional exploratory analyses using these models analyzed whether Black and Latino striving learners experienced the same benefits from using *i-Ready*.

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Results

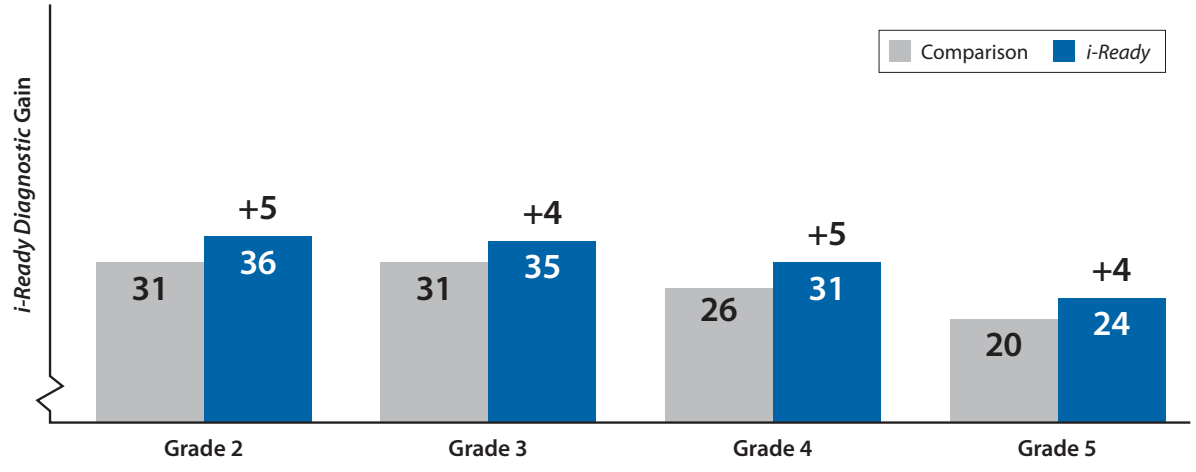
The researchers found that striving learners in Grades 2–5 using *i-Ready* scored statistically significantly higher on their spring Diagnostic compared to their peers who did not use *i-Ready* in reading or mathematics. See Graph 1 and Graph 2.

Graph 1: Impact of *i-Ready Personalized Instruction* in Reading on *i-Ready Diagnostic* Scores



Note: View Appendix Table 3 for detailed reading results.

Graph 2: Impact of *i-Ready Personalized Instruction* in Mathematics on *i-Ready Diagnostic* Scores



Note: View Appendix Table 4 for detailed mathematics results.

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What Is an Effect Size?

How to Interpret Effect Sizes

An effect size is a quantitative measure of the magnitude of an experimental effect. In education research, effect size usually refers to the magnitude of the "treatment" or "intervention" program or practice on student or teacher outcomes.

Effect sizes range from 0 to 1 and are often categorized into "small," "medium," and "large" effects where the larger the effect size, the stronger the impact of the treatment or intervention. Research shows that effect sizes in experimental studies of typical education interventions range from .03 to .17 and suggests that an effect size of less than .05 can be considered small, an effect size of .05 to .20 can be considered medium, and an effect size greater than .20 can be considered large (Kraft, 2019). Based on this interpretation, the effect size for *i-Ready* in this particular study ranges from medium to large depending on the grade level and subject.

Translating Effect Sizes

In order to make the effect sizes more educationally meaningful, the subject and grade-level effect sizes were translated into the number of weeks of instruction as well as an improvement index. The number of weeks of instruction represents the number of additional weeks of instruction that *i-Ready* students gained over the comparison group based on the magnitude of the difference between the *i-Ready* students' score gains and the comparison group students' score gains. For example, an effect size of .12 for Grade 2 students in reading translates into five weeks of additional instruction or growth that a student using *i-Ready* would gain over a comparison group student. Note that the average amount of growth per grade and subject vary, so the same effect size can translate into a different number of weeks of instruction based on the subject and grade level.

To measure the strength of using *i-Ready Personalized Instruction* on the overall study sample, effect sizes were calculated. An effect size represents the magnitude of the difference in scores. In this case, the effect size represents the extent of the difference between the fall-to-spring gains of an average student in the *i-Ready* treatment group and an average student in the comparison group. The study authors found the effect sizes ranged from .12 to .14 in reading and from .13 to .22 in mathematics. See Table 2 below and Appendix Tables 3 and 4 for more details.

Table 2: Results for All Striving Learners for Reading and Mathematics in Grades 2–5

	Reading *i-Ready* versus Comparison Group Students		Mathematics *i-Ready* versus Comparison Group Students	
Grade	**Effect Size**	**# Weeks of Instruction**	**Effect Size**	**# Weeks of Instruction**
2	.12	5	.22	6
3	.14	7	.18	6
4	.12	8	.21	8
5	.12	9	.13	7

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In addition, the researchers analyzed the data for students who were Black and Latino. This sub-analysis found that striving learners who are Black and Latino experienced the same positive impacts of *i-Ready*, on reading and mathematics achievement as striving learners overall. Furthermore, striving learners who are Black and used *i-Ready* performed significantly better than their Black peers who did not use *i-Ready*, and striving learners who are Latino who used *i-Ready* performed significantly better than their Latino peers who did not use *i-Ready*.

Conclusion

Findings from these analyses provide further evidence that *i-Ready* positively impacts striving learners in reading and mathematics, including students who are Black and Latino. Students using *i-Ready* who placed Two Grade Levels Below their enrolled grade experienced statistically significantly greater gains than students who did not use *i-Ready*. Results from this research provide evidence that students with unfinished learning who use *i-Ready* outperform their peers with unfinished learning who do not use *i-Ready*.

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Appendix : Impact Analysis Results

Table 3: Results for All Striving Learners for Reading in Grades 2–5

		Schools	Students	Fall Diagnostic Mean	Spring Diagnostic Mean	Adjusted Mean Difference	*p*-value	Effect Size	# Weeks of Instruction
2	*i-Ready* Students	1,281	11,464	395	450	5	<.0001	.12	5
	Comparison Group	1,253	11,464	395	445				
3	*i-Ready* Students	1,443	14,965	434	482	6	<.0001	.14	7
	Comparison Group	1,404	14,965	434	476				
4	*i-Ready* Students	1,558	12,397	456	496	5	<.0001	.12	8
	Comparison Group	1,502	12,397	457	490				
5	*i-Ready* Students	1,716	22,448	499	532	6	<.0001	.12	9
	Comparison Group	1,682	22,448	499	526				

Table 4: Results for All Striving Learners for Mathematics in Grades 2–5

		Schools	Students	Fall Diagnostic Mean	Spring Diagnostic Mean	Adjusted Mean Difference	*p*-value	Effect Size	# Weeks of Instruction
2	*i-Ready* Students	1,309	9,114	368	405	5	<.0001	.22	6
	Comparison Group	1,283	9,121	368	400				
3	*i-Ready* Students	1,314	9,606	388	424	4	<.0001	.18	6
	Comparison Group	1,295	9,598	388	419				
4	*i-Ready* Students	1,427	10,068	408	439	6	<.0001	.21	8
	Comparison Group	1,351	10,031	408	434				
5	*i-Ready* Students	1,447	9,956	422	447	4	<.0001	.13	7
	Comparison Group	1,372	9,969	423	443				

Note: Means and adjusted mean differences on this page have been rounded to the nearest whole number.

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Reference

Kraft, M. (2019). Interpreting effect sizes of education interventions. *EdWorkingPaper No. 19-10*. doi: 10.26300/8pjp-2z74.

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Program Overview

i-Ready Personalized Instruction is an evidence-based program grounded in research for students in Grades K–8 with an individualized plan for instruction based on each student's performance on the online, adaptive *i-Ready Diagnostic*. Once students complete the Diagnostic, *i-Ready* builds a unique lesson plan with a differentiated starting point for every learner based on their overall and domain-level placement. *i-Ready* allows teachers to add lessons and/or adjust the lesson sequence provided to individuals or groups of students. *i-Ready* is aligned to college- and career-ready standards and embeds multimedia instruction and progress monitoring into every online lesson. Lessons provide explicit instruction and extensive practice, offer supportive feedback, and build conceptual understanding for learners of all levels. To learn more about the research base behind *i-Ready*, visit CurriculumAssociates.com/Research.

Curriculum Associates recommends that all students using *i-Ready* maintain an average of 30–49 minutes of Lesson Time-on-Task per subject per week with at least 70% of lessons passed for the year. In addition, Curriculum Associates recommends administering the Diagnostic three times per year (i.e., beginning, middle, and end) with 12–18 weeks between each administration.

Outcome Measure

The Diagnostic is a computer-adaptive assessment that provides valid and reliable test scores for students in Grades K–12. The Diagnostic starts each student at a difficulty level based on an educated guess that is derived from their chronological grade level. As students answer questions correctly or incorrectly, the test adjusts up or down, with questions of varying difficulty, until the assessment reaches the level of difficulty that is "just right" for each student. The Diagnostic is usually administered at three time points during the school year: typically during fall, winter, and spring. Multiple studies have been conducted to support the reliability and validity of the Diagnostic for Reading and for Mathematics as well as their consistency with state content standards used across the United States. The Diagnostic received high ratings from the National Center on Intensive Intervention for use as an Academic Screening and Progress Monitoring tool for both Reading and Mathematics. To learn more about the Diagnostic, visit CurriculumAssociates.com/Diagnostic.

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Built to address the rigor of the new standards, *i-Ready* helps students make real gains. *i-Ready* collects a broad spectrum of rich data on student abilities that identifies areas where a student needs support, measures growth across a student's career, supports teacher-led differentiated instruction, and provides a personalized instructional path within a single online solution.

To learn more about evidence on the impact of *i-Ready*, please visit CurriculumAssociates.com/Research.



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Curriculum Associates' *i-Ready* Receives Positive Review in The Twentieth Mental Measurements Yearbook Published by the Buros Center for Testing

Back to Press Releases

Curriculum Associates' i-Ready® Receives Positive Review in The Twentieth Mental Measurements Yearbook Published by the Buros Center for Testing

Independent, third-party review commends online reading and mathematics program's design, execution, and test items

North Billerica, MA, February 28, 2017

Curriculum Associates' *i-Ready*® recently received a positive review in *The Twentieth Mental Measurements Yearbook* (MMY) published by the Buros Center for Testing, an independent, nonprofit organization with a mission to improve the science and practice of testing and assessment. According to the MMY review, "The *i-Ready* K–12 Diagnostic and K–8 Instruction is well designed and executed. The heart of the program—the pool of test items—is superb."

The Buros Center for Testing shares its expertise in assessment-related endeavors by providing critical appraisals of tests and descriptive information, offering psychometric consultation services, and developing deeper understanding of testing and assessment practices. Housed within the University of Nebraska-Lincoln, the Buros Center is recognized as the world's premier test review center, as well as a provider of outreach efforts related to improving testing, assessment, and measurement practices through consultation and education, with special emphases in psychology and education. The cornerstone of its publishing activities is the MMY series, which is published every three years and includes timely, consumer-oriented test reviews that provide evaluative information to promote and encourage informed test selection.

To be reviewed in the MMY a test must be commercially available, be published in the English language, and be new, revised, or widely used since it last appeared in the MMY series. Beginning in *The Fourteenth Mental Measurements Yearbook*, tests also must include sufficient documentation supporting their technical quality to meet criteria for review.

"This positive, independent review of *i-Ready* further validates the power of our program," said Rob Waldron, CEO of Curriculum Associates. "With more than 4.3 million student users throughout the country, *i-Ready* helps educators to identify students' strengths and areas in need of improvement, offer individualized instruction, and monitor progress to improve learning outcomes."

In addition to the positive review by the Buros Center for Testing, Curriculum Associates' *i-Ready Diagnostic* for reading and mathematics received near-perfect ratings in the Academic Progress Monitoring Tool category by the National Center on Intensive Intervention (NCII) at the American Institutes for Research in 2016. NCII is a nationally recognized organization designed to support data-based individualization in reading, mathematics, and behavior for students with severe and persistent learning and/or behavioral needs.

To learn more about the Buros Center for Testing, visit Buros.org. To view the *i-Ready Diagnostic* ratings on the NCII website, visit IntensiveIntervention.org/Chart/Progress-Monitoring.

About *i-Ready*

Built to address the rigor of the new standards, *i-Ready* helps students make real gains. *i-Ready* collects a broad spectrum of rich data on student abilities that identifies areas where a student is struggling, measures growth across a student's career, supports teacher-led differentiated instruction, and provides a personalized instructional path within a single online solution.

i-Ready is currently being used this school year by approximately 10 percent of all K–8 students nationwide, serving more than 4.3 million students across all 50 states. Additionally, more than 1 million students use the program every school day.

To learn more about *i-Ready*, click here.

About Curriculum Associates

Founded in 1969, Curriculum Associates, LLC designs research-based print and online instructional materials, screens and assessments, and data management tools. The company's products and outstanding customer service provide teachers and administrators with the resources necessary for teaching diverse student populations and fostering learning for all students.

###

Media contact: press@cainc.com

Back to Press Releases

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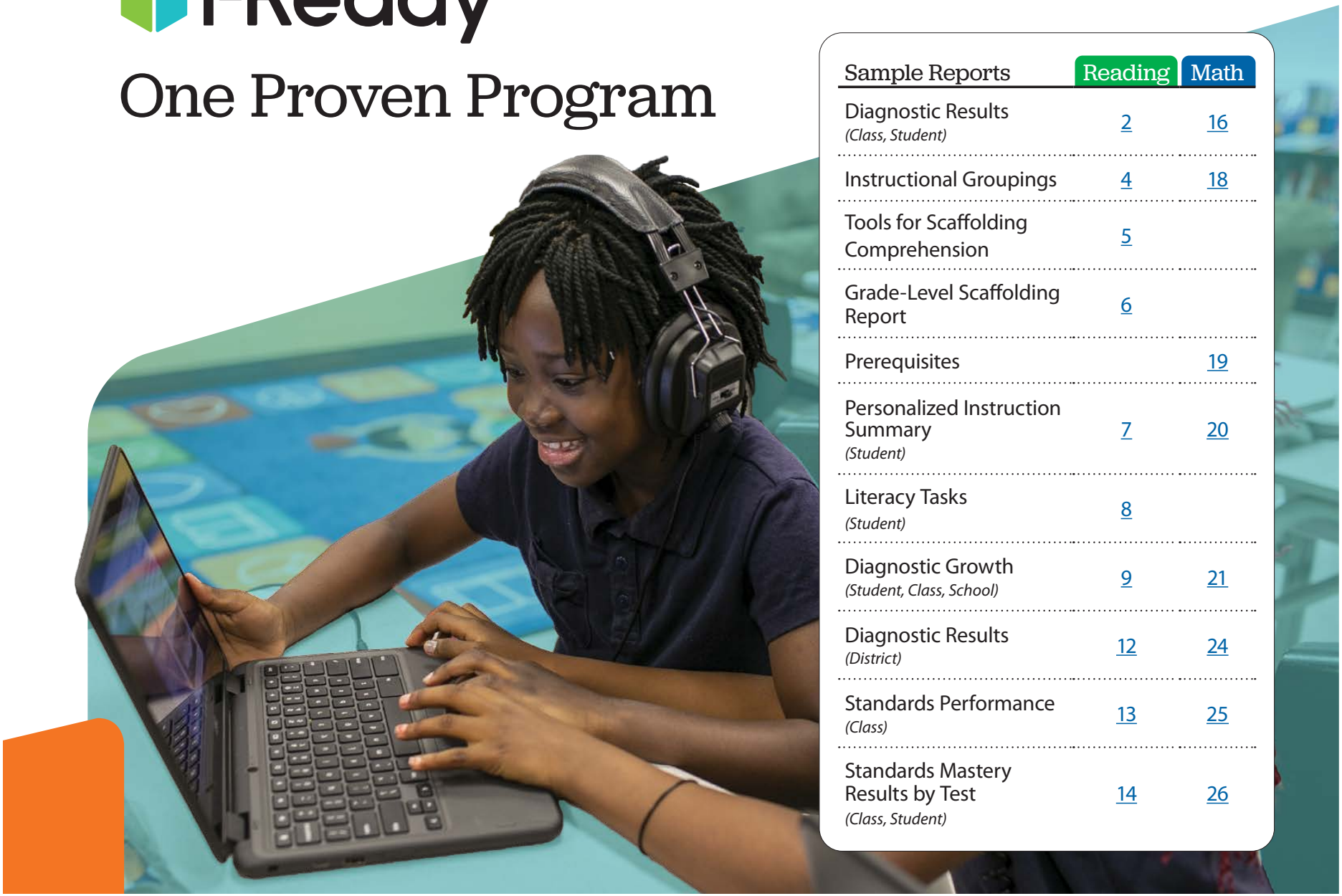
Hi there! How can I help?

Feedback?

Appendix G – *i-Ready* Reports Book

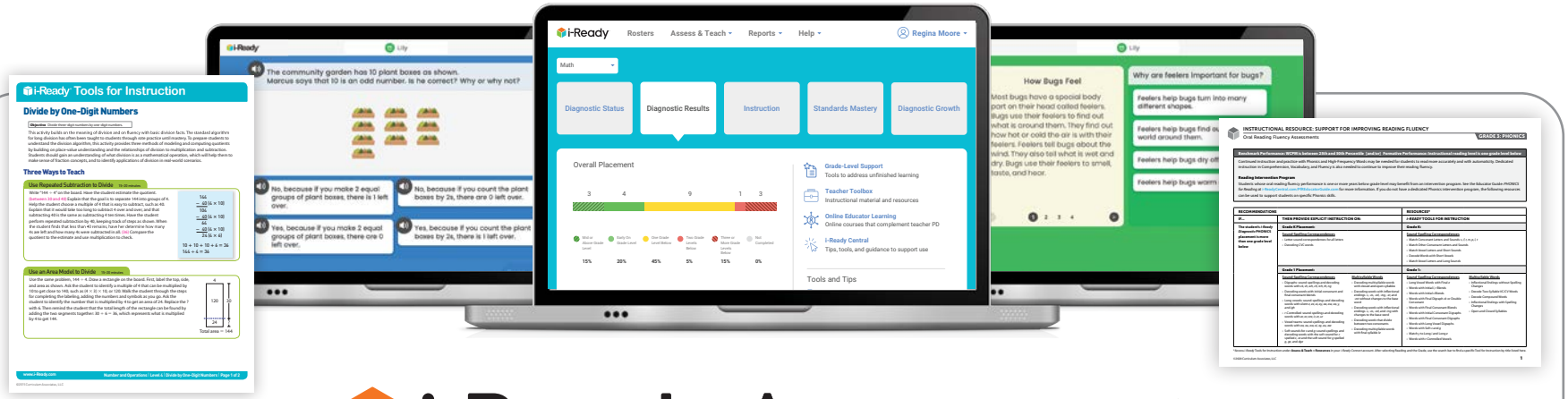
i-Ready

One Proven Program



Sample Reports	Reading	Math
Diagnostic Results *(Class, Student)*	2	16
Instructional Groupings	4	18
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Grade-Level Scaffolding Report	6	
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Assessment for the Purpose of Instruction



i-Ready Assessment

Designed to give a full picture of student performance and growth in Reading and Mathematics by giving deep insights into student needs to connect instructional resources to classroom action

- ✓ Diagnostic for Mathematics in Spanish (K–12)
- ✓ Assessment of Spanish Reading (K–6)

✓ Adaptive Diagnostic (K–12)

- Tools for Instruction (K–8)
- Tools for Scaffolding Comprehension (Reading, 3–8)

✓ Grade-Level Standards Mastery (2–8)

- Differentiated Instructional Support Resources (2–8)

- ✓ Growth Monitoring (K–8)
- ✓ Literacy Assessments (K–6)



i-Ready Learning

Motivating, personalized Reading and Mathematics instruction that addresses unfinished learning and provides engaging, rigorous resources for grade-level learning

- ✓ Personalized Instruction (K–8)
- ✓ Learning Games (Mathematics, K–8)
- ✓ Teacher Toolbox (K–8)
- ✓ Tools for Instruction (K–8)
- ✓ Tools for Scaffolding Comprehension (Reading, 3–8)
- ✓ *i-Ready Classroom Mathematics* (K–8)
- ✓ *Magnetic Reading Foundations* (K–2)
- ✓ *Magnetic Reading* (3–5)
- ✓ *PHONICS for Reading* (3–12)

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Reading Diagnostic Results for a Class

Diagnostic Results

Subject: Reading

Class/Report Group: Grade 5, Section 1

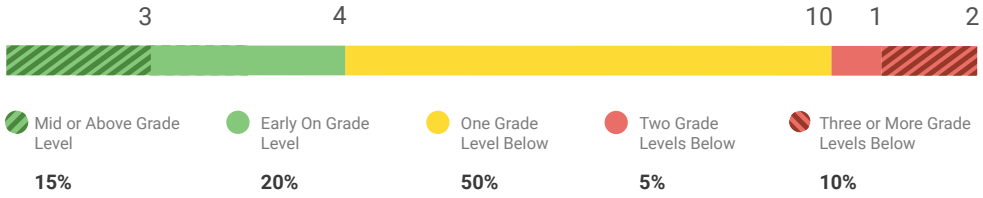
Diagnostic: Diagnostic 1

08/31/22–09/30/22

Gives a comprehensive picture of class instructional needs, including criterion-referenced grade-level placements, national norms, and growth measures, based on data from each Diagnostic

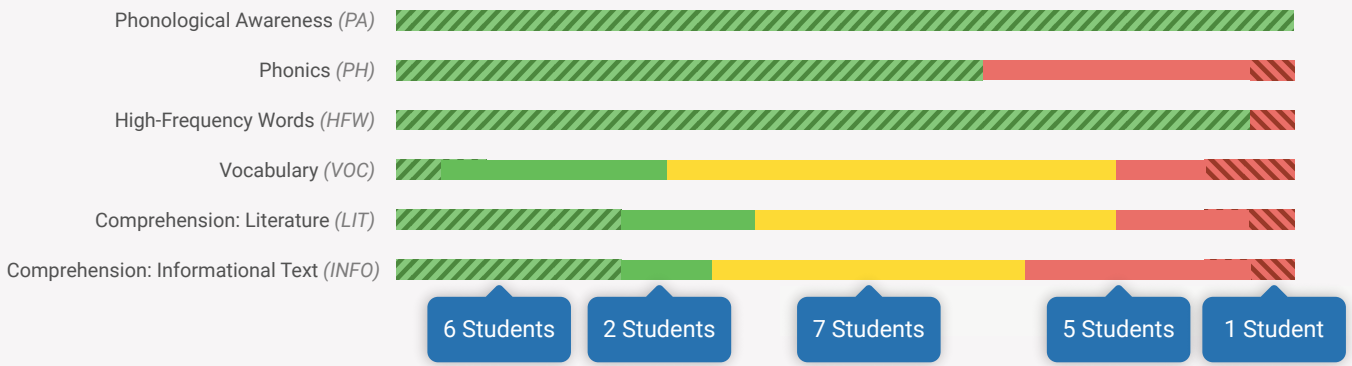
3-Level Placement | 5-Level Placement (Enhanced)

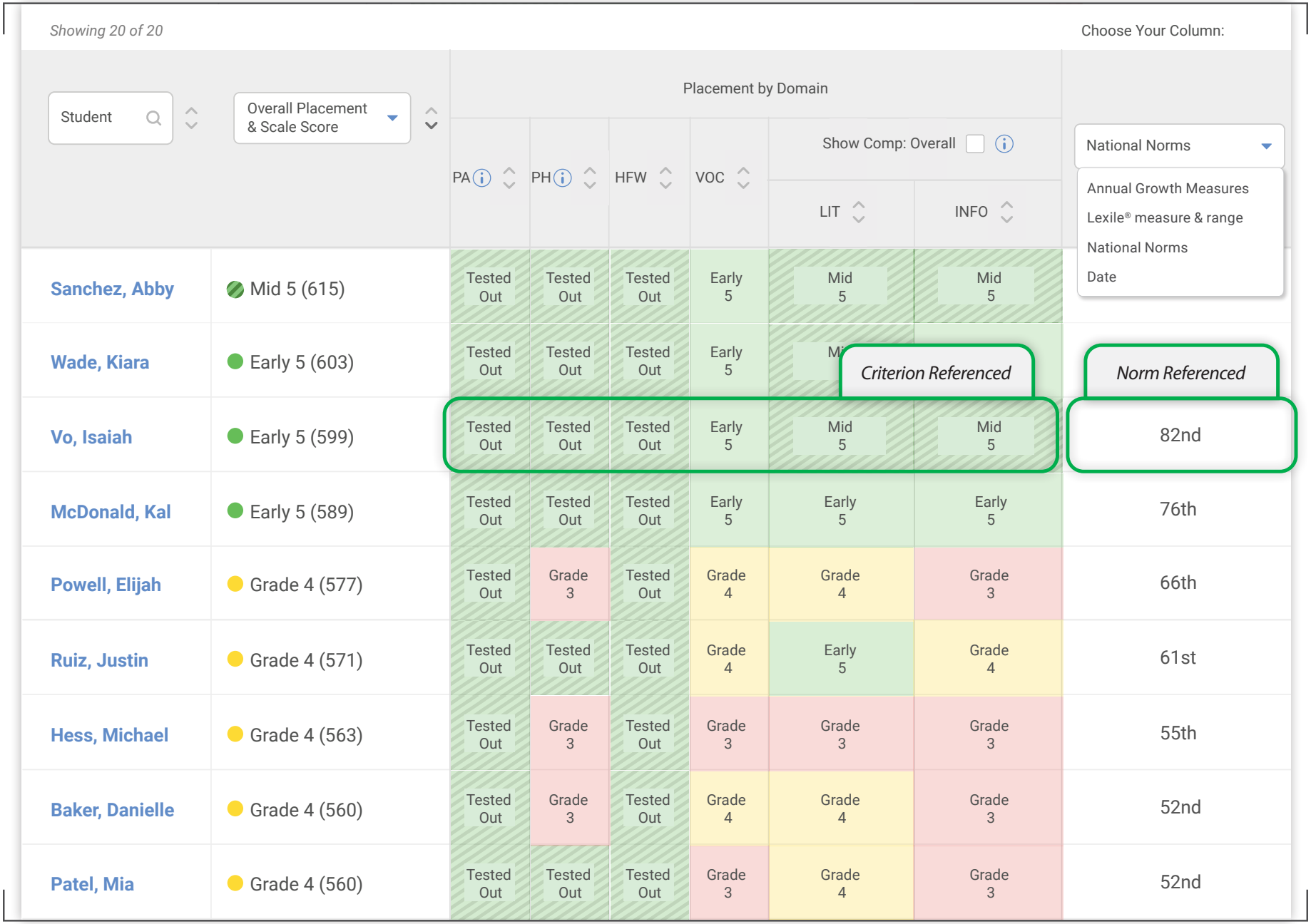
Overall Placement



The Mapping between 5-Level and 3-Level Placements

Placement by Domain*





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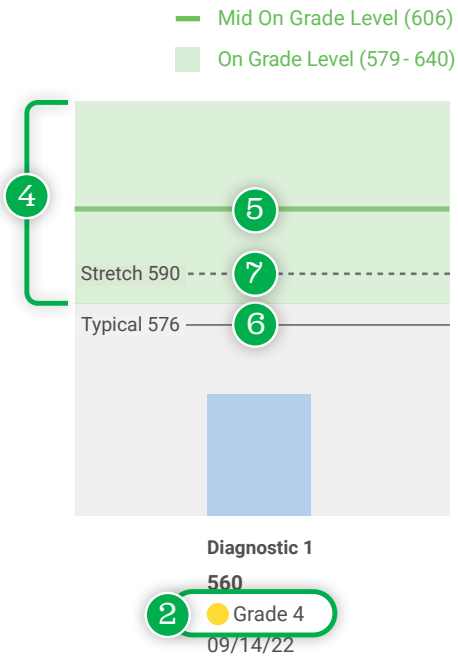
Reading Diagnostic Results for a Student

Diagnostic Results ▾ **Danielle Baker** ▾ **Grade 5** (1)

Subject: Reading ▾ Diagnostic: Diagnostic 1 (09/14/22) ▾ Key

Uses criterion-referenced grade-level placements to give teachers insight into the instructional strengths, areas of need, and annual growth expectations for each student

1. *Student's Grade*
2. *Current Grade-Level Placement*
3. *Current Normative Percentile*
4. *Grade-Level Performance Range*
5. *Grade-Level Proficiency*
6. *Typical: Average Growth for Students at the Same Starting Point*
7. *Stretch: Ambitious Growth for Students That Puts Students on a Path toward Proficiency*



This Diagnostic is considered the baseline and is used to establish growth measures for this student.

Overall — Grade 4 (560) Standard Error +/- 12

Domain	Placement	Can Dos & Next Steps
Phonological Awareness*	Tested Out	↓
Phonics*	Grade 3	↓
High-Frequency Words*	Tested Out	↓
Vocabulary	Grade 4	↓
Comprehension: Literature	Grade 4	↓
Comprehension: Informational Text	Grade 3	↓

Show Comprehension: Overall ☐ *Foundational Domains

National Norm Performance and Lexile® Framework for Reading Measure

(3) **National Norm**
52nd Percentile

Lexile® Reading Measure:
830L

Lexile Range:
730L–880L

Understanding Lexile Reading Measures

The Lexile® Find a Book tool enables you to search for books by grade, interest, and Lexile measure. You can view a book's most challenging words and build a customized reading list. Search for books and see additional Lexile tools now at Hub.Lexile.com.

How to Use the Lexile Find a Book Tool

Placement by Domain

Results in Phonics indicate that Danielle has difficulty decoding words accurately. Vocabulary is another cause for concern. This score indicates that Danielle has areas of need in grade-level word knowledge. Targeting Phonics and Vocabulary instruction is the best way to support this student's growth as a reader. Taken together, this information places Danielle in Instructional Grouping 1.

Phonological Awareness	Phonics	High-Frequency Words	Vocabulary	Comprehension: Literature	Comprehension: Informational Text
Tested Out	Grade 3 514	Tested Out	Grade 4 561	Grade 4 547	Grade 3 519

Developmental Analysis

This domain addresses Danielle's understanding of informational text. Results indicate that Danielle would likely benefit from instruction in Grade 3 informational skills and strategies such as analyzing cause-and-effect relationships and determining main idea. Teach a variety of informational genres, including biographies, autobiographies, and newspaper or magazine articles.

Can Do

Danielle is developing proficiency with below-grade level informational texts in skills such as:

- Demonstrating understanding of key ideas and details
- Using text features to locate information
- Identifying reasons that support an author's point
- Retelling the most important ideas
- Comparing and contrasting information between two texts

Standards

Next Steps & Resources for Instruction

– Extend understanding of cause and effect.

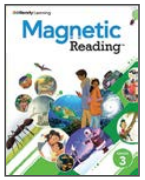
Extend understanding of cause and effect.

- Define effect as something that happens. Define cause as someth
- Read aloud a Grade 3 informational book and model the thought p effect relationships.
- Say, "When I read, I think about things that happen and why
- Model asking and answering questions such as, "What happ
- Then have Danielle read an informational text in a small gro questions and to look for details in the text to find answers.

Tools for Instruction

Identify Cause and Effect

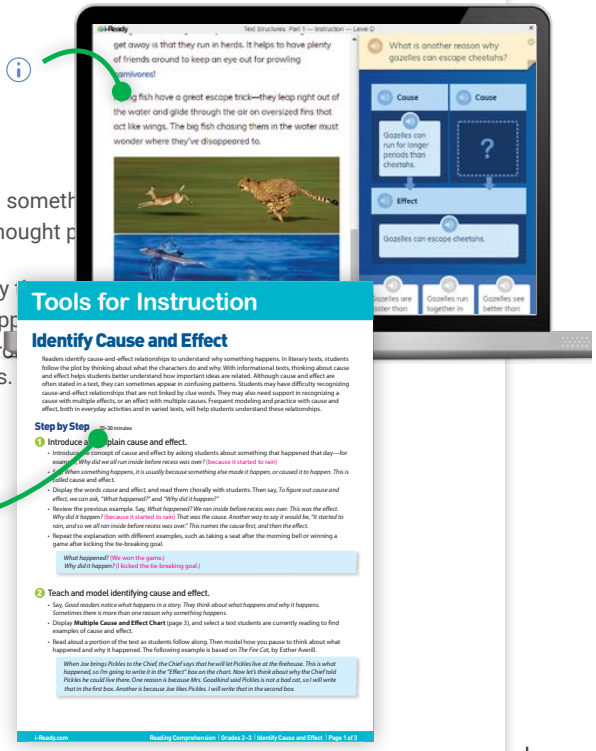
Additional Resources



Magnetic Reading

Learn More

- **Grade 3**
  Lesson 7: Group Survival
  Lesson 13: Travel Before and After Trains



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Instructional Groupings

Subject: Reading | Class/Report Group: Grade 5, Section 1 | Diagnostic: Diagnostic Window 1 (08/31/22–09/30/22) | Grade: Grade 5

Groups students with similar instructional needs and, for each group, provides the teacher with detailed instructional priorities and classroom resources to support differentiated instruction

View All Groupings

Grouping 1 — *7 Students*

Grouping 2 — *0 Students*

Grouping 3 — *7 Students*

Grouping — *0 Students*

6 Students

Students

Showing 7 of 7

Student	Scale Score	Overall Placement	PA	PH	HFW	VOC	LIT	INFO
Baker, Danielle	560	Grade 4	Tested Out	Grade 3	Tested Out	Grade 4	Grade 4	Grade 3
Choi, Isabelle	568	Grade 4	Tested Out	Grade 3	Tested Out	Grade 4	Grade 4	Grade 4
Malone, Carla	522	Grade 3	Tested Out	Grade 3	Grade 2	Grade 3	Grade 3	Grade 3
Singh, Brian	577	Grade 4	Tested Out	Grade 3	Max Score	Grade 4	Grade 4	Grade 4

– Hide Grouping Description

Students in this Grouping are below grade level in Phonics and have a limited vocabulary.

Instructional Priorities

Phonics

Students in this grouping are experiencing difficulty reading words accurately. In order to read for meaning, these students will need to become efficient decoders, and explicit Phonics instruction should be the immediate priority for their small group work. Also provide instruction and practice to build automatic word recognition in connected texts. Keep in mind that the end goal of reading is comprehension, and continue to work on comprehension as you target Phonics.

Vocabulary

These students are likely to have difficulty not only with word meanings, but also with the background knowledge required by grade-level texts. Thus, another focus for small group instruction should be meanings of individual words, as well as word relationships, word parts, and other word-learning strategies. Also integrate instruction of Vocabulary in comprehension activities that focus on drawing meaning from texts.

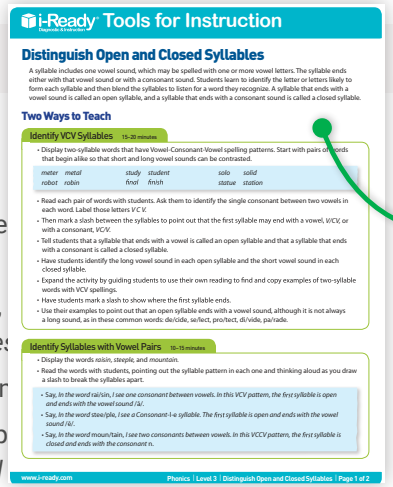
Recommendations for Teacher-Led Instruction

Phonics

Focus on decoding longer words.

Students in this profile are likely to be challenged by the multisyllabic words in intermediate-level texts.

- Teach or review the meaning of common prefixes (*in-*, and common suffixes (*-y*, *-ly*, *-ily*, *-er*, *-est*, *-ness*, *-ful*, *-les*
- Teach or review decoding multisyllabic words with cor
- Provide scaffolded support to help students develop p more complex spelling patterns: words with schwa + *l* difficult vowel + /r/; and irregular vowel pairs, such as *ie* in *relief* and *science*.


i-Ready Tools for Instruction

Distinguish Open and Closed Syllables

A syllable includes one vowel sound, which may be spelled with one or more vowel letters. The syllable ends either with that vowel sound or with a consonant sound. Students learn to identify the letter or letters likely to form each syllable and then blend the syllables to listen for a word they recognize. A syllable that ends with a vowel sound is called an open syllable, and a syllable that ends with a consonant sound is called a closed syllable.

Two Ways to Teach

Identify VCV Syllables 15–20 minutes

- Display two-syllable words that have Vowel-Consonant-Vowel spelling patterns. Start with pairs of words that begin alike so that short and long vowel sounds can be contrasted.

meter	*metal*	*study*	*student*	*solo*	*solid*
robot	*robin*	*final*	*finish*	*statue*	*station*

- Read each pair of words with students. Ask them to identify the single consonant between two vowels in each word. Label those letters *V C V*.
- Then mark a slash between the syllables to point out that the first syllable may end with a vowel, *V/CV*, or with a consonant, *VC/V*.
- Tell students that a syllable that ends with a vowel is called an open syllable and that a syllable that ends with a consonant is called a closed syllable.
- Have students identify the long vowel sound in each open syllable and the short vowel sound in each closed syllable.
- Expand the activity by guiding students to use their own reading to find and copy examples of two-syllable words with VCV spellings.
- Have students mark a slash to show where the first syllable ends.
- Use their examples to point out that an open syllable ends with a vowel sound, although it is not always a long sound, as in these common words: de/cide, se/lect, pro/tect, di/vide, pa/rade.

Identify Syllables with Vowel Pairs 10–15 minutes

- Display the words *raisin*, *steeple*, and *mountain*.
- Read the words with students, pointing out the syllable pattern in each one and thinking aloud as you draw a slash to break the syllables apart.
- *Say, In the word rai/sin, I see one consonant between vowels. In this VCV pattern, the first syllable is open and ends with the vowel sound /ā/.*
- *Say, In the word stee/ple, I see a Consonant-l-e syllable. The first syllable is open and ends with the vowel sound /ē/.*
- *Say, In the word moun/tain, I see two consonants between vowels. In this VCCV pattern, the first syllable is closed and ends with the consonant n.*

www.i-ready.com Phonics | Level 3 | Distinguish Open and Closed Syllables | Page 1 of 2

Resources

Tools for Instruction

Phonics

- Distinguish Open and Closed Syllables
- Multisyllabic Words with Prefixes and Suffixes
- Words with Two Vowels Sounded Separately
- Multisyllabic Words: Three and Four Syllables
- Multisyllabic Words: Three to Five Syllables

Vocabulary

Use read alouds.

Using read alouds, even with intermediate students, is a highly effective approach to increasing students' vocabulary. Use a variety of approaches to teach the meanings of words during reading, including thinking aloud about how you can deduce the meaning of an unfamiliar word. Target words from the read aloud to use in other contexts throughout the day.

Teach high-utility academic language.

Focus on critical-thinking words used across a range of academic contexts.

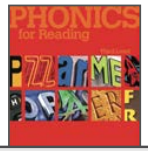
Additional Resources



PHONICS for Reading

Second Level

All the lessons in this book



Third Level

All the lessons in this book

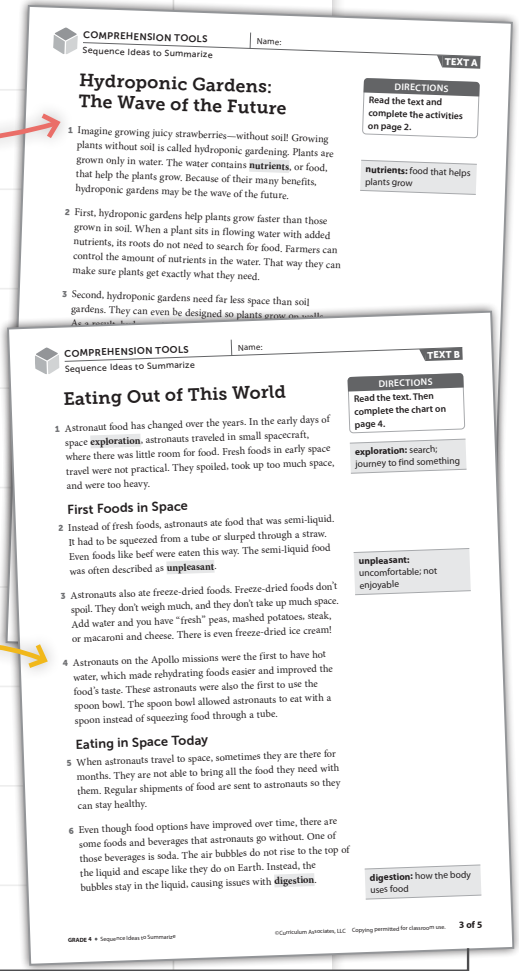
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Diagnostic Results

Provide All Students a Pathway to Grade-Level Instruction

Tools for Scaffolding Comprehension (TSCs) support acceleration to grade-level instruction by targeting the most important concepts and skills and teaching them efficiently.

Student	PA	PH	HFW	VOC	LIT	INFO	Percentile Rank	Date
Simmons, Tristan	Tested Out	Grade 2	Tested Out	Grade 1	Grade 2	Grade 2	9th	
Cochran, Damon	Tested Out	Max Score	Tested Out	Grade 2	Grade 3	Grade 3	12th	
Malone, Carla	Tested Out	Grade 3	Grade 2	Grade 3	Grade 3	Grade 3	27th	
Baker, Danielle	Tested Out	Grade 3	Tested Out	Grade 4	Grade 4	Grade 3	52nd	
Powell, Elijah	Tested Out	Grade 3	Tested Out	Grade 4	Grade 4	Grade 3	66th	
Hess, Michael	Tested Out	Grade 3	Tested Out	Grade 3	Grade 3	Grade 3	55th	
Lowe, Noah	Tested Out	Max Score	Tested Out	Grade 4	Grade 4	Grade 4	45th	
Ramirez, Gabriella	Tested Out	Max Score	Tested Out	Grade 4	Grade 4	Grade 4	38th	
Bowers, Tara	Tested Out	Max Score	Tested Out	Grade 4	Grade 4	Grade 4	42nd	
Greene, Nora	Tested Out	Max Score	Tested Out	Grade 4	Grade 4	Grade 4	52nd	



COMPREHENSION TOOLS
Sequence Ideas to Summarize
Name:
TEXT A

Hydroponic Gardens: The Wave of the Future

DIRECTIONS
Read the text and complete the activities on page 2.

1 Imagine growing juicy strawberries—without soil! Growing plants without soil is called hydroponic gardening. Plants are grown only in water. The water contains **nutrients**, or food, that help the plants grow. Because of their many benefits, hydroponic gardens may be the wave of the future.

nutrients: food that helps plants grow

2 First, hydroponic gardens help plants grow faster than those grown in soil. When a plant sits in flowing water with added nutrients, its roots do not need to search for food. Farmers can control the amount of nutrients in the water. That way they can make sure plants get exactly what they need.

3 Second, hydroponic gardens need far less space than soil gardens. They can even be designed so plants grow on walls.

COMPREHENSION TOOLS
Sequence Ideas to Summarize
Name:
TEXT B

Eating Out of This World

DIRECTIONS
Read the text. Then complete the chart on page 4.

1 Astronaut food has changed over the years. In the early days of space **exploration**, astronauts traveled in small spacecraft, where there was little room for food. Fresh foods in early space travel were not practical. They spoiled, took up too much space, and were too heavy.

exploration: search; journey to find something

First Foods in Space

2 Instead of fresh foods, astronauts ate food that was semi-liquid. It had to be squeezed from a tube or slurped through a straw. Even foods like beef were eaten this way. The semi-liquid food was often described as **unpleasant**.

unpleasant: uncomfortable; not enjoyable

3 Astronauts also ate freeze-dried foods. Freeze-dried foods don't spoil. They don't weigh much, and they don't take up much space. Add water and you have "fresh" peas, mashed potatoes, steak, or macaroni and cheese. There is even freeze-dried ice cream!

4 Astronauts on the Apollo missions were the first to have hot water, which made rehydrating foods easier and improved the food's taste. These astronauts were also the first to use the spoon bowl. The spoon bowl allowed astronauts to eat with a spoon instead of squeezing food through a tube.

Eating in Space Today

5 When astronauts travel to space, sometimes they are there for months. They are not able to bring all the food they need with them. Regular shipments of food are sent to astronauts so they can stay healthy.

6 Even though food options have improved over time, there are some foods and beverages that astronauts go without. One of those beverages is soda. The air bubbles do not rise to the top of the liquid and escape like they do on Earth. Instead, the bubbles stay in the liquid, causing issues with **digestion**.

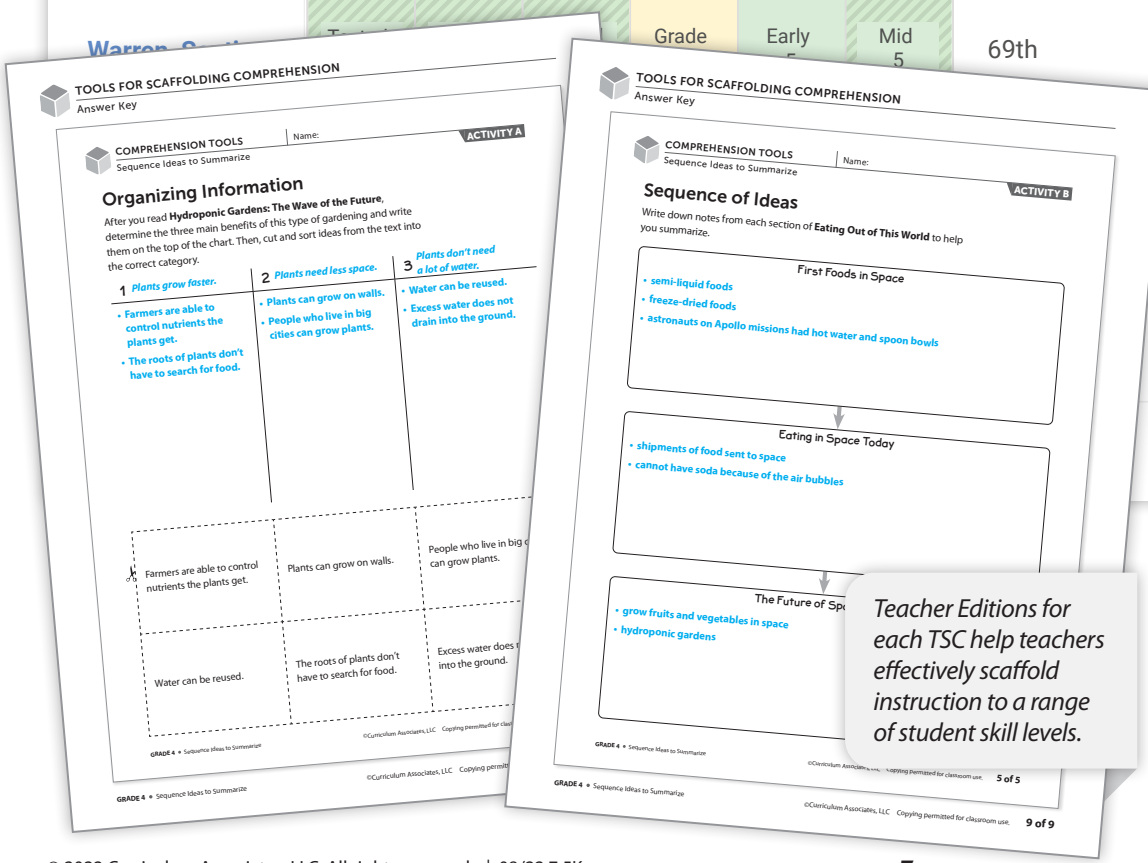
digestion: how the body uses food

GRADE 4 • Sequence Ideas to Summarize®

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3 of 5

Ruiz, Justin	Tested Out	Max Score	Tested Out	Grade 4	Early 5	Grade 4	61st	09/14/22
Choi, Isabelle	Tested Out	Grade 3	Tested Out	Grade 4	Grade 4	Grade 4	59th	09/14/22
Singh, Brian	Tested Out	Grade 3	Max Score	Grade 4	Grade 4	Grade 4	66th	09/14/22
McDonald, Kal	Tested Out	Max Score	Tested Out	Early 5	Early 5	Early 5	75th	09/14/22
Wade, Kiara	Tested Out	Max Score	Tested Out	Early 5	Mid 5	Early 5	83rd	09/14/22
Warren, S...				Grade	Early	Mid 5	69th	09/14/22
								09/14/22
								09/14/22
								09/14/22



Teacher Editions for each TSC help teachers effectively scaffold instruction to a range of student skill levels.

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Grade-Level Scaffolding

Identifies recommended reading pairs, groups students by learning needs around grade-level skills, and pinpoints resources to help prepare students for grade-level instruction

Subject: Reading | Class/Report Group: Reading Class A | Grade of Content: 5

When you're teaching a skill. . .

Select a skill to see readiness data, groupings, and instructional recommendations.

Summarize a literary text (ELA.5.R.3.2)

Students Grouped/Total: **20/21** (No Diagnostic: 1)



Ready to Go | Additional Support | In-Depth Support | Needs Support Decoding | No Diagnostic

When your class is reading a text. . .

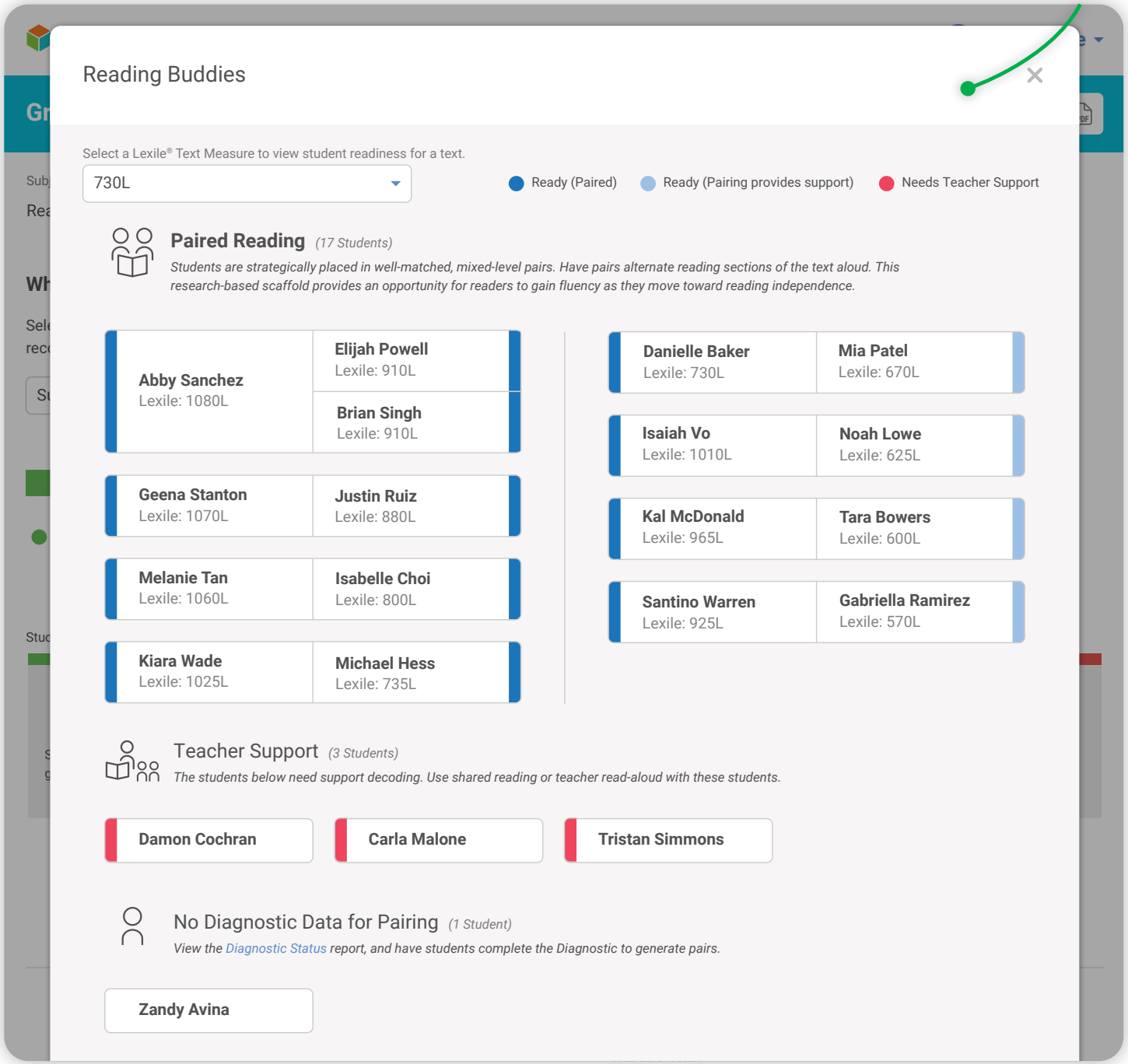
Select all Reading Buddies to see research-based, mixed-level pairings that will provide just the right level of support when reading a text.

Paired Reading	Teacher Support
17 Students	3 Students

All Reading Buddies

Students Grouped/Total: **21/21** (No Diagnostic: 0)

Ready to Go	Additional Support	In-Depth Support	Needs Support Decoding
7 Students	5 Students	5 Students	3 Students
Students are ready to summarize grade-level texts.	Students summarize text that is below grade level.	Students may need support determining key events and organizing them in order.	Students need explicit instruction on decoding, in addition to their comprehension instruction.
✓ Ready to Go	Tools for Scaffolding Comprehension: Summarize Literature Teacher - Use Scaffold B Student - Use Scaffold B	Tools for Scaffolding Comprehension: Summarize Literature Teacher - Use Scaffold A Student - Use Scaffold A	Skill 5: Decode Words with Silent Letters Consider using a phonics intervention program such as *PHONICS for Reading*



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Reading Personalized Instruction Summary for a Student

Personalized Instruction Summary ▾ **Danielle Baker** ▾ **Grade 5**

PDF CSV

Subject: Reading ▾

Date Range: All Activity ▾

Shows a student's progress through i-Ready *lessons in real time and highlights where that student is succeeding and where teachers should intervene to help students who need support*

Current & Past Lessons | Upcoming Lessons

Monitor Domain Progress

Domains	Grade K			Grade 1			Grade 2			Grade 3			Grade 4			Grade 5			Grade 6			Grade 7			Grade 8		
	E	M	L	E	M	L	E	M	L	E	M	L	E	M	L	E	M	L	E	M	L	E	M	L	E	M	L
Phonological Awareness (PA) View *Tested Out*																											
Phonics (PH) View										●	●																
High-Frequency Words (HFW) View *Tested Out*																											
⚠ **Vocabulary (VOC)** View													●	●	●	●											
Comprehension (COMP) View										●						●											
Comprehension: Close Reading (CR) View																											

On Grade Level

Activity Overview

Lessons Passed (YTD) **51/60** | **85%**

Total Lesson Time-on-Task (YTD) **20h 17m**

Domains	Passed/Completed	% Lessons Passed
Phonological Awareness (PA)	—	—
Phonics (PH)	3/3	100%
High-Frequency Words (HFW)	—	—
⚠ **Vocabulary (VOC)**	25/34	74%
Comprehension (COMP)	23/23	100%
Comprehension: Close Rea		

Lesson Time-on-Task: Year to Date
20h 17m

Last Week	Current Week
35m	44m

Comprehension

Text Structures, Part 1

Objectives:
- Understand an overall cause–effect text structure in part of a text
- Understand an overall compare–contrast text structure in part of a text
- Read and understand science articles

Preview

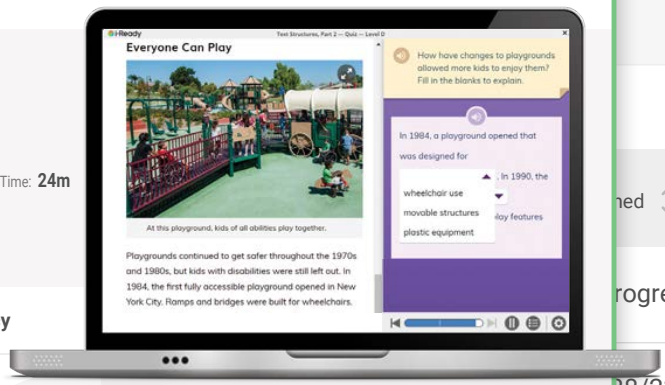
Estimated Total Run Time: **24m**

Instruction | Quiz

Curriculum Framework for English Language Arts and Literacy

Focus Standard(s)

RI.4.5 - Describe the overall structure (e.g., . . . comparison, cause/effect . . .) of events, ideas, concepts, or information in a text or part of a text.



Showing 14 of 60

Alerts	Domains							
	COMP							rogress
	COMP							28/23
	COMP				90%			28/23
	COMP	Late 4	Text Structures, Part 2	English	Passed 90%	29m	02/22/23	02/22/23
	COMP	Late 4	Text Structures, Part 1	English	Passed 90%	7m	02/22/23	02/22/23

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Reading Literacy Tasks for a Student

Literacy Tasks ▾ **Danielle Baker** ▾ **Grade 5**

PDF | CSV (2) ▾

Task Type: Passage Reading Fluen... ▾

Language: English ▾

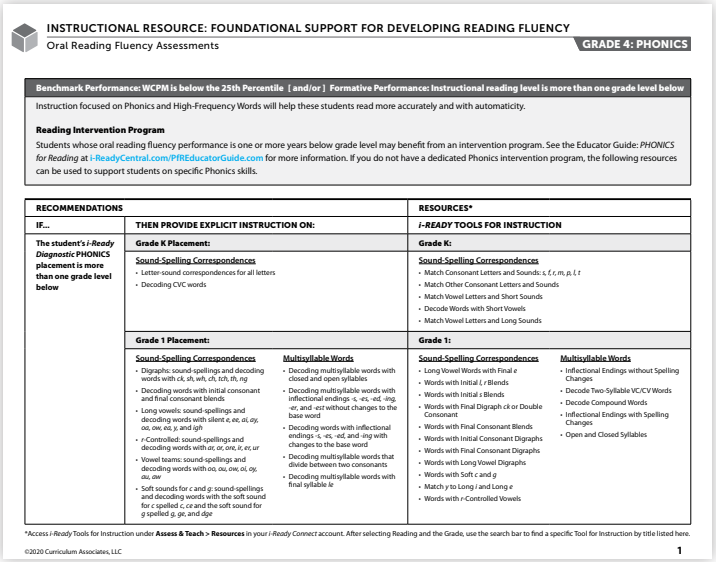
Provides insight into student progress toward reaching grade-level expectations for reading by providing tools to support the assessment of literacy skills through one-on-one administered tasks

Benchmark Assessments

Passage Reading Fluency

PDF Recommended Task Progressions

	Form ▾	Time of Year ⓘ	Content Grade	Mean Words Correct per Minute (WCPM)	Result	Percentile	Date
+	Benchmark 1	Fall	Grade 5	89	Below	25–49th	09/28/22
+	Benchmark 2	Winter	Grade 5	115	Below	25–49th	12/14/22



INSTRUCTIONAL RESOURCE: FOUNDATIONAL SUPPORT FOR DEVELOPING READING FLUENCY

Oral Reading Fluency Assessments — GRADE 4: PHONICS

Benchmark Performance: WCPM is below the 25th Percentile [and/or] Formative Performance: Instructional reading level is more than one grade level below

Instruction focused on Phonics and High-Frequency Words will help these students read more accurately and with automaticity.

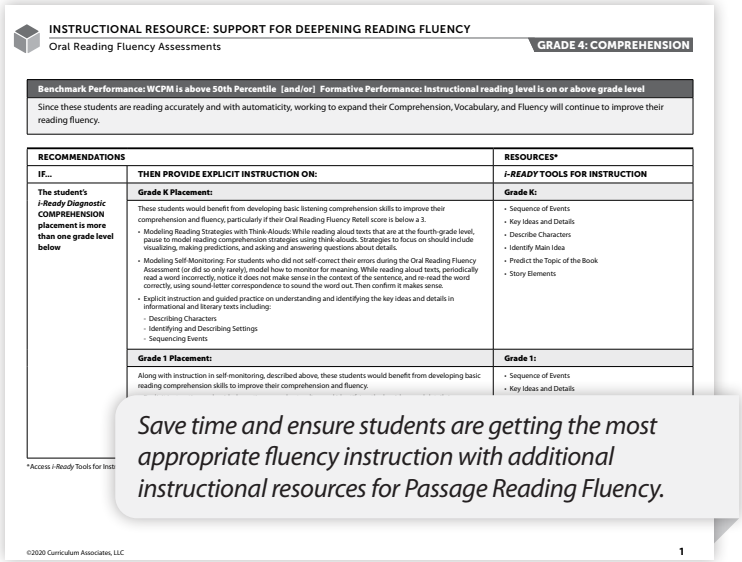
Reading Intervention Program

Students whose oral reading fluency performance is one or more years below grade level may benefit from an intervention program. See the Educator Guide: *PHONICS for Reading* at i-ReadyCentral.com/PIREducatorGuide.com for more information. If you do not have a dedicated Phonics intervention program, the following resources can be used to support students on specific Phonics skills.

RECOMMENDATIONS		RESOURCES*	
IF...	THEN PROVIDE EXPLICIT INSTRUCTION ON:	*i-READY* TOOLS FOR INSTRUCTION	
The student's *i-Ready Diagnostic* PHONICS placement is more than one grade level below	**Grade K Placement:**	**Grade K:**	
	Sound-Spelling Correspondences • Letter-sound correspondences for all letters • Decoding CVC words	Sound-Spelling Correspondences • Match Consonant Letters and Sounds: *s, f, r, m, p, l, t* • Match Other Consonant Letters and Sounds • Match Vowel Letters and Short Sounds • Decode Words with Short Vowels • Match Vowel Letters and Long Sounds	
	Grade 1 Placement:	**Grade 1:**	
	Sound-Spelling Correspondences • Digraphs: sound-spellings and decoding words with *ck, sh, wh, ch, tch, th, ng* • Decoding words with initial consonant and final consonant blends • Long vowels: sound-spellings and decoding words with silent *e*, *ae, ai, ay, oa, ow, ea, y,* and *igh* • *r*-Controlled: sound-spellings and decoding words with *ar, or, ore, ir, er, ur* • Vowel teams: sound-spellings and decoding words with *oo, ou, ow, oi, oy, au, aw* • Soft sounds for *c* and *g*: sound-spellings and decoding words with the soft sound for *c* spelled *c, ce* and the soft sound for *g* spelled *g, ge,* and *dge*	Multisyllable Words • Decoding multisyllable words with closed and open syllables • Decoding multisyllable words with inflectional endings *-s, -es, -ed, -ing, -er,* and *-est* without changes to the base word • Decoding words with inflectional endings *-s, -es, -ed,* and *-ing* with changes to the base word • Decoding multisyllable words that divide between two consonants • Decoding multisyllable words with final syllable *le*	Sound-Spelling Correspondences • Long Vowel Words with Final *e* • Words with Initial *l, r* Blends • Words with Initial *s* Blends • Words with Final Digraph *ck* or Double Consonant • Words with Final Consonant Blends • Words with Initial Consonant Digraphs • Words with Final Consonant Digraphs • Words with Long Vowel Digraphs • Words with Soft *c* and *g* • Match *y* to Long *i* and Long *e* • Words with *r*-Controlled Vowels	Multisyllable Words • Inflectional Endings without Spelling Changes • Decode Two-Syllable VC/CV Words • Decode Compound Words • Inflectional Endings with Spelling Changes • Open and Closed Syllables

*Access *i-Ready* Tools for Instruction under **Assess & Teach** > **Resources** in your *i-Ready Connect* account. After selecting Reading and the Grade, use the search bar to find a specific Tool for Instruction by title listed here.

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INSTRUCTIONAL RESOURCE: SUPPORT FOR DEEPENING READING FLUENCY

Oral Reading Fluency Assessments — GRADE 4: COMPREHENSION

Benchmark Performance: WCPM is above 50th Percentile [and/or] Formative Performance: Instructional reading level is on or above grade level

Since these students are reading accurately and with automaticity, working to expand their Comprehension, Vocabulary, and Fluency will continue to improve their reading fluency.

RECOMMENDATIONS		RESOURCES*
IF...	THEN PROVIDE EXPLICIT INSTRUCTION ON:	*i-READY* TOOLS FOR INSTRUCTION
The student's *i-Ready Diagnostic* COMPREHENSION placement is more than one grade level below	**Grade K Placement:** These students would benefit from developing basic listening comprehension skills to improve their comprehension and fluency, particularly if their Oral Reading Fluency Retell score is below a 3. • Modeling Reading Strategies with Think-Alouds: While reading aloud texts that are at the fourth-grade level, pause to model reading comprehension strategies using think-alouds. Strategies to focus on should include visualizing, making predictions, and asking and answering questions about details. • Modeling Self-Monitoring: For students who did not self-correct their errors during the Oral Reading Fluency Assessment (or did so only rarely), model how to monitor for meaning. While reading aloud texts, periodically read a word incorrectly, notice it does not make sense in the context of the sentence, and re-read the word correctly, using sound-letter correspondence to sound the word out. Then confirm it makes sense. • Explicit instruction and guided practice on understanding and identifying the key ideas and details in informational and literary texts including: - Describing Characters - Identifying and Describing Settings - Sequencing Events	**Grade K:** • Sequence of Events • Key Ideas and Details • Describe Characters • Identify Main Idea • Predict the Topic of the Book • Story Elements
	Grade 1 Placement: Along with instruction in self-monitoring, described above, these students would benefit from developing basic reading comprehension skills to improve their comprehension and fluency.	**Grade 1:** • Sequence of Events • Key Ideas and Details

*Access *i-Ready* Tools for Insti

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Save time and ensure students are getting the most appropriate fluency instruction with additional instructional resources for Passage Reading Fluency.

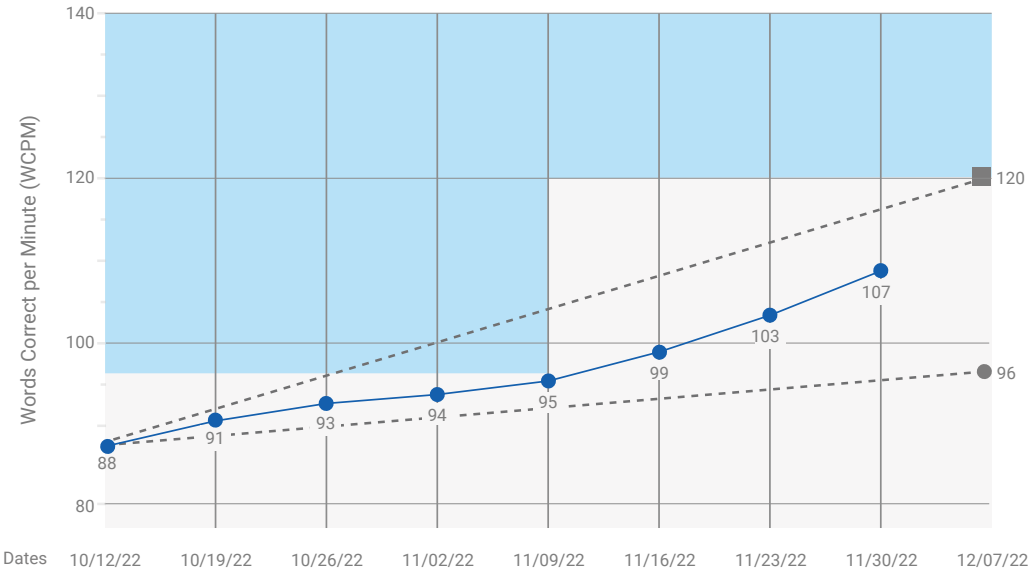
Progress Monitoring*

Passage Reading Fluency

Progress Monitoring Period Start Date: 10/12/22

Passage Level Grade: Grade 4

Progress Monitoring Frequency: Weekly



Grade 4 50th Percentile and Above

Grade 4 Performance Goal Aim Line

Grade 4 Goal WCPM	Grade 4 Goal Average ROI
120	**4.00**

Typical Rate of Improvement (ROI) Aim Line

Typical ROI WCPM	Typical ROI
96	**1.00**

Actual WCPM Line

Most Recent WCPM	Average ROI to Date
107	**2.71**

	Form	Date	Words Correct per Minute (WCPM)
+	Treasures at the Beach	10/12/22 (Baseline)	88
+	Time for It All	10/19/22	91
+	The Decision	10/26/22	93

*Graph coming for the 2022–2023 school year. Aim lines available for Passage Reading Fluency only.

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Reading Diagnostic Growth for a Student

Diagnostic Growth ▾ **Danielle Baker** ▾ **Grade 5**

Subject

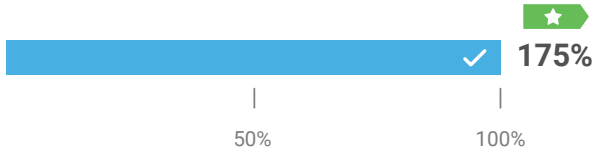
Reading ▾

Gives a clear view of progress toward proficiency and annual growth expectations for each student

Year-to-Date Growth

Progress to Annual Typical Growth

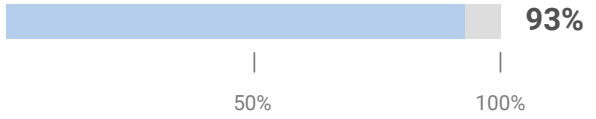
Scale Points: 28/16



This student has made 175% progress toward Annual Typical Growth. Typical Growth is the average annual growth for a student at this grade and placement level on their baseline Diagnostic.

Progress to Annual Stretch Growth®

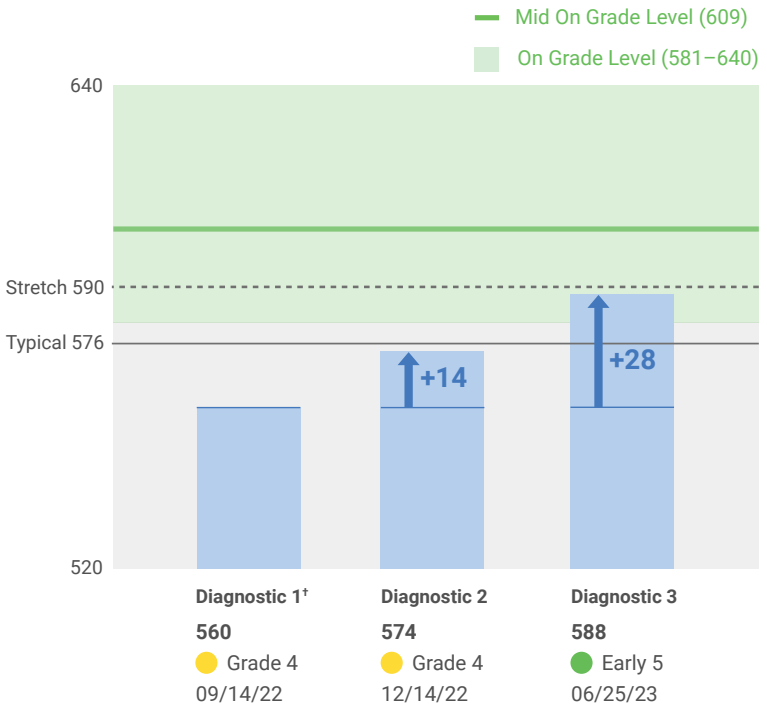
Scale Points: 28/30



This student has made 93% progress toward Stretch Growth. For students who are below grade level on their baseline Diagnostic, Stretch Growth is an ambitious, but attainable, level of annual growth that puts them on a path toward proficiency.

This student will likely need to meet or exceed their Annual Stretch Growth target for at least two years to be proficient if the student is not proficient already. This is based on students with the same baseline placement who eventually achieved proficiency. Proficient for Grade 5 is a Mid On Grade Level scale score of 609.

Overall Diagnostic Growth



†This Diagnostic is considered the baseline and is used to establish growth measures for this student.

Placement by Domain

Domain	Diagnostic 1	Diagnostic 2	Diagnostic 3
Overall ↑	**Grade 4**	**Grade 4**	**Early 5**
Phonological Awareness*	Tested Out	Tested Out	Tested Out
Phonics* ↑	Grade 3	Max Score	Tested Out
High-Frequency Words*	Tested Out	Tested Out	Tested Out
Vocabulary ↑	Grade 4	Early 5	Mid 5
Comprehension: Literature ↑	Grade 4	Grade 4	Early 5
Comprehension: Informational Text ↑	Grade 3	Grade 3	Grade 4

Show Overall Comprehension

↑ Placement Improved from Baseline

*Foundational Domains

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Reading Diagnostic Growth for a Class

Diagnostic Growth

Subject: Reading

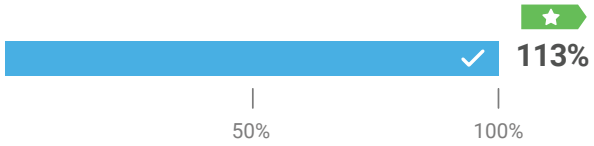
Class/Report Group: Grade 5, Section 1

Comparison Diagnostic: Diagnostic Window 3

05/01/23–06/01/23

Gives a clear view of progress toward proficiency and annual growth expectations across a class and for each student

Progress to Annual Typical Growth (Median)



The median percent progress toward Typical Growth for this group is 113%. Typical Growth is the average annual growth for a student in their grade and baseline placement level.

Learn More about Growth

Current Placement Distribution

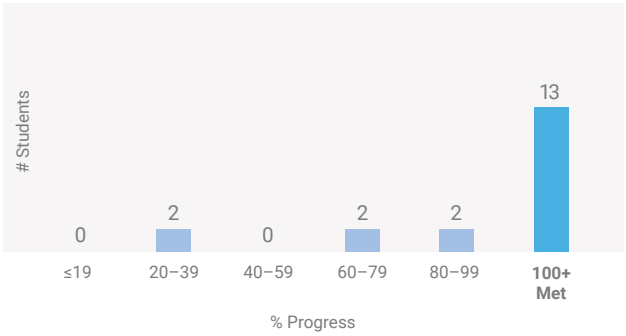


Mid or Above Grade Level	Early On Grade Level	One Grade Level Below	Two Grade Levels Below	Three or More Grade Levels Below
25% (From 15%)	**43%** (From 20%)	**22%** (From 50%)	**5%** (From 5%)	**5%** (From 10%)

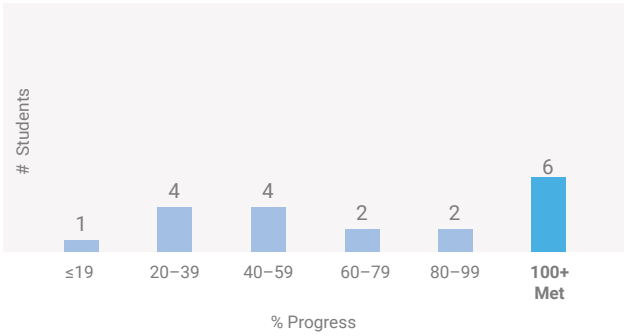
The Mapping between 5-Level and 3-Level Placements

– Progress Distributions

Distribution of Progress to Annual
Typical Growth



Distribution of Progress to Annual
Stretch Growth®



Showing 20 of 20

Student	Annual Typical Growth		Annual Stretch Growth®		Baseline Placement & Scale Score	Current Placement & Scale Score
	Percent Progress	Scale Score Progress	Percent Progress	Scale Score Progress		
Baker, Danielle	175%	28/16	93%	28/30	Grade 4 (560)	Early 5 (588)
Bowers, Tara	69%	11/16	37%	11/30	Grade 4 (547)	Grade 4 (558)
Choi, Isabelle	188%	30/16	100%	30/30	Grade 4 (568)	Early 5 (598)
Cochran, Damon	112%	29/26	48%	29/61	Grade 2 (490)	Grade 3 (519)
Lowe, Noah	113%	18/16	60%	18/30	Grade 4 (550)	Grade 4 (568)
Malone, Carla	245%	49/20	104%	49/47	Grade 3 (522)	Grade 4 (571)
McDonald, Kal	38%	5/13	20%	5/25	Early 5 (589)	Early 5 (594)
Patel, Mia	200%	32/16	107%	32/30	Grade 4 (560)	Early 5 (592)
Powell, Elijah	175%	28/16	93%	28/30	Grade 4 (577)	Early 5 (605)
Ramirez, Gabriella	138%	22/16	73%	22/30	Grade 4 (542)	Grade 4 (564)
Ruiz, Justin	75%	12/16	40%	12/30	Grade 4 (571)	Early 5 (583)
Sanchez, Abby	271%	19/7	106%	19/18	Mid 5 (615)	Late 5 (634)
Simmons, Tristan	31%	8/26	13%	8/61	Grade 2 (479)	Grade 2 (487)

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Reading Diagnostic Growth for a School

Diagnostic Growth

Subject: Reading

School: Cedar Elementary

Gives a clear view of progress toward proficiency and annual growth expectations across a school, grade, or class

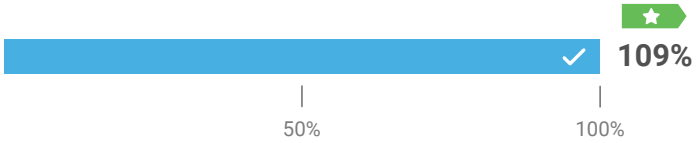
Academic Year: Current Year

Comparison Diagnostic: Diagnostic 3

05/01/23–06/01/23

Students Assessed/Total: **359/362**

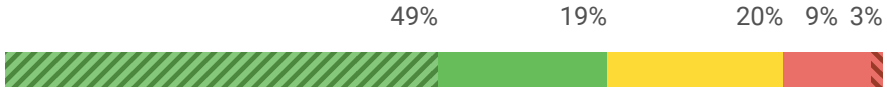
Progress to Annual Typical Growth (Median)



The median percent progress toward Typical Growth for this school is 109%. Typical Growth is the average annual growth for a student at their grade and baseline placement level.

Learn More about Growth

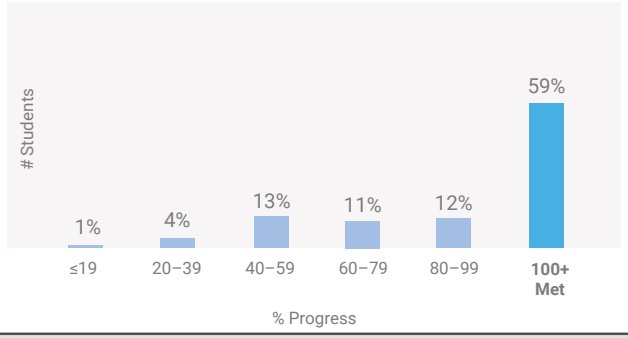
Current Placement Distribution



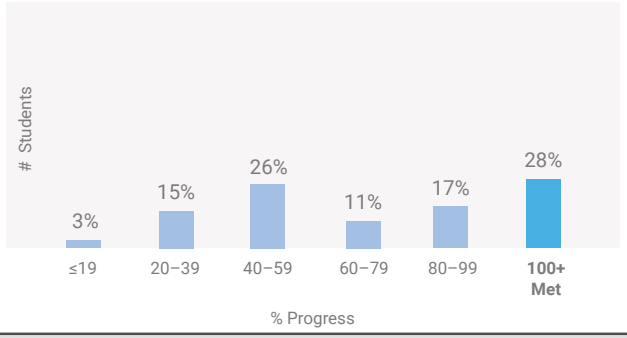
Mid or Above Grade Level	Early On Grade Level	One Grade Level Below	Two Grade Levels Below	Three or More Grade Levels Below
(From 25%)	**(From 15%)**	**(From 39%)**	**(From 16%)**	**(From 5%)**

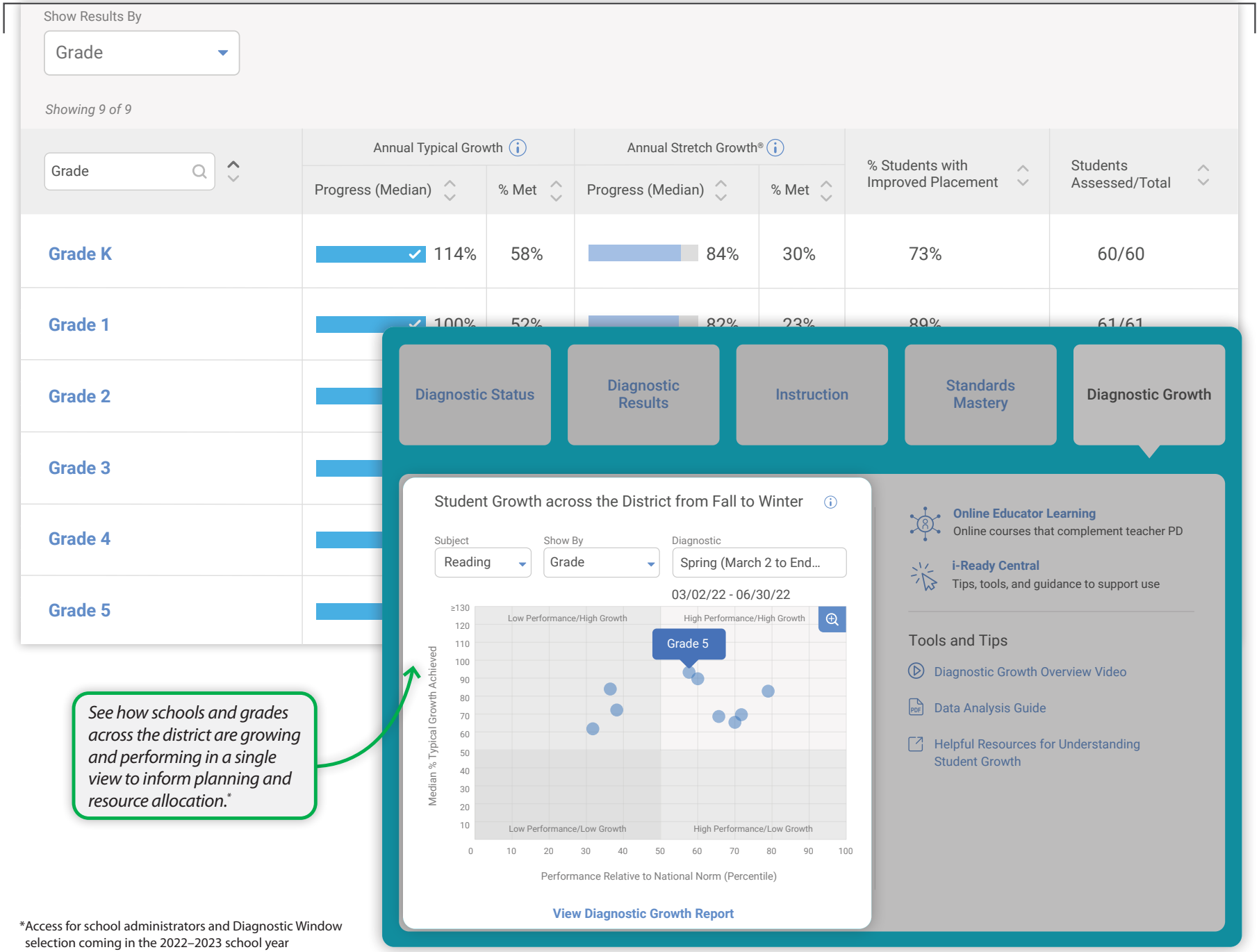
The Mapping between 5-Level and 3-Level Placements

Distribution of Progress to Annual
Typical Growth



Distribution of Progress to Annual
Stretch Growth®





*See how schools and grades across the district are growing and performing in a single view to inform planning and resource allocation.**

*Access for school administrators and Diagnostic Window selection coming in the 2022–2023 school year

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Reading Diagnostic Results for a District
Comparison View

Diagnostic Results

Subject: Reading

School: All Schools

Provides a comprehensive picture of student performance by school, grade, class, and key demographics, allowing administrators to set intervention strategies and make resource allocation decisions

Academic Year: Current Year

Diagnostic: Diagnostic 2 — 12/01/22–12/31/22

Prior Diagnostic: Diagnostic 1 — 08/31/22–09/30/22

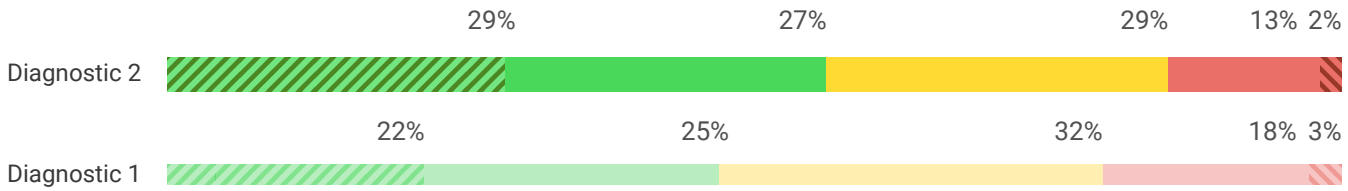
Criterion Referenced

Enhanced

3-Level Placement | **5-Level Placement**

Overall Placement

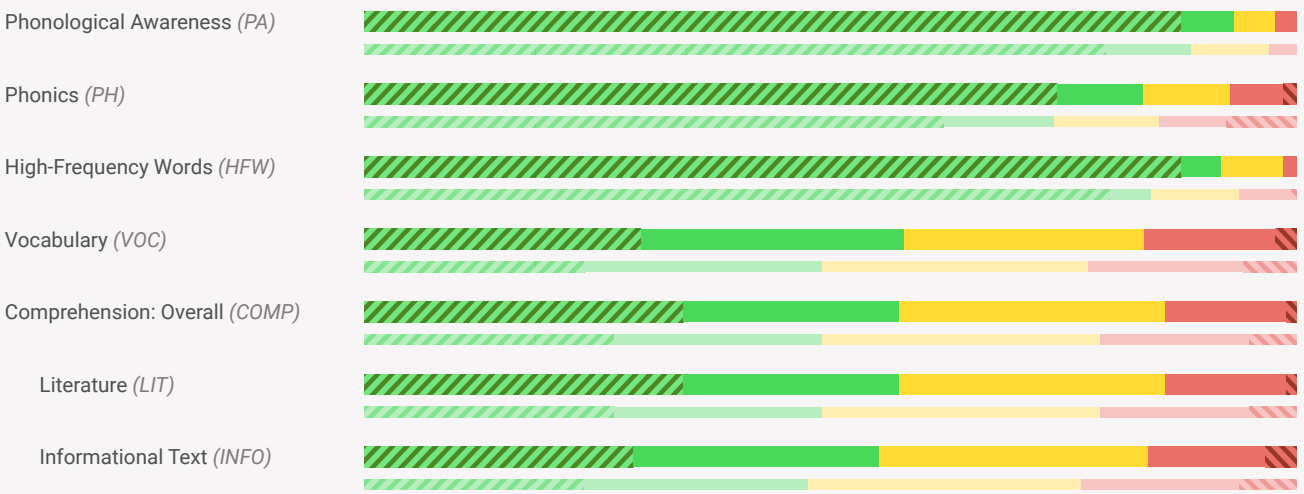
Students Assessed/Total: **5,370/5,430**



Mid or Above Grade Level	Early On Grade Level	One Grade Level Below	Two Grade Levels Below	Three or More Grade Levels Below
1,580 Students (From 1,180 Students)	**1,470 Students** (From 1,320 Students)	**1,550 Students** (From 1,700 Students)	**690 Students** (From 940 Students)	**80 Students** (From 230 Students)

ⓘ The Mapping between 5-Level and 3-Level Placements

Placement By Domain



All School Groups > All Schools

Switch Table View

Placement Summary

*Filter results by two demographics for more precise data analysis.**

Choose to Show Results By

Sex

Secondary Demographic to Show Results By

Economically Disadvan... Remove

Showing 3 of 3

All	All		Overall Grade-Level Placement						Students Assessed/Total
Female	Yes - Economically D...	Diagnostic 2		11%	46%	43%	18%	2%	1,150/1,165
		Diagnostic 1		4%	17%	48%	25%	7%	

*Enhancement coming 2022–2023 school year

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Reading Standards Performance for a Class

CCSS Performance **State-specific in most states!**

PDF CSV

Subject: Reading | Class/Report Group: Grade 5, Section 1 | Grade: 5 | Diagnostic: Diagnostic Window 1

08/31/22–09/30/22

Shows how students are performing against state standards, based on the results of each Diagnostic

Students Assessed/Total: **20/20**

Common Core State Standards for English Language Arts

Grade(s) of Standards: Grade 5 to Grade 5 | Switch Table View: Skill Summary

Showing 30 of 30

Standard Code	Standard Description	✓	✓✓	✗
RL.5.1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.	7	0	13
RL.5.1	Quote accurately from a text when . . . drawing inferences from the text.	7	0	13
RL.5.2	Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.	–	8	12
RL.5.2	. . . Summarize the text.	8	0	12
RL.5.2	Determine a theme of a story, drama, or poem from details in the text . . .	7	0	13
RL.5.3	Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).	4	4	12
RL.5.4	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.	6	1	13
RL.5.4	Determine the meaning of words and phrases as they are used in a text . . .	7	0	13

CCSS Performance

Subject: Reading | Class/Report Group: Grade 5, Section 1 | Grade: 5 | Diagnostic: Diagnostic Window 1 (08/31/22–09/30/22) | Key

Students Assessed/Total: **20/20**

Common Core State Standards for English Language Arts

Grade(s) of Standards: Grade 5 to Grade 5 | Switch Table View: RL.5.3

All Students Performance: ✓ 4 | ✓ 4 | ✗ 12

Standard Description

Reading
Literature
Key Ideas and Details

Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).

Showing 20 of 20

Student	Performance	Date
Sanchez, Abby	✓	09/20/22
Stanton, Geena	✓	09/20/22
Tan, Melanie	✓	09/20/22
Wade, Kiara	✓	09/20/22

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Reading Standards Mastery Results by Test for a Class Item Analysis View

Standards Mastery Results by Test

Subject: Reading | Class/Report Group: Grade 5, Section 1 | Assessment: Grade 5 Reading

Shows student performance on recently taught standards to inform reteaching, down to the question level

Students Completed/Assigned: **14/19** Students Unassigned: **1**

Skills Summary

3 Skills Assigned

Standards	Skill	Performance Distribution	Avg. Score	Resources
RI.5.5	Compare Text Structures: Grade 5		57%	
RI.5.7	Find Information from Multiple Sources: Grade 5		43%	
RL.5.7	Analyze Visual Elements: Grade 5		39%	

Assessment Summary

46% Average Assessment Score

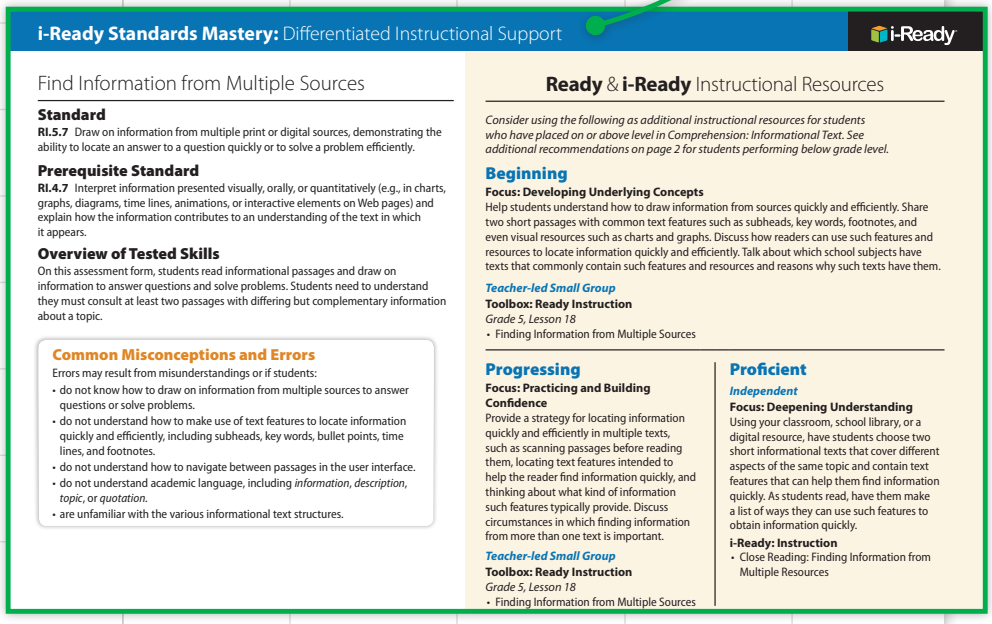
3	5	6
Proficient	Progressing	Beginning

RI.5.5 — Use dropdown to view Skill Summary — View Assessment — Key

Showing 20 of 20

Student	Assessment Score	Skill Score	1	2	3	4A	4B	5

Class Summary	46%	60%	60%	85%	76%	64%	43%	35%
Ramirez, Gabriella	90%	100%						
Tan, Melanie	85%	79%						
Sanchez, Abby	84%	79%						
Singh, Brian	64%	51%						
Baker, Danielle	55%	51%						
Powell, Elijah	51%	51%						
Wade, Kiara	42%	62%						
Stanton, Geena	34%	30%						
Ruiz, Justin	31%	30%						
McDonald, Kal	30%	30%						



i-Ready Standards Mastery: Differentiated Instructional Support

i-Ready

Find Information from Multiple Sources

Standard

RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

Prerequisite Standard

RI.4.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

Overview of Tested Skills

On this assessment form, students read informational passages and draw on information to answer questions and solve problems. Students need to understand they must consult at least two passages with differing but complementary information about a topic.

Common Misconceptions and Errors

Errors may result from misunderstandings or if students:

- do not know how to draw on information from multiple sources to answer questions or solve problems.
- do not understand how to make use of text features to locate information quickly and efficiently, including subheads, key words, bullet points, time lines, and footnotes.
- do not understand how to navigate between passages in the user interface.
- do not understand academic language, including *information*, *description*, *topic*, or *quotation*.
- are unfamiliar with the various informational text structures.

Ready & i-Ready Instructional Resources

Consider using the following as additional instructional resources for students who have placed on or above level in Comprehension: Informational Text. See additional recommendations on page 2 for students performing below grade level.

Beginning

Focus: Developing Underlying Concepts

Help students understand how to draw information from sources quickly and efficiently. Share two short passages with common text features such as subheads, key words, footnotes, and even visual resources such as charts and graphs. Discuss how readers can use such features and resources to locate information quickly and efficiently. Talk about which school subjects have texts that commonly contain such features and resources and reasons why such texts have them.

Teacher-led Small Group

Toolbox: Ready Instruction

Grade 5, Lesson 18

- Finding Information from Multiple Sources

Progressing

Focus: Practicing and Building Confidence

Provide a strategy for locating information quickly and efficiently in multiple texts, such as scanning passages before reading them, locating text features intended to help the reader find information quickly, and thinking about what kind of information such features typically provide. Discuss circumstances in which finding information from more than one text is important.

Teacher-led Small Group

Toolbox: Ready Instruction

Grade 5, Lesson 18

- Finding Information from Multiple Sources

Proficient

Independent

Focus: Deepening Understanding

Using your classroom, school library, or a digital resource, have students choose two short informational texts that cover different aspects of the same topic and contain text features that can help them find information quickly. As students read, have them make a list of ways they can use such features to obtain information quickly.

i-Ready: Instruction

- Close Reading: Finding Information from Multiple Resources

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Standards Mastery Results

Offers detailed, student-level item analysis and suggested resources for addressing gaps and reteaching grade-level standards at the district, school, and class level

School	CEDAR ELEMENTARY
Subject	Reading
Student	Baker, Danielle
Student ID	013189
Student Grade	5
Assessment	Grade 5 Reading RI.5.5: Compare Text Structures
Score	50%
Completion Date	11/10/22

Use this report to review a student's results on a Standards Mastery assessment. Review the student's responses and common misconceptions for each wrong answer.

Read the passages. Then answer the questions that follow.

Saving the Bald Eagle

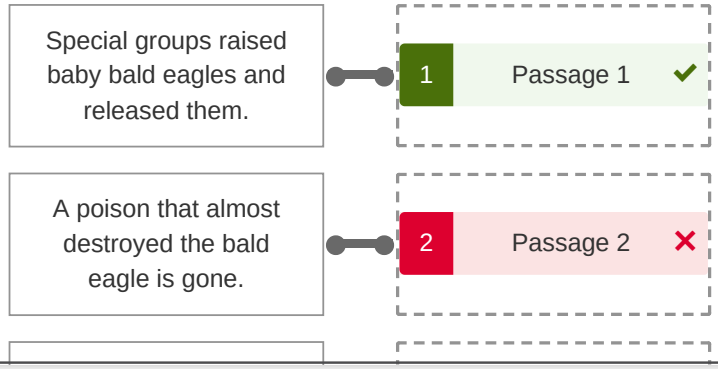
A Bird in Need

1 The bald eagle is an important bird in the United States because it is the nation's symbol for freedom. However, this beautiful creature was almost destroyed in the very nation that honors it. The bald eagle was dying out slowly over hundreds of years due to a few major problems.

2 One problem was that people were taking over the eagle's habitat and destroying its home. People cut down trees where the birds nested and ate the eagle's food sources. As people moved into areas where the birds lived, they even killed eagles!

0.25/1 point

Parts of both passages use a similar structure. The problem of the disappearance of the bald eagle is described in both passages. The sentences below describe solutions for that problem. Decide whether each solution on the left below is found in Passage 1, Passage 2, or both passages. Drag your answers to the boxes on the right.



3 Another problem was that people were using a pesticide[1] called DDT on plants. Fish ate the plants, and eagles, in turn, ate the fish. DDT made the eagles very sick, and their eggs could no longer hatch. Over time, there were very few bald eagles left in the United States.

Working Together

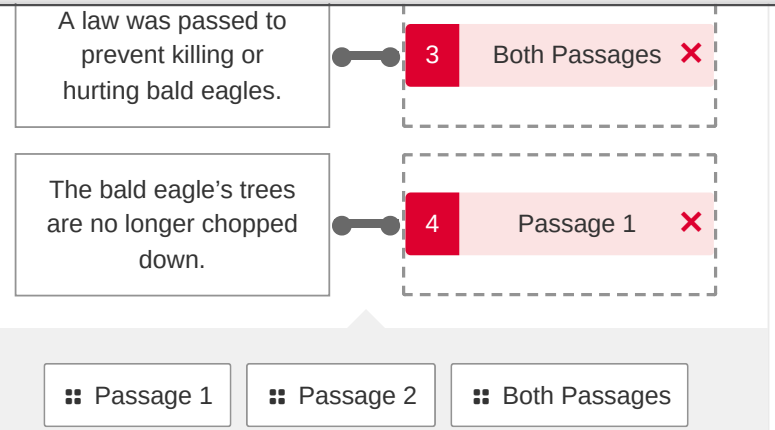
4 The government developed ways to solve the problems we had created. It did not want to lose its national symbol, so it listed the bald eagle as an "endangered species." This meant that the bird was in danger of dying out completely. It became against the law to kill or hurt bald eagles. Another law was passed against the use of DDT, and this poison was no longer allowed to be used anywhere in the country.

5 The government and other groups also worked hard to protect the bald eagle's habitat. Special groups raised baby bald eagles and then released the eagles into the wild. They also watched over nesting trees to make sure the eggs and babies were safe from harm.

6 All of these efforts greatly helped to solve many problems that the bald eagle faced. The number of bald eagles in the United States slowly increased until finally the bird was no longer an endangered species. Today, the government is still watching over the bald eagle even though it is out of danger. We do not want the nation's bird to ever be threatened again!

Facts about the Bald Eagle

- Before settlers arrived, there were as many as 500,000 bald eagles in the United States.
- By 1963, there were fewer than 500 nesting pairs of bald eagles in the United States.
- Today, there are more than 9,500 nesting pairs of bald eagles in the United States.



Correct answers:

2 Both Passages
3 Passage 1
4 Passage 2

Students may have an incorrect response because they do not understand how to compare and contrast the overall structure of information in two texts. They may not understand that while both passages offer solutions to the same problem, some of the stated solutions are shared, and some are unique, to the specific passage. Both passages mention elimination of poison, but only Passage 1 talks about laws passed to eliminate DDT and to prevent killing or harming bald eagles. Both passages make reference to protecting the eagle's habitat, but only Passage 2 describes specific actions regarding saving trees. Both passages talk about the efforts of people to prevent the disappearance of bald eagles, but only Passage 1 tells about special groups raising and releasing the birds.

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Mathematics Diagnostic Results for a Class

Diagnostic Results

Subject: Math

Class/Report Group: Grade 5, Section 1

Diagnostic: Diagnostic 1

08/31/22–09/30/22

Gives a comprehensive picture of class instructional needs, including criterion-referenced grade-level placements, national norms, and growth measures, based on data from each Diagnostic

3-Level Placement | 5-Level Placement (Enhanced)

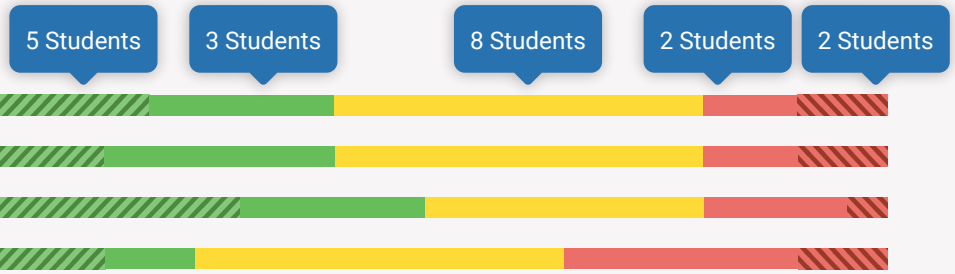
Overall Placement



Mid or Above Grade Level	Early On Grade Level	One Grade Level Below	Two Grade Levels Below	Three or More Grade Levels Below
15%	20%	45%	5%	15%

The Mapping between 5-Level and 3-Level Placements

Placement by Domain*



*Students not completed are not included.

Showing 20 of 20

Choose Your Column:

Student	Overall Placement & Scale Score	Placement by Domain				National Norms
		NO	ALG	MS	GEO	
Tan, Melanie	Mid 5 (517)	Late 5	Early 5	Late 5	Mid 5	
Sanchez, Abby	Mid 5 (516)	Late 5	Mid 5	Mid		
Stanton, Geena	Mid 5 (512)	Mid 5	Mid 5	Late 5	Mid 5	94th
Warren, Santino	Early 5 (491)	Mid 5	Grade 4	Mid 5	Mid 5	79th
Bowers, Tara	Grade 4 (472)	Early 5	Grade 4	Grade 4	Grade 4	52nd
Jones, Anna	Grade 4 (472)	Grade 4	Mid 5	Grade 4	Grade 4	52nd
Powell, Elijah	Grade 4 (470)	Grade 4	Grade 4	Grade 4	Grade 3	50th
Lowe, Noah	Grade 4 (470)	Grade 4	Grade 4	Early 5	Grade 4	50th
Baker, Danielle	Grade 4 (459)	Grade 4	Grade 4	Grade 4	Grade 3	35th
Ruiz, Justin	Grade 4 (450)	Grade 4	Grade 4	Grade 3	Grade 3	25th
Malone, Carla	Grade 3 (440)	Grade 3	Grade 3	Grade 3	Grade 3	17th

- Annual Growth Measures
- Quantile® measure & range
- National Norms
- Date
- Diagnostic Language

Criterion Referenced

Norm Referenced

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Mathematics Diagnostic Results for a Student

Diagnostic Results ▾ **Elijah Powell** ▾ **Grade 5**

Uses criterion-referenced grade-level placements to give teachers insight into the instructional strengths, areas of need, and annual growth expectations for each student

Subject: Math ▾

Diagnostic: Diagnostic 1 (09/14/22) ▾

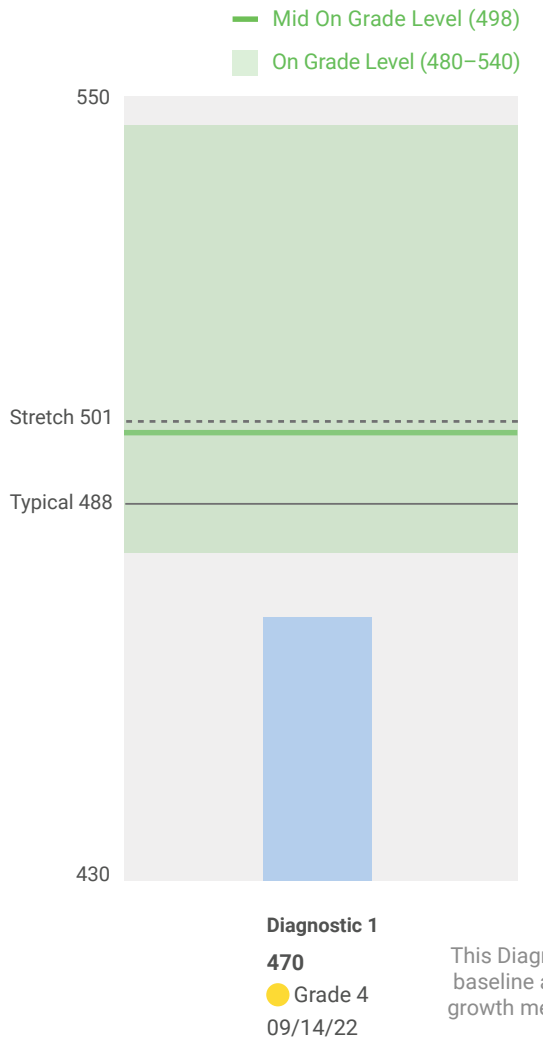
Diagnostic 1

Typical Growth

Typical Growth: The average annual growth for a student at this grade and placement level on their baseline Diagnostic.

Stretch Growth®

Stretch Growth: An ambitious, but attainable, level of annual growth that puts students who are not yet proficient (Mid On Grade Level or above) on a path toward proficiency and helps students who are already on track for proficiency to achieve or maintain advanced proficiency levels.



This Diagnostic is considered the baseline and is used to establish growth measures for this student.

Overall

Grade 4 (470)

Standard Error +/- 7

Domain	Placement	Can Dos & Next Steps
Number and Operations	Grade 4	↓
Algebra and Algebraic Thinking	Grade 4	↓
Measurement and Data	Grade 4	↓
Geometry	Grade 3	↓

National Norm Performance and Quantile® Framework for Mathematics Measure

National Norm
50th Percentile

Quantile® Measure: **685Q**

Quantile Range: 635Q–735Q

Understanding Quantile Measures

The Lexile® & Quantile® Hub provides educators, parents, and students with easy access to math tools. Discover new and enhanced Quantile tools that support student learning and growth at Hub.Lexile.com.

How to Use Quantile Tools on the Hub

Placement by Domain

Test results suggest that Elijah would benefit from intervention focused on skills and concepts related to quantitative reasoning and representation. Instruction that connects understanding of number relationships with computation and problem-solving skills will strengthen Elijah's mathematics abilities across domains. This priority places Elijah in Instructional Grouping 2.

Number and Operations	Algebra and Algebraic Thinking	Measurement and Data	Geometry
Grade 4 449	Grade 4 457	Grade 4 466	Grade 3 436

Developmental Analysis

At placement levels 3–5, this domain addresses four operations with whole numbers with an emphasis on multiplication and division, as well as understanding of and computation with decimals and fractions. Test results indicate that Elijah could benefit from practicing multi-digit whole number operations and fraction concepts.

Can Do

Base Ten

Read and write whole numbers through hundred millions in expanded form and standard form and identify the value of the digits.

Standards

Next Steps & Resources for Instruction

Base Ten

− Subtract multi-digit numbers.

Subtract multi-digit numbers

Tools for Instruction

Subtract Multi-Digit Numbers

Restar números enteros de varios digitos

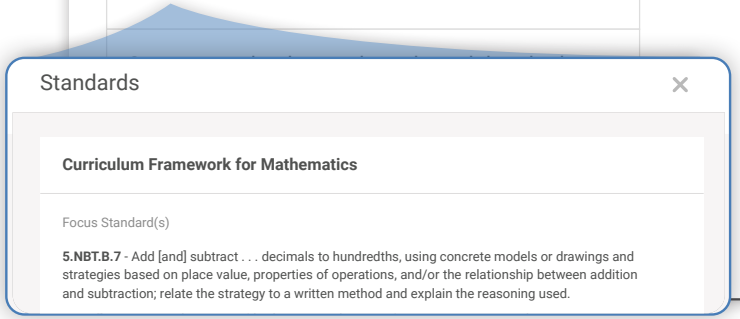
Additional Resources

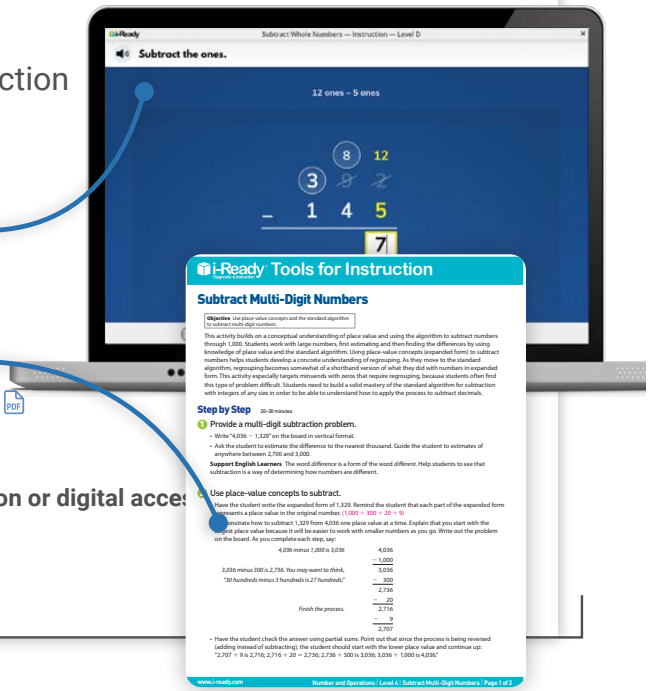


Ready Mathematics instruction or digital acces
Teacher Toolbox

Learn More

- Grade 4





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Instructional Groupings

Subject: Math | Class/Report Group: Grade 5, Section 1 | Diagnostic: Diagnostic Window 1 (08/31/22–09/30/22) | Grade: Grade 5

Groups students with similar instructional needs and, for each group, provides the teacher with detailed instructional priorities and classroom resources to support differentiated instruction

View All Groupings | Grouping 1 (4 Students) | **Grouping 2 (10 Students)** | Grouping 3 (0 Students) | Grouping 4 (2 Students) | Grouping 5 (4 Students)

Students

Showing 10 of 10

Student	Diagnostic Language	Scale Score	Overall Placement	NO	ALG	MS	GEO
Baker, Danielle		459	Grade 4	Grade 4	Grade 4	Grade 4	Grade 3
Bowers, Tara		472	Grade 4	Early 5	Grade 4	Grade 4	Grade 4
Choi, Isabelle		470	Grade 4	Grade 4	Grade 4	Grade 4	Grade 4
Jones, Anna	*Spanish*	472	Grade 4	Grade 4	Mid 5	Grade 4	Grade 4
Lowe, Noah		470	Grade 4	Grade 4	Grade 4	Early 5	Grade 3
Powell, Elijah		470	Grade 4	Grade 4	Grade 4	Grade 4	Grade 4

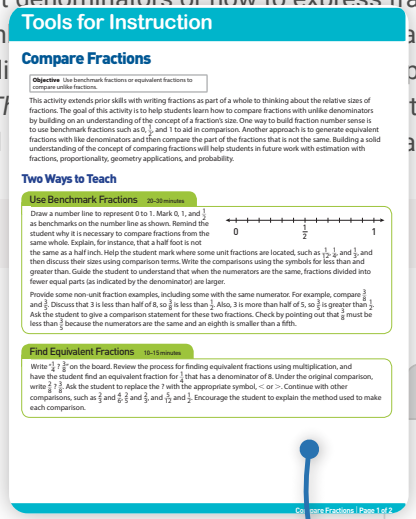
– Hide Grouping Description

Students in this Grouping are One Grade Level Below in Number and Operations or Algebra and Algebraic Thinking.

Instructional Priorities

Students in this grouping are having difficulty with skills and concepts related to quantitative reasoning. They may struggle with skills and concepts related to fractions and whole number operations, or they may struggle with algebraic concepts related to factors and multiples, or both.

Those students with a low score in Number and Operations are probably most challenged by fractions. They will need to focus on foundational fraction concepts in order to understand that a fraction is one number that represents a quantity, not just "one number over another number." They will need practice with how to compare fractions with different denominators or how to express fractions as equivalent fractions or decimals. Those students with a low score in Algebra and Algebraic Thin…anding of the relationship between factors and multiples and may be held back by lack of fluency with multipli…particularly benefit from instruction on the concepts and skills described below in the section *Algebraic Th*…to develop fluency with basic multiplication and division facts, all students in this profile are also likely to need …ary.


Tools for Instruction

Compare Fractions

Objective Use benchmark fractions or equivalent fractions to compare unlike fractions.

This activity extends prior skills with writing fractions as part of a whole to thinking about the relative sizes of fractions. The goal of this activity is to help students learn how to compare fractions with unlike denominators by building on an understanding of the concept of a fraction's size. One way to build fraction number sense is to use benchmark fractions such as 0, $\frac{1}{2}$, and 1 to aid in comparison. Another approach is to generate equivalent fractions with like denominators and then compare the part of the fractions that is not the same. Building a solid understanding of the concept of comparing fractions will help students in future work with estimation with fractions, proportionality, geometry applications, and probability.

Two Ways to Teach

Use Benchmark Fractions 20–30 minutes

Draw a number line to represent 0 to 1. Mark 0, 1, and $\frac{1}{2}$ as benchmarks on the number line as shown. Remind the student why it is necessary to compare fractions from the same whole. Explain, for instance, that a half foot is not the same as a half inch. Help the student mark where some unit fractions are located, such as $\frac{1}{3}$, $\frac{1}{6}$, and $\frac{1}{8}$, and then discuss their sizes using comparison terms. Write the comparisons using the symbols for less than and greater than. Guide the student to understand that when the numerators are the same, fractions divided into fewer equal parts (as indicated by the denominator) are larger.

Provide some non-unit fraction examples, including some with the same numerator. For example, compare $\frac{3}{8}$ and $\frac{3}{5}$. Discuss that 3 is less than half of 8, so $\frac{3}{8}$ is less than $\frac{1}{2}$. Also, 3 is more than half of 5, so $\frac{3}{5}$ is greater than $\frac{1}{2}$. Ask the student to give a comparison statement for these two fractions. Check by pointing out that $\frac{3}{8}$ must be less than $\frac{3}{5}$ because the numerators are the same and an eighth is smaller than a fifth.

Find Equivalent Fractions 10–15 minutes

Write $\frac{1}{4} ? \frac{3}{12}$ on the board. Review the process for finding equivalent fractions using multiplication, and have the student find an equivalent fraction for $\frac{1}{4}$ that has a denominator of 8. Under the original comparison, write $\frac{2}{8} ? \frac{3}{8}$. Ask the student to replace the ? with the appropriate symbol, < or >. Continue with other comparisons, such as $\frac{2}{3}$ and $\frac{2}{5}$, $\frac{2}{3}$ and $\frac{5}{6}$, and $\frac{5}{12}$ and $\frac{1}{2}$. Encourage the student to explain the method used to make each comparison.

Compare Fractions | Page 1 of 2

Recommendations for Teacher-Led Instruction

Operations

- Add and subtract multi-digit numbers.
- Multiply three-digit numbers by one-digit numbers.
- Divide three-digit numbers by one-digit numbers.

Students who struggle with operations involving regrouping in any of the four operations often lack the conceptual understanding that drives the algorithms. These students may benefit from working with concrete or visual models, or alternative algorithms, in order to focus on the place value concepts behind the process. Once students understand why the process works, they can be guided to see the relationship between the models and algorithms, and eventually use a more efficient algorithm alone.

Number–Fractions

- Decompose a fraction into a sum of fractions with like denominators.
- Compare fractions with unlike denominators.
- Write equivalent fractions, including fractions in simplest terms.
- Write fractions with denominators of 10 or 100 as decimals.

Resources

Tools for Instruction

English (21) | Spanish (21)

Number and Operations

- Add Multi-Digit Numbers
- Subtract Multi-Digit Numbers
- Multiply by One-Digit Numbers
- Divide Three-Digit by One-Digit Numbers
- Compare Fractions
- Equivalent Fractions
- Write Fractions as Decimals
- Compare Decimals to Hundredths
- Multiply by Two-Digit Numbers
- Divide Four-Digit by One-Digit Numbers
- Understand Fraction Addition and Subtraction
- Add and Subtract Fractions
- Add Tenths and Hundredths

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Mathematics Prerequisites

Prerequisites

Helps teachers strategically and efficiently prepare students for upcoming topics in grade-level Mathematics instruction and recommends resources teachers can use to address prerequisites with small groups

Subject	Class/Report Group	Grade	Topic
Math	Grade 5, Section 1	Grade 5	Fraction Operations...

i-Ready Topic Overview

Fraction Operations, Part 1

Students build on their knowledge of adding and subtracting fractions with like denominators and of equivalent fractions to learn to add and subtract fractions and mixed numbers with unlike denominators. They go on to solve word problems involving adding and subtracting fractions and mixed numbers with unlike denominators. Next students connect their understanding of division and of fractions to explore the idea of a fraction as the division of the numerator by the denominator. They use area models to represent fraction multiplication and compare to multiplying using equations to see that the products are the same.

Learning Progression

Whole Class

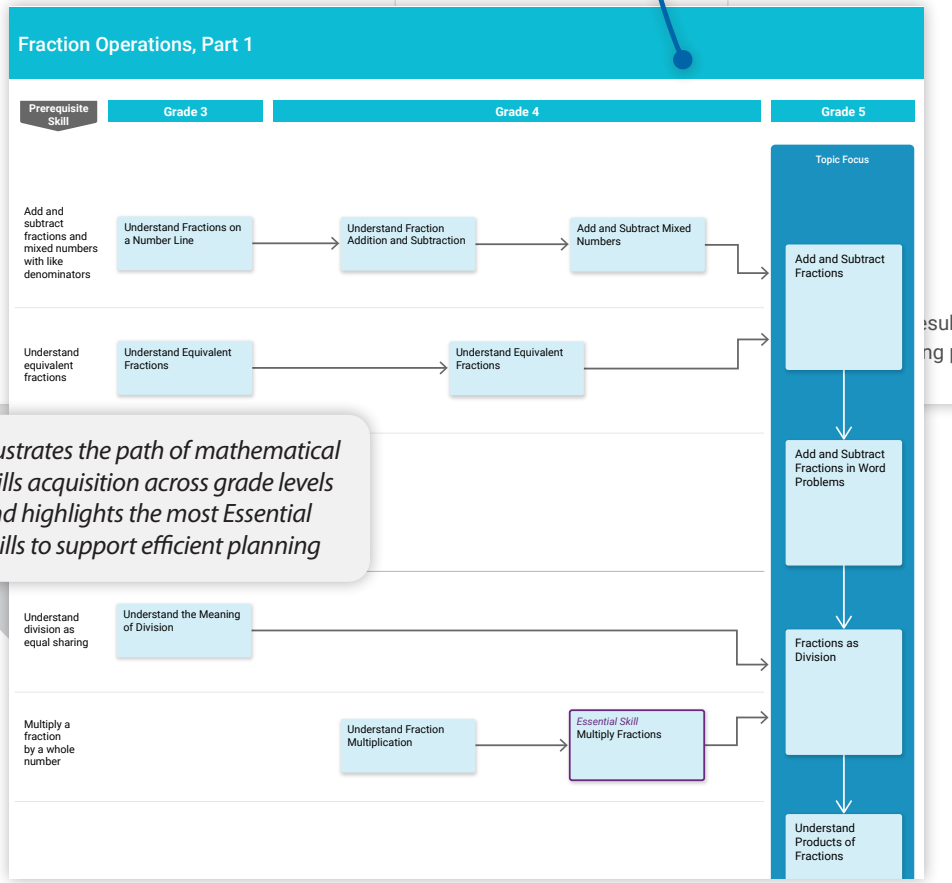
After familiarizing yourself with the needs of the students based on the data below, you may decide to address these prerequisite skills during whole class instruction.

PDF
Topic Support

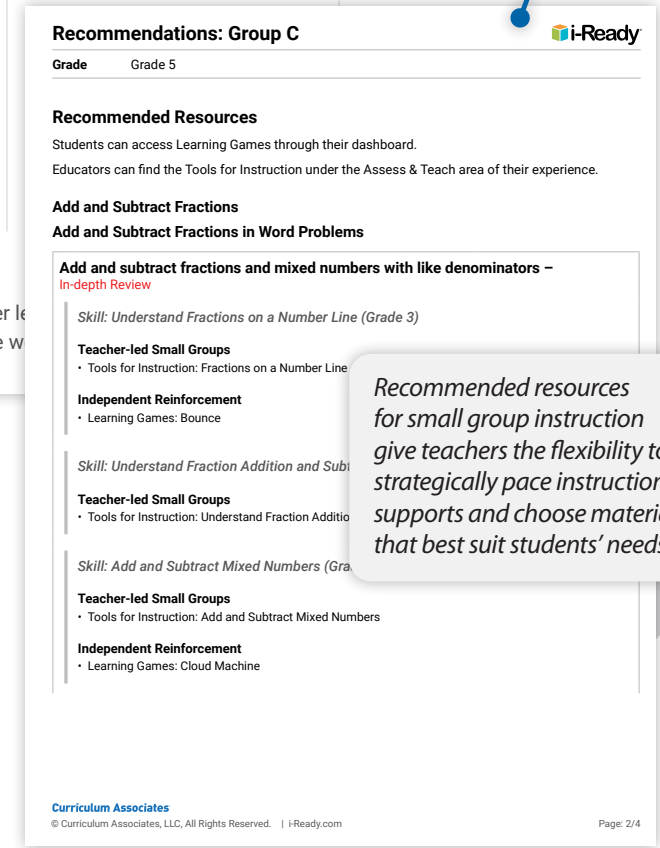
Prerequisite Groups

Prerequisites	Topic Group A 2 Students Recommendations	Topic Group B 4 Students Recommendations	Topic Group C 10 Students Recommendations	Topic Group D 4 Students Recommendations
Add and subtract fractions and mixed numbers with like denominators	✓	Additional Support	In-Depth Review	In-Depth Review
Understand equivalent fractions	✓	Additional Support	In-Depth Review	In-Depth Review

Understand division as equal sharing	✓	✓	Additional Support	In-Depth Review
Essential Skill Multiply a fraction by a whole number	✓	Additional Support	In-Depth Review	In-Depth Review
	Sanchez, Abby **Stanton, Geena**	**McDonald, Kal** **Patel, Mia** **Tan, Melanie** **Wade, Kiara**	**Baker, Danielle** **Bowers, Tara** **Choi, Isabelle** **Lowe, Noah** **Powell, Elijah**	**Cochran, Damon** **Hess, Michael** **Malone, Carla** **Simmons, Tristan**



Illustrates the path of mathematical skills acquisition across grade levels and highlights the most Essential Skills to support efficient planning



Recommendations: Group C

i-Ready

Grade Grade 5

Recommended Resources

Students can access Learning Games through their dashboard.

Educators can find the Tools for Instruction under the Assess & Teach area of their experience.

Add and Subtract Fractions

Add and Subtract Fractions in Word Problems

Add and subtract fractions and mixed numbers with like denominators –
In-depth Review

Skill: Understand Fractions on a Number Line (Grade 3)

Teacher-led Small Groups
- Tools for Instruction: Fractions on a Number Line

Independent Reinforcement
- Learning Games: Bounce

Skill: Understand Fraction Addition and Subt

Teacher-led Small Groups
- Tools for Instruction: Understand Fraction Additio

Skill: Add and Subtract Mixed Numbers (Gra

Teacher-led Small Groups
- Tools for Instruction: Add and Subtract Mixed Numbers

Independent Reinforcement
- Learning Games: Cloud Machine

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Page: 2/4

Recommended resources for small group instruction give teachers the flexibility to strategically pace instructional supports and choose materials that best suit students' needs.

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Mathematics Personalized Instruction Summary for a Student

Personalized Instruction Summary ▾ Elijah Powell ▾ Grade 5

PDF CSV

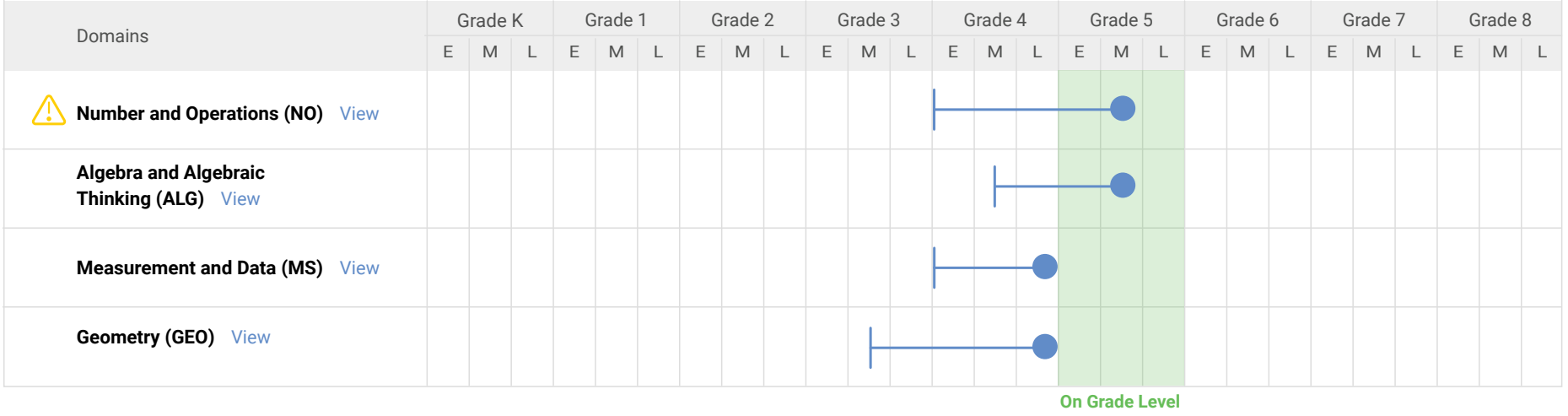
Subject: Math ▾

Date Range: All Activity ▾

Shows a student's progress through i-Ready *lessons in real time and highlights where that student is succeeding and where teachers should intervene to help students who need support*

Current & Past Lessons | Upcoming Lessons

Monitor Domain Progress



Activity Overview

Lessons Passed (YTD): **55/65 | 85%**

Total Lesson Time-on-Task (YTD): **23h 26m**

Domains	Passed/Completed	% Lessons Passed
Number and Operations (NO)	22/28	79%
Algebra and Algebraic Thinking (ALG)	22/25	88%
Measurement and Data (MS)	6/7	86%
Geometry (GEO)	5/5	100%

Lesson Time-on-Task: Year to Date
23h 26m

Last Week	Current Week

Number and Operations

Add and Subtract Decimals

Objectives:
- Add decimals to hundredths.
- Subtract decimals to hundredths.
- Use models to show how to add and subtract decimals to hundredths.

Preview | Estimated

Instruction | Quiz

Curriculum Framework for Mathematics

Focus Standard(s)

5.NBT.B.7 - Add [and] subtract . . . decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition



Showing 9 of 60

Alerts	Domains						
	Number and Operations						
	Number and Operations						
	Number and Operations						
⚠	**Number and Operations**	Mid 5	Add and Subtract Decimals	Not Passed 60%	28m	02/13/23	02/14/23
	Number and Operations	Mid 5	Add and Subtract Decimals	Not Passed 50%	34m	02/07/23	02/07/23
	Number and Operations	Mid 5	Understand Place Value	Passed 100%	29m	02/06/23	02/06/23

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Mathematics Diagnostic Growth for a Student

Diagnostic Growth ▾ **Elijah Powell** ▾ **Grade 5**

Subject

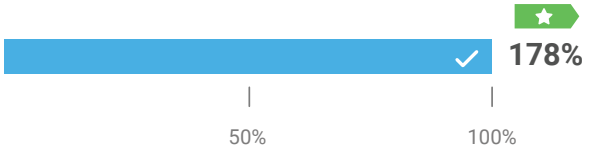
Math ▾

Gives a clear view of progress toward proficiency and annual growth expectations for each student

Year-to-Date Growth

Progress to Annual Typical Growth

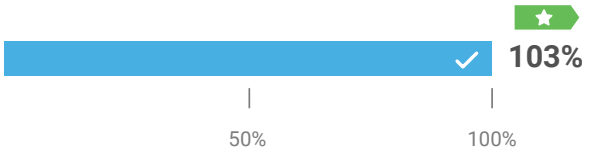
Scale Points: 32/18



This student has made 178% progress toward Annual Typical Growth. Typical Growth is the average annual growth of students at this grade and placement level on their baseline Diagnostic.

Progress to Annual Stretch Growth®

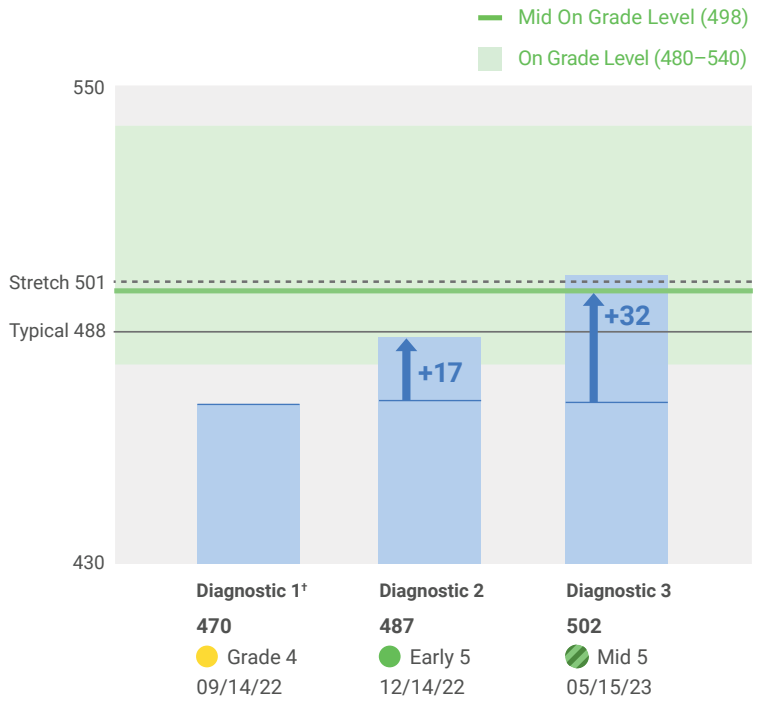
Scale Points: 32/31



This student has made 103% progress toward Stretch Growth. For students who are below grade level on their baseline Diagnostic, Stretch Growth is an ambitious, but attainable, level of annual growth that puts them on a path toward proficiency.

This student will likely need to meet or exceed their Annual Stretch Growth target for at least one year to be proficient if the student is not proficient already. This is based on students with the same baseline placement who eventually achieved proficiency. Proficient for Grade 5 is a Mid On Grade Level scale score of 498.

Overall Diagnostic Growth



†This Diagnostic is considered the baseline and is used to establish growth measures for this student.

Learn More about Growth

Placement by Domain

Domain	Diagnostic 1	Diagnostic 2	Diagnostic 3
Overall ↑	**Grade 4**	**Early 5**	**Mid 5**
Number and Operations ↑	Grade 4	Early 5	Mid 5
Algebra and Algebraic Thinking ↑	Grade 4	Grade 4	Mid 5
Measurement and Data ↑	Grade 4	Early 5	Mid 5
Geometry ↑	Grade 3	Grade 4	Early 5

↑ Placement Improved from Baseline

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Mathematics Diagnostic Growth for a Class

Diagnostic Growth

Subject: Math

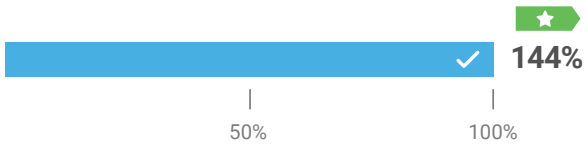
Class/Report Group: Grade 5, Section 1

Comparison Diagnostic: Diagnostic Window 3

05/01/23–06/01/23

Gives a clear view of progress toward proficiency and annual growth expectations across a class and for each student

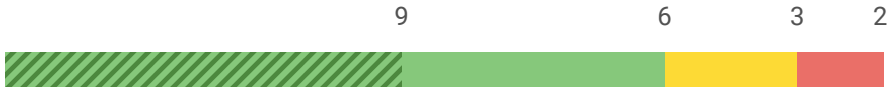
Progress to Annual Typical Growth (Median)



The median percent progress toward Typical Growth for this class is 144%. Typical Growth is the average annual growth for a student at their grade and placement level.

Learn More about Growth

Current Placement Distribution

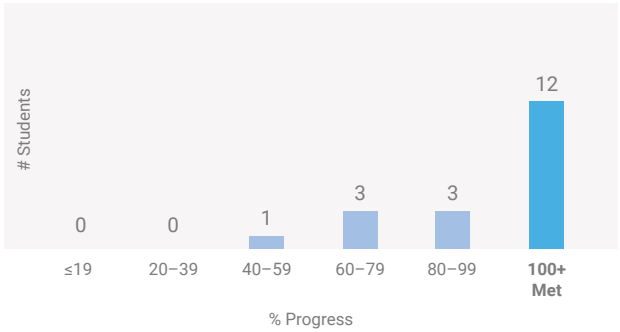


Mid or Above Grade Level	Early On Grade Level	One Grade Level Below	Two Grade Levels Below	Three or More Grade Levels Below	Not Completed
45% (From 15%)	**30%** (From 20%)	**15%** (From 50%)	**10%** (From 5%)	**0%** (From 10%)	**0%** (From 0%)

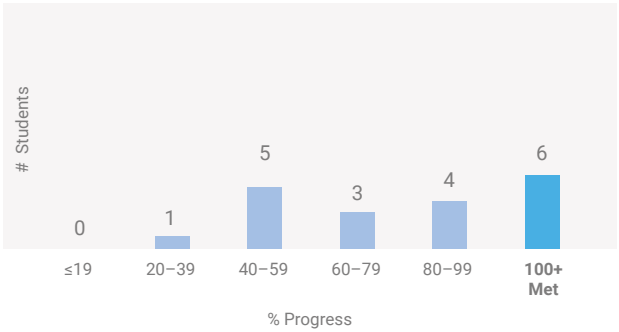
The Mapping between 5-Level and 3-Level Placements

Progress Distributions

Distribution of Progress to Annual Typical Growth



Distribution of Progress to Annual Stretch Growth®



Showing 20 of 20

Student	Annual Typical Growth		Annual Stretch Growth		Baseline Placement & Scale Score	Current Placement & Scale Score
	Percent Progress	Scale Score Progress	Percent Progress	Scale Score Progress		
Baker, Danielle	161%	29/18	94%	29/31	Grade 4 (459)	Early 5 (488)
Bowers, Tara	78%	14/18	45%	14/31	Grade 4 (472)	Early 5 (486)
Choi, Isabelle	172%	31/18	100%	31/31	Grade 4 (459)	Early 5 (490)
Cochran, Damon	85%	17/20	41%	17/41	Grade 2 (429)	Grade 3 (446)
Hess, Michael	39%	7/18	23%	7/31	Grade 4 (453)	Grade 4 (460)
Lowe, Noah	94%	17/18	55%	17/31	Grade 4 (470)	Early 5 (487)
Malone, Carla	166%	30/18	86%	30/35	Grade 3 (440)	Grade 4 (470)
McDonald, Kal	161%	29/18	100%	29/29	Early 5 (489)	Mid 5 (518)
Patel, Mia	172%	31/18	100%	31/31	Grade 4 (473)	Mid 5 (504)
Powell, Elijah	178%	32/18	103%	32/31	Grade 4 (470)	Mid 5 (502)
Ramirez, Gabriella	111%	20/18	65%	20/31	Grade 4 (472)	Early 5 (492)
Ruiz, Justin	178%	32/18	103%	32/31	Grade 4 (450)	Grade 4 (472)
Sanchez, Abby	193%	27/14	135%	27/20	Mid 5 (516)	Grade 6 (543)

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Mathematics Diagnostic Growth for a School

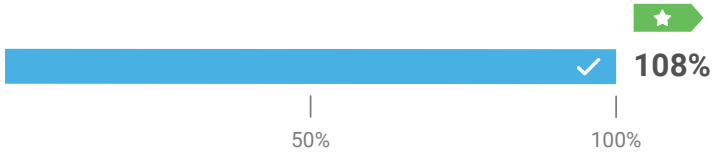
Diagnostic Growth

Subject: Math
School: Cedar Elementary
Academic Year: Current Year
Comparison Diagnostic: Diagnostic 3
05/01/23–06/01/23

Gives a clear view of progress toward proficiency and annual growth expectations across a school, grade, or class

Students Assessed/Total: **555/569**

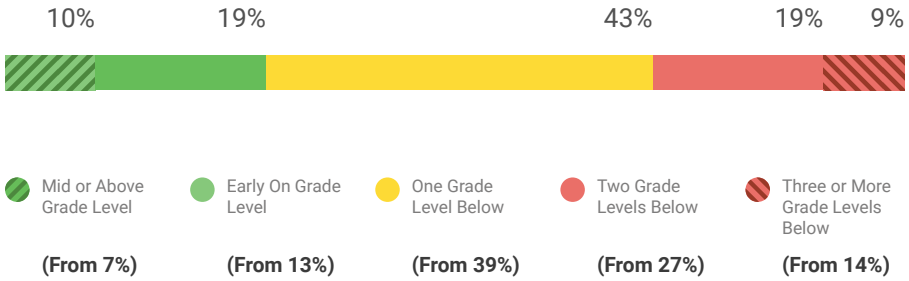
Progress to Annual Typical Growth (Median)



The median percent progress toward Typical Growth for this school is 108%. Typical Growth is the average annual growth for a student at their grade and baseline placement level.

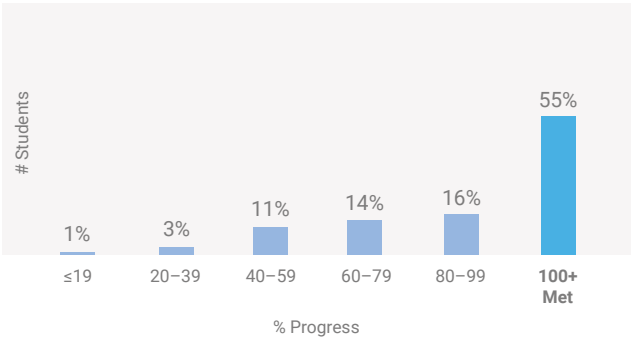
Learn More about Growth

Current Placement Distribution

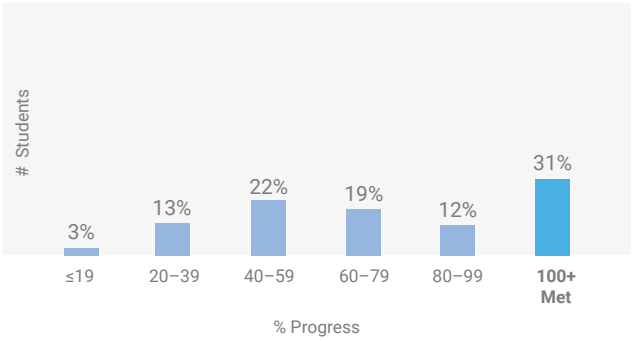


The Mapping between 5-Level and 3-Level Placements

Distribution of Progress to Annual
Typical Growth



Distribution of Progress to Annual
Stretch Growth®



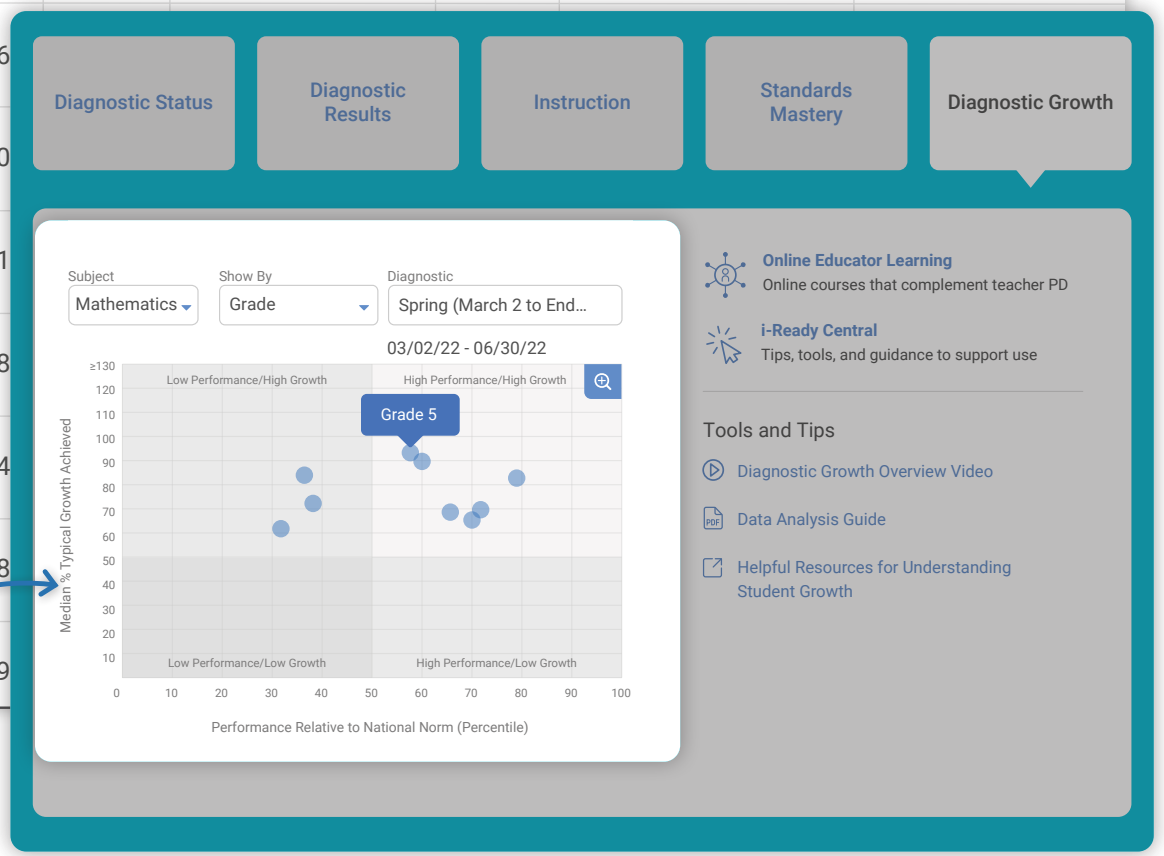
Show Results By

Grade

Showing 9 of 9

Grade	Annual Typical Growth		Annual Stretch Growth®		% Students with Improved Placement	Students Assessed/Total
	Progress (Median)	% Met	Progress (Median)	% Met		
Grade K	114%	65%	79%	35%	65%	60/60
Grade 1	107%	67%	84%	33%	30%	63/63
Grade 2	106					
Grade 3	110					
Grade 4	111					
Grade 5	108					
Grade 6	114					
Grade 7	108					
Gra	109					

*Shows how schools and grades across the district are growing and performing in a single view to inform planning and resource allocation**



*Access for school administrators and Diagnostic Window selection coming in the 2022–2023 school year

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Mathematics Diagnostic Results for a District

Comparison View

Diagnostic Results

Subject: Math

School: All Schools

Provides a comprehensive picture of student performance by school, grade, class, and district demographics, allowing administrators to set intervention strategies and make resource allocation decisions

Academic Year: Current Year

Diagnostic: Diagnostic 2 — 12/01/22–12/31/22

Prior Diagnostic: Diagnostic 1 — 08/31/22–09/30/22

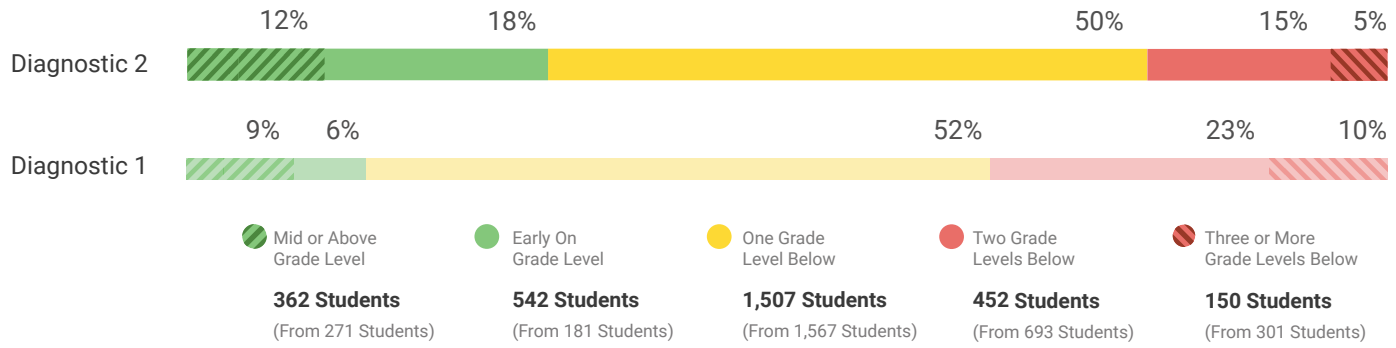
Criterion Referenced

Enhanced

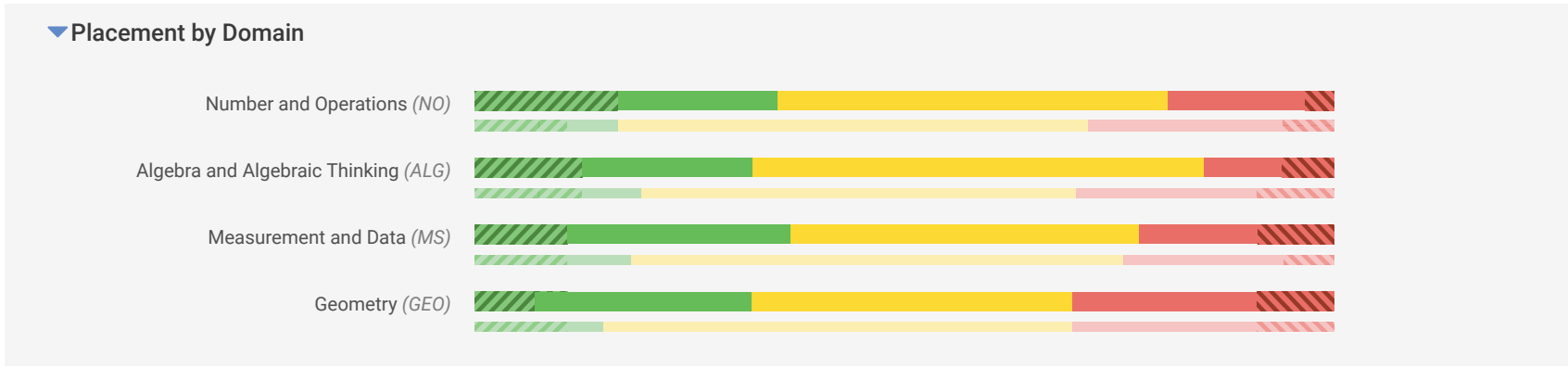
3-Level Placement | **5-Level Placement**

Overall Placement

Students Assessed/Total: **3,013/3,013**



The Mapping between 5-Level and 3-Level Placements



All School Groups > All Schools

Switch Table View

Placement Summary

*Filter results by two demographics for more precise data analysis.**

Choose to Show Results By

Sex

Secondary Demographic to Show Results By

Economically Disadvan... Remove

Showing 3 of 3

All	All		Overall Grade-Level Placement						Students Assessed/Total
Female	Yes - Economically D...	Diagnostic 2		15%	22%	43%	16%	4%	646/646
		Diagnostic 1		9%	14%	46%	22%	9%	
	No - Economically D...	Diagnostic 2		43%	19%	31%	5%	2%	1,011/1,011
		Diagnostic 1		26%	26%	33%	12%	2%	

*Enhancement coming 2022–2023 school year

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Mathematics Standards Performance for a Class

CCSS Performance

State-specific in most states!

PDF CSV

Subject: Math | Class/Report Group: Grade 5, Section 1 | Grade: 5 | Diagnostic: Diagnostic Window 1

08/31/22–09/30/22

Shows how students are performing against state standards, based on the results of each Diagnostic

Students Assessed/Total: **20/20**

Common Core State Standards for Mathematics

Grade(s) of Standards: Grade 5 to Grade 5 | Switch Table View: Skill Summary

Showing 12 of 43

Standard Code	Standard Description	✓	✓	✗
5.NBT.A.1	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	0	0	20
5.NBT.A.2	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	2	0	18
5.NBT.A.3a	Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1,000).	2	0	18
5.NBT.A.3b	Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	5	5	10
5.NBT.A.4	Use place value understanding to round decimals to any place.	2	0	18
5.NBT.B.5	Fluently multiply multi-digit whole numbers using the standard algorithm.	4	0	16

CCSS Performance

PDF CSV

Subject: Math | Class/Report Group: Grade 5, Section 1 | Grade: 5 | Diagnostic: Diagnostic Window 1 (08/31/22–09/30/22) | Key

Students Assessed/Total: **20/20**

Common Core State Standards for Mathematics

Grade(s) of Standards: Grade 5 to Grade 5 | Switch Table View: 5.NBT.A.3b

All Students Performance

✓ 5 ✓ 5 ✗ 10

Standard Description

Number and Operations in Base Ten
Understand the place value system. Read, write, and compare decimals to thousandths.

Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

Showing 20 of 20

Student	Performance	Diagnostic Language	Date
McDonald, Kal	✓		09/20/22
Patel, Mia	✓		09/20/22
Ramirez, Gabriella	✓		09/20/22
Sanchez, Abby	✓		09/20/22
Stanton, Geena	✓		09/20/22

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Mathematics Standards Mastery Results by Test for a Class Item Analysis View

Standards Mastery Results by Test

Subject: Math | Class/Report Group: Grade 5, Section 1 | Assessment: Grade 5 Fractions

Shows student performance on recently taught standards to inform reteaching, down to the question level

Students Completed/Assigned: **16/19** Students Unassigned: **1**

Skills Summary

3 Skills Assigned

Standards	Skill	Performance Distribution	Avg. Score	Resources
5.NF.A.1	Equivalent Fractions		72%	
5.NF.A.2	Compare Two Fractions		43%	
5.NF.B.4.A... +(1)	Understand Fraction Addition and Subtraction		38%	

Assessment Summary

46% Average Assessment Score

3	6	7
Proficient	Progressing	Beginning

5.NF.A.1 — Use dropdown to view Skill Summary

View Assessment | Key

Showing 20 of 20

Student	Assessment Score	Skill Score	1	2	3	4A	4B	5
Class Summary	51%	72%	85%	80%	76%	64%	43%	50%
Sanchez, Abby	87%	100%						
Choi, Isabella	80%	75%						
Baker, Danielle	79%	80%						
Lowe, Noah	78%	80%						
Bowers, Tara	73%	80%						
Warren, Santino	70%	75%						
Patel, Mia	58%	61%						
Powell, Elijah	58%	71%						
Malone, Carla	46%	57%						
Vo, Isaiah	41%	69%						
Ramirez, Gabriella	32%	36%						
Tan, Melanie	30%	36%						
Ruiz, Justin	27%	30%						

i-Ready Standards Mastery: Differentiated Instructional Support

i-Ready

Add and Subtract Fractions with Unlike Denominators

Standards

5.NF.A.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example,* $\frac{2}{3}+\frac{5}{4}=\frac{8}{12}+\frac{15}{12}=\frac{23}{12}$. *(In general,* $\frac{a}{b}+\frac{c}{d}=\frac{ad+bc}{bd}$.*)*

Prerequisite Standards

3.NF.A.1 Understand a fraction $\frac{1}{b}$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.

4.NF.B.3c Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.

4.NF.B.3d Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.

Overview of Tested Skills

Problems on this assessment form require students to be able to find sums or differences of fractions or mixed numbers with unlike denominators by using equivalent fractions to rewrite them as sums or differences with like denominators, and by drawing area models or number lines to represent the sums or differences. Students will also need to be familiar with multiplying whole numbers, adding and subtracting fractions and mixed numbers with like denominators, reading measurements shown in inches, and writing fractions greater than 1 as both mixed numbers and improper fractions.

Common Misconceptions and Errors

Misconceptions and errors may result if students don't understand how to write a mixed number as a fraction greater than 1, how to find a common denominator, or how to find equivalent fractions.

Errors may also result if students:

- do not multiply each numerator by the factor used to create the common denominator.
- add the numerators and add the denominators.
- add instead of subtracting, or vice versa.
- make a basic multiplication fact error.
- find a common denominator, but then add or subtract the original numerators, instead of subtracting the numerators of equivalent fractions.

Ready & i-Ready Instructional Resources

Consider using the following as additional instructional resources for students who have placed on or above level in Number and Operations and Algebra and Algebraic Thinking. See additional recommendations on page 2 for students performing below grade level.

Beginning

Focus: Developing Underlying Concepts

Help students remember how to find equivalent fractions by multiplying the numerator and denominator of a fraction by the same number. Discuss how students can use equivalent fractions to make same-size parts that can then be added or subtracted. Then help students use equivalent fractions to find common denominators before adding or subtracting fractions.

Teacher-led Small Group

Toolbox: Ready Instruction
Grade 5, Lesson 10
- Add and Subtract Fractions

i-Ready: Tools for Instruction
Number and Operations, Level 5
- Add and Subtract Unlike Fractions and Mixed Numbers

Toolbox: Interactive Tutorial
Grade 5, Lesson 10
- Add and Subtract Fractions

Student-led Small Group

Toolbox: Center Activities
Grade 5, Lesson 10
- 5.21 ★Add and Subtract Fractions

Progressing

Focus: Practice and Building Confidence

Help students pay careful attention to the words and the numbers in each problem. Build confidence with independent practice with rewriting sums or differences of fractions with unlike denominators as sums or differences with like denominators.

Independent

Toolbox: Ready Practice and Problem Solving
Grade 5, Lesson 10
- Add and Subtract Fractions

i-Ready: Instruction
Level E
- Add and Subtract Fractions

Student-led Small Group

Toolbox: Center Activities
Grade 5, Lesson 10
- 5.21 ★★Add and Subtract Fractions

Proficient

Focus: Deepening Understanding

Encourage students to deepen their understanding of fraction addition and subtraction by finding multiple ways to rewrite sums and differences of fractions.

Student-led Small Group

Toolbox: Center Activities
Grade 5, Lesson 10
- 5.21 ★★★Add and Subtract Fractions

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Standards Mastery Results

Offers detailed, student-level item analysis and suggested resources for addressing gaps and reteaching grade-level standards at the district, school, and class level

School	CEDAR ELEMENTARY
Subject	Mathematics
Student	Powell, Elijah
Student ID	013189
Student Grade	5
Assessment	Grade 5 Mathematics 5.NF.A.1: Add and Subtract Fractions With Unlike Denominators
Score	36%
Completion Date	11/10/22

Use this report to review a student's results on a Standards Mastery assessment. Review the student's responses and common misconceptions for each wrong answer.

Item 1

0/1 point

Max has $3\frac{5}{6}$ pounds of potting soil. She uses $2\frac{3}{8}$ pounds to fill a pot. How many pounds of potting soil does Max have left?

- ◉ $1\frac{2}{24}$ pounds ✗
- ○ $1\frac{1}{3}$ pounds
- ○ $1\frac{11}{24}$ pounds ✓
- ○ $1\frac{1}{2}$ pounds

Incorrect: Students may have chosen this response because they found a common denominator for the two fractions but they subtracted the original numerators.

Item 2

1/1 point

Heidi has $2\frac{5}{6}$ cups of frozen blueberries and $1\frac{1}{3}$ cups of fresh blueberries. Does she have enough blueberries to make a recipe that uses 4 cups of blueberries?

Use the drop-down menus to explain your answer.

Heidi 1 has enough blueberries. She has 2 four and one-sixth cups of blueberries, which is 3 more than she needs for the recipe.

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Mathematics Growth Monitoring Results for a Student

Growth Monitoring Results ▾ **Elijah Powell** ▾ **Grade 5**

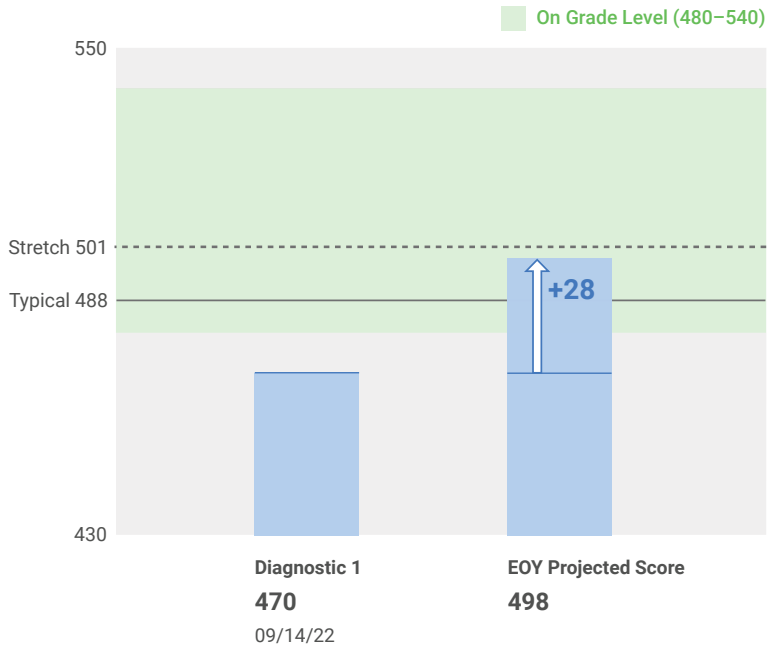
Subject

Math ▾

Projects student's likelihood of meeting growth and proficiency targets by the end of the year with data from the Diagnostic and Growth Monitoring assessments.

Also available for Reading

Student Growth Monitoring Report



Initial Scale Score: **470** EOY Projected Growth: **+28**

	Likelihood of Meeting 100% Growth by EOY	Projected Growth/ Growth Measure
Typical Growth	Somewhat Likely 50–70% Probable	+28/18
Stretch Growth®	Somewhat Unlikely <50% Probable	+28/31
Mid On Grade or Above	Somewhat Unlikely <50% Probable	+28/28

Supporting Data

Test Date	Test Type	Scale Score	Standard Error
09/14/22	Diagnostic*	470	+/- 12
10/12/22	Growth Monitoring	473	+/- 18
11/05/22	Growth Monitoring	476	+/- 18

*This Diagnostic was designated as the baseline Diagnostic for this student and was used to establish Typical Growth and Stretch Growth measures.

Learn More about Growth Monitoring

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For Families

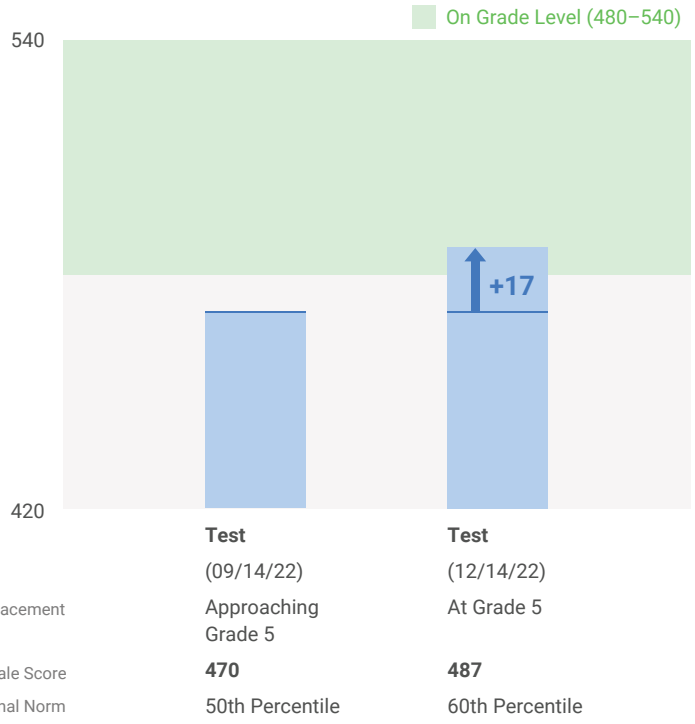
School	Cyprus Elementary
Subject	Math
Student	Elijah Powell
Student ID	ElPowell4896
Student Grade	5

Uses accessible terminology and helpful context to share student progress and celebrate growth with families—available in English and Spanish

Also available for Reading

What is i-Ready? i-Ready is an online learning program focused on reading and math. Elijah has recently taken an i-Ready assessment at school. This report gives you a snapshot of your child's performance. For more information about i-Ready, visit i-Ready.com/FamilyCenter.

Elijah's Overall Math Performance



Domain	Test (09/14/22)	Test (12/14/22)
Overall	**Approaching Grade 5**	**At Grade 5**
Number and Operations	Approaching Grade 5	At Grade 5
Algebra and Algebraic Thinking	Approaching Grade 5	At Grade 5
Measurement and Data	Approaching Grade 5	At Grade 5
Geometry	Needs Improvement	Approaching Grade 5

Additional Suggestions

Discuss these results with your child

Celebrate their strengths and progress and collaborate with them on planning how they will reach their goals.

Reach out to the teacher

Ask your student's teacher for additional insight into Elijah's progress and to get ideas and resources to support your student's learning at home.

Understanding Key Terms

Placement Levels are used to guide instruction in the classroom. Placement Levels are based on Elijah's level of performance overall and on each subtest, and they describe the

The four possible placement levels a

- Above Grade Level
- At Grade Level
- Approaching Grade Level
- Needs Improvement

Scale Scores provide a single, consistent way to measure growth across grade levels and domains. You can use a scale score to compare a

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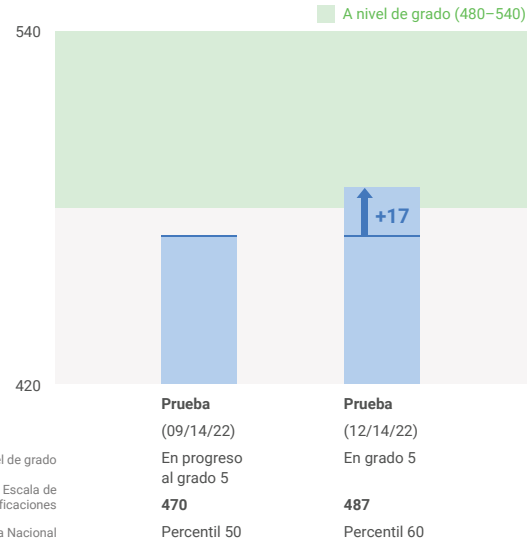
Informe Para La Familia

i-Ready

Escuela	Cyprus Elementary
Materia	Matemáticas
Estudiante	Elijah Powell
Identificación del estudiante	ElPowell4896
Estudiante grado	5

¿Qué es i-Ready? i-Ready es un programa de aprendizaje en línea que se enfoca en lectura y matemáticas. Recientemente Elijah tomó una evaluación de i-Ready en su escuela. Dicha evaluación fue presentada en inglés. Este informe le ofrece un panorama general del desempeño de su hijo o hija. Para más información sobre i-Ready, visite i-Ready.com/FamilyCenter-es.

Desempeño general de Elijah en matemáticas



Dominio	Prueba (09/14/22)	Prueba (12/14/22)
Desempeño general	**En progreso al grado 5**	**En grado 5**
Números y operaciones	En progreso al grado 5	En grado 5
Álgebra y pensamiento algebraico	En progreso al grado 5	En grado 5
Medición y datos	En progreso al grado 5	En grado 5
Geometría	Necesita mejorar	En progresso al grado 5

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Mathematics Historical Results for a Student

Historical Results ▾ **Danielle Baker** ▾ **Grade 5**

PDF | CSV (2) ▾

Subject

Math ▾

Key

Provides an overview of Diagnostic scores and placements, growth progress, and lesson data for up to three of the most recent academic years

Also available in Reading and at the class level

Grade 2 2019–2020 | **Grade 3** 2020–2021 | **Grade 4** 2021–2022

2021–2022 Diagnostic Performance Summary (Grade 4)

	Diagnostic 1 *09/14/21*	Diagnostic 2 *01/21/22*	Diagnostic 3 *05/22/22*
Diagnostic Growth			
Progress to Typical Growth ⓘ	–	17/23 (74%)	31/23 (135%)
Progress to Stretch Growth® ⓘ	–	17/34 (50%)	31/34 (91%)
Overall Placement			
Placement & Scale Score ↑	Grade 3 (447) Standard Error +/- 6	Grade 3 (464) Standard Error +/- 6	Early 4 (478) Standard Error +/- 6

Placement by Domain

Number and Operations ↑	Grade 3	Grade 3	Mid 4
Algebra and Algebraic Thinking ↑	Grade 3	Early 4	Early 4
Measurement and Data ↑	Grade 3	Mid 4	Mid 4
Geometry ↑	Grade 2	Grade 3	Grade 3

↑ Placement Improved from Baseline

2021–2022 Personalized Instruction Activity Summary (Grade 4)

Lessons Passed/Completed: **37/49** % Lessons Passed: **76%** Total Lesson Time-on-Task: **22h 38m**

Domain	Lessons Passed/Completed	% Lessons Passed
Number and Operations	24/32	75%
Algebra and Algebraic Thinking	6/8	75%
Measurement and Data	5/6	83%
Geometry	2/3	67%

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i-Ready Assessment

Assess with Purpose

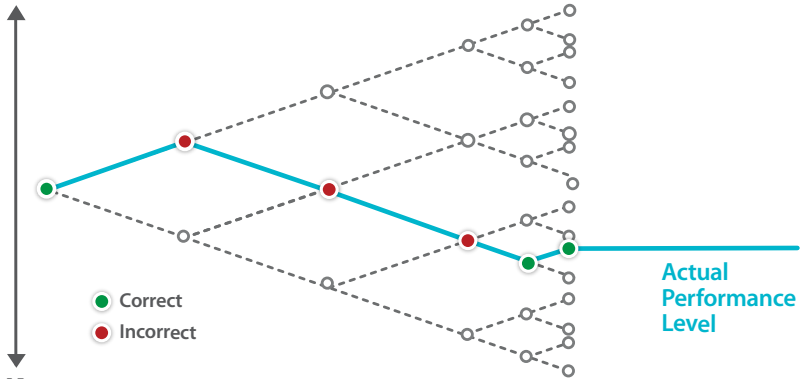
i-Ready Assessment is designed to illuminate student learning with a full suite of thoughtful, research-backed measures of student performance, including an adaptive Diagnostic, monthly growth monitoring, flexible Standards Mastery assessments, and Literacy Tasks. For each assessment, intuitive reports offer accurate, actionable data to help teachers make more informed decisions about whole class, small group, and individual instruction.

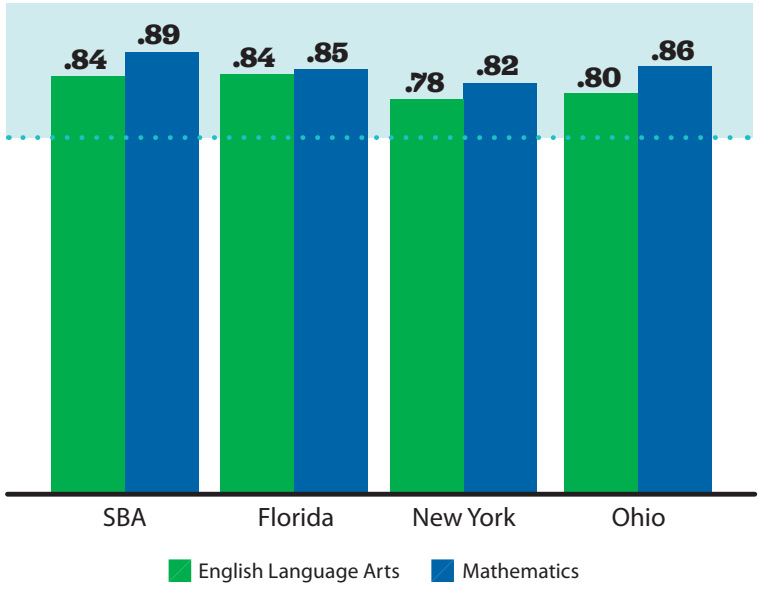


One Measure to Know More: *i-Ready Diagnostic*

Adaptive Is Better

By adapting to student responses and assessing a broad range of skills—including skills above and below a student's chronological grade—the *i-Ready Diagnostic* pinpoints a student's proficiency level and identifies the specific skills students need to learn to accelerate their growth.





Highly Correlated with State Tests

Recent research shows *i-Ready Diagnostic* is highly correlated with Smarter Balanced Assessment (SBA) and many state assessments.

For more states, visit CurriculumAssociates.com/Research.

Goals to Get to Grade Level

i-Ready's criterion-referenced placements help educators understand student performance relative to grade level, which helps achieve the goal of getting students to grade-level proficiency. The *i-Ready* growth model helps educators set ambitious yet attainable goals to put students on a path toward proficiency. *i-Ready*'s reports show student performance through:

- **Clear Grade-Level Expectations:** Reaching grade-level proficiency means getting above the Mid On Grade Level line.
- **Typical Growth:** The average annual growth for a student at this grade and starting placement level
- **Stretch Growth:** An ambitious but attainable level of annual growth that puts students who are not yet proficient on a path toward proficiency and helps students who are already on track for proficiency to achieve or maintain advanced proficiency levels



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i-Ready Assessment

Quality Results Start with Quality Items

i-Ready Assessment items are built by design to measure college- and career-readiness standards. Students using *i-Ready* can effectively demonstrate skills and their proficiency with state content standards while building comfort and familiarity with item types like the ones seen on state tests.



Examples of Tech-Enhanced Item Types Include:

Innovative Items: Drag-and-drop; dropdown; multi-select; text highlighting

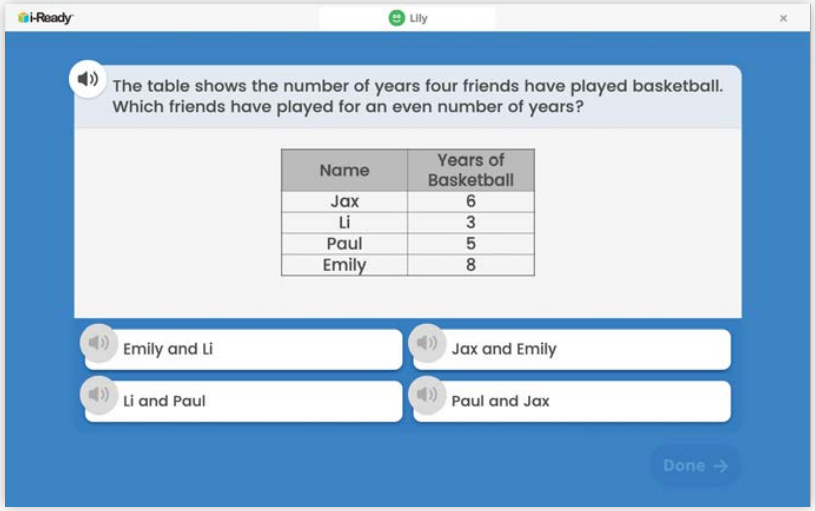
Traditional Multiple Choice with Virtual Tools: Ruler; protractor; number pad; ten-frame counter; unit square and cubes; base-ten blocks

Constructed Response: Short, open-ended response; graphing using tools; modeling using tools; equation builders; plotting on number lines

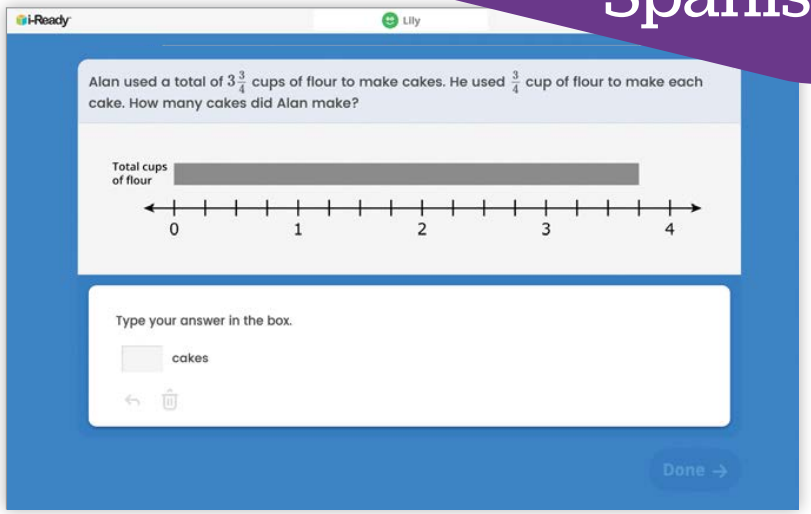


Mathematics

Diagnostic for Mathematics available in **Spanish**

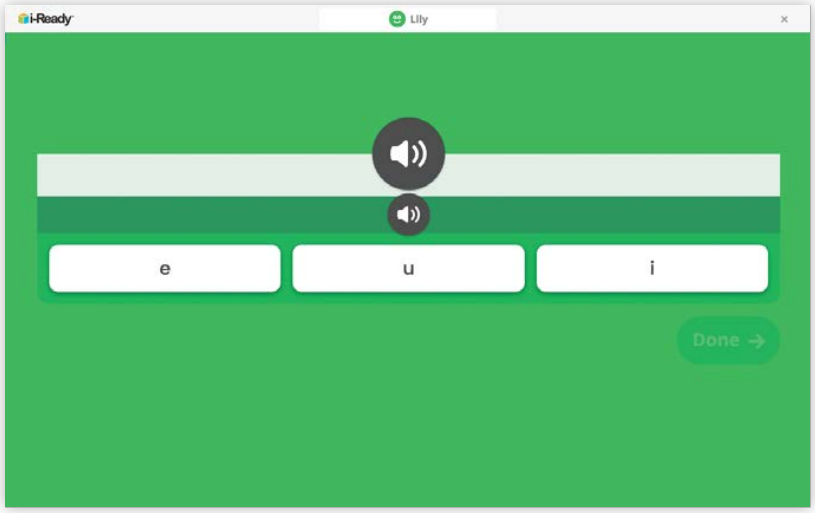


Grade 2—Algebra and Algebraic Thinking

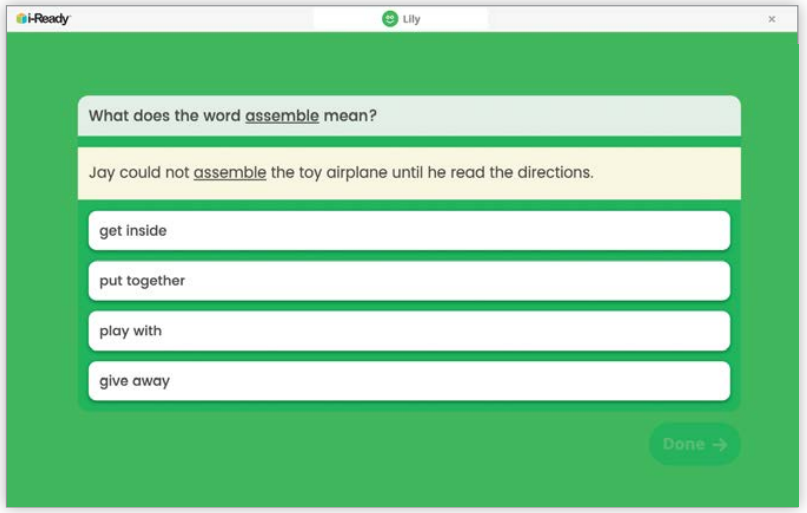


Grade 6—Number and Operations

Reading



Grade K—Phonics



Grade 4—Vocabulary

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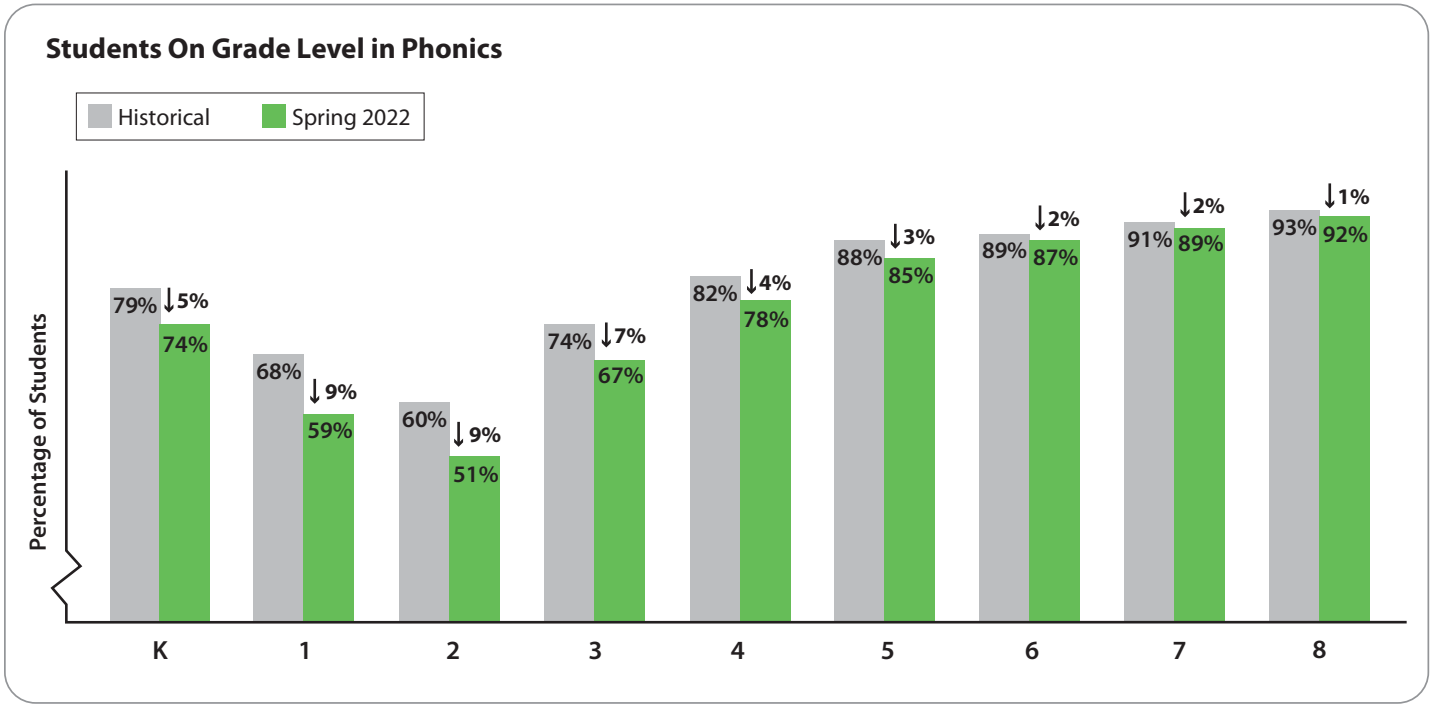
i-Ready Assessment



Committed to the Science of Reading

Rooted in the belief that all children can become skilled readers and that the best way to get them there is evidence-based, systematic, and explicit literacy instruction, *i-Ready Assessment* and Personalized Instruction work together to lead every child to reading success.

% of Students Who Are On Grade Level in Phonics



Now More Than Ever, Students Need Support in the Foundational Skills

Results from spring 2022 showed that fewer students are on grade level in foundational reading skills, particularly in Grades K–3.

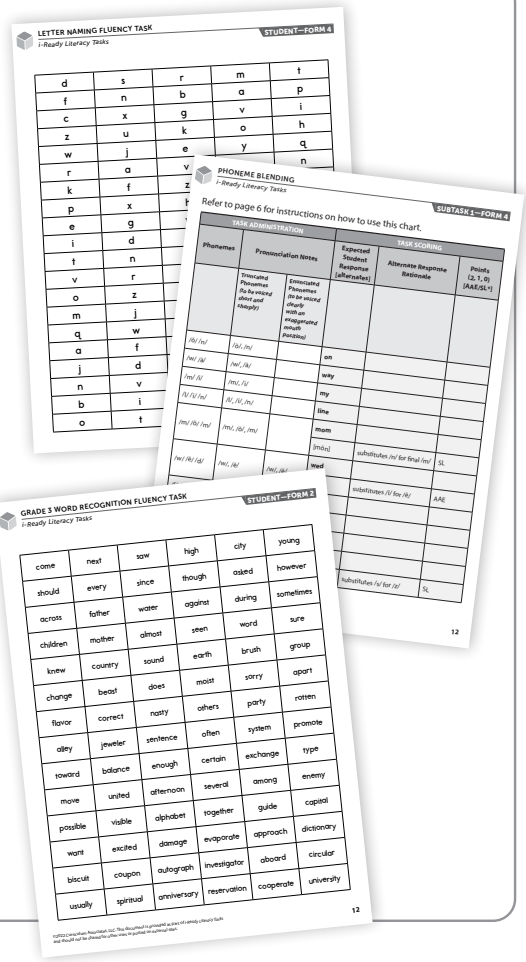
Literacy Tasks for All Five Components of Reading

i-Ready helps students strengthen the skills they need to become fluent readers through explicit, systematic instruction that is grounded in the Science of Reading. The *i-Ready Literacy Tasks* allow for an even more targeted understanding of the reading skills of students who may need further evaluation.

Used to complement the *i-Ready Diagnostic* for Reading, these tasks offer developmentally appropriate reading tasks in foundational and other critical reading skills, including:

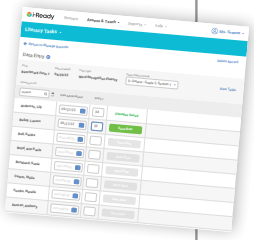
- Rapid Automatized Naming (RAN)
- Phonological Awareness
- Letter Naming Fluency
- Letter Sound Fluency
- Word Recognition Fluency (i.e., word reading fluency)
- Pseudoword Decoding Fluency (i.e., nonsense word fluency)
- Passage Reading Fluency (i.e., oral reading fluency)
- Spelling and Encoding Skills

i-Ready Literacy Tasks provide educators with both Benchmark and Progress Monitoring sets of tasks to help inform instruction.



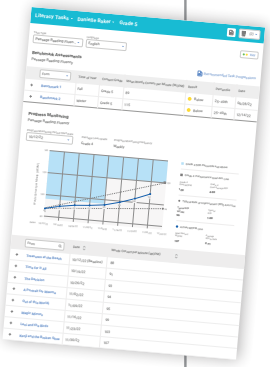
Integrated Data Entry

Record scores from offline tasks in *i-Ready Connect*™ with easy-to-use data entry forms.



Intuitive Reporting

View data in *i-Ready Connect* to determine the targeted reading instruction your students need. Some reports and exports will be available later in the 2022–2023 school year.



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i-Ready Learning

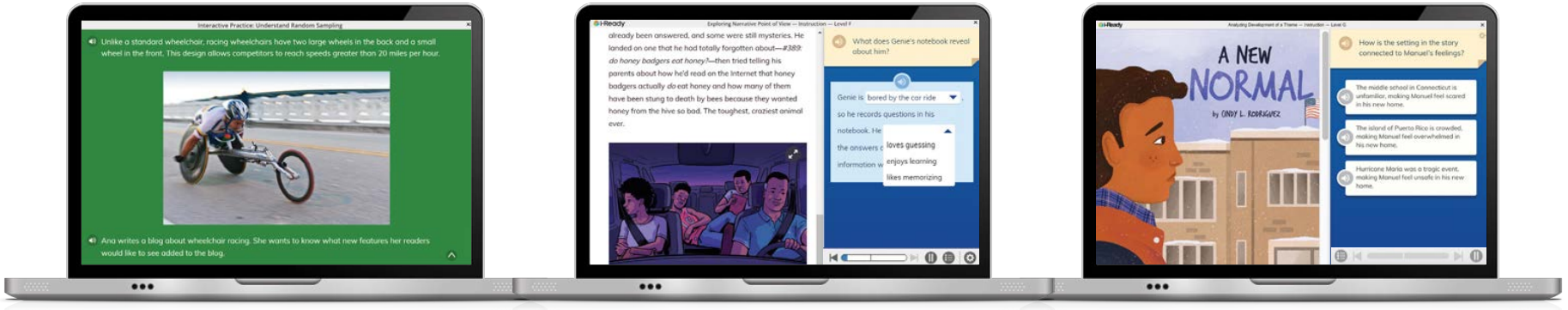
Every Student Can Reach a Higher Bar with the Right Instruction



i-Ready Personalized Instruction delivers powerful online lessons that motivate students on their path to proficiency and growth. Driven by insights from the *i-Ready Diagnostic*, *i-Ready*'s lessons for Grades K–8 provide tailored instruction that meets students where they are in their learning journey and encourages them as they develop new skills.

Personalized Instruction

Each lesson is developed using research-based principles to provide engaging instruction and practice that supports each student as they dive into challenging material carefully selected to encourage productive struggle and ignite growth.



Built based on cutting-edge research into effective online learning practices, *i-Ready*'s online lessons adapt to each student's needs through responsive instruction and engage students across a range of ages.

Students are encouraged to do, not listen passively, while making real-world connections and understanding the "why" behind the "how."

Lessons feature culturally relevant, rigorous texts and embedded strategic scaffolds, like supportive feedback that motivates students to persist in both text and task and offers particular benefits to English Learners.

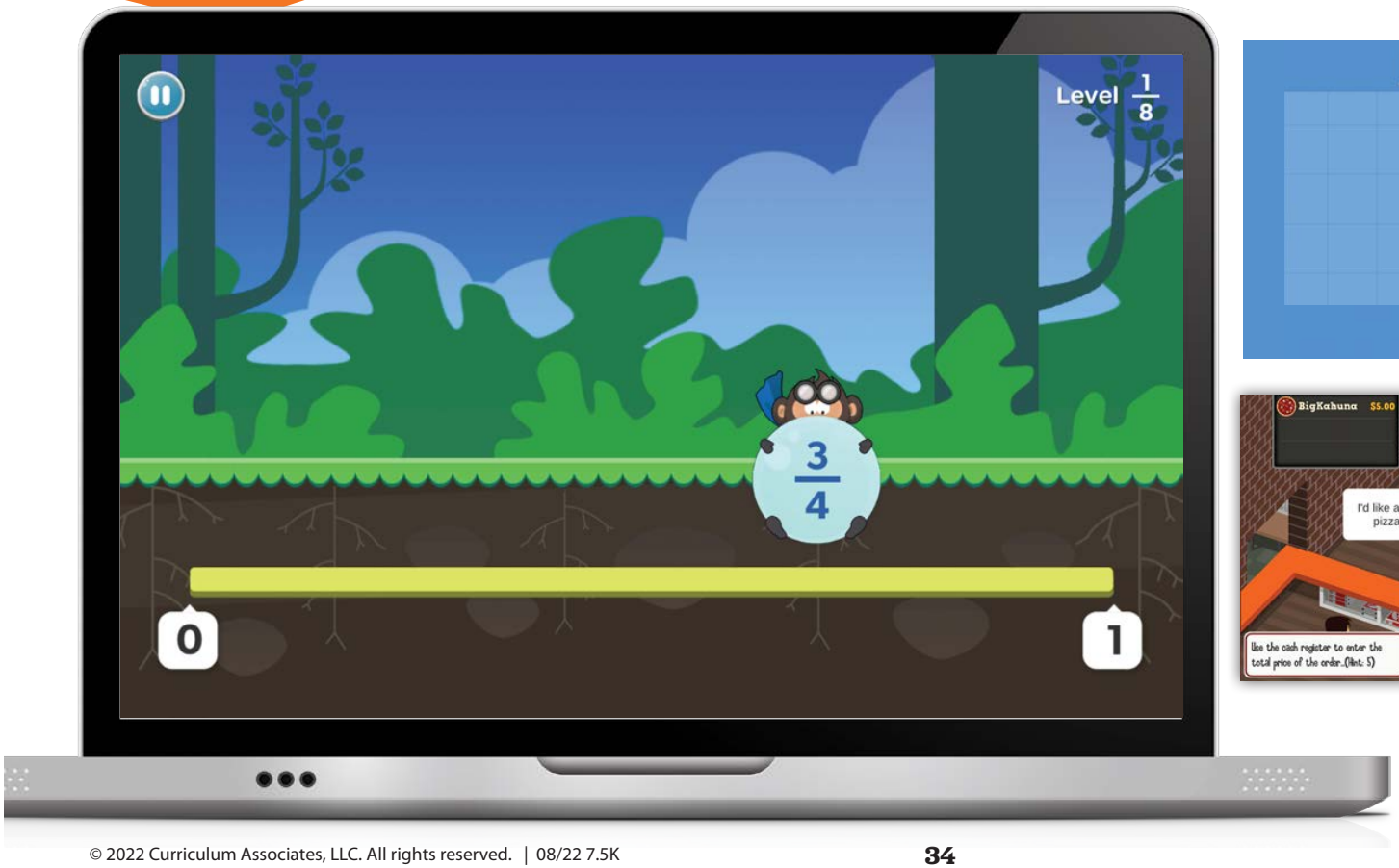


Learning Games (Grades K–8, Mathematics)

Fun and Engaging Math Practice Personalized for Your Students

i-Ready's interactive Learning Games provide engaging mathematics practice that strengthens understanding of mathematical concepts and fosters a positive relationship to challenging elementary standards. Teachers are provided real-time snapshots of student performance, including skills progress and growth mindset.

Also available in Spanish



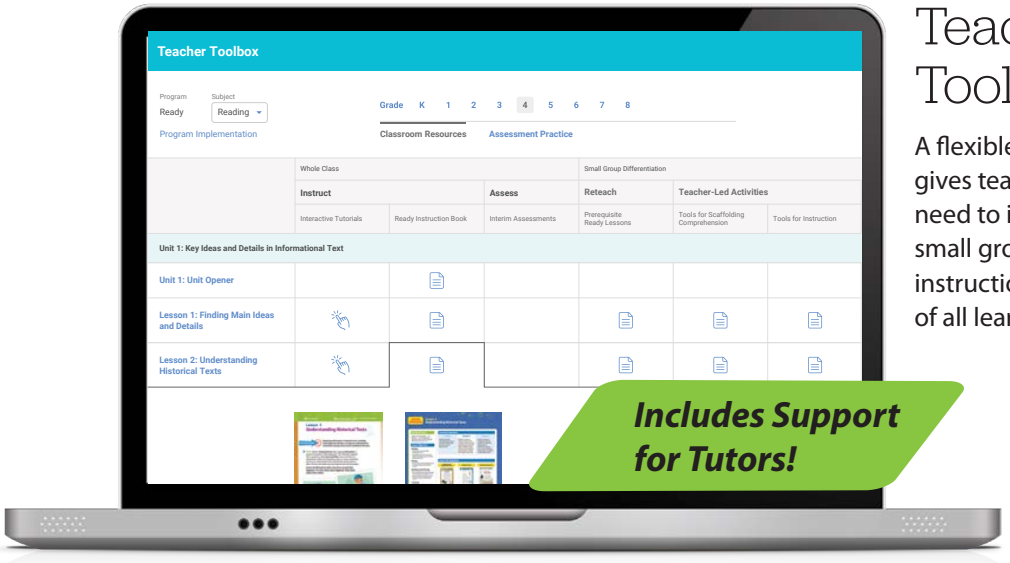




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i-Ready Learning

Instruction Driven by Teachers, Tailored for Students



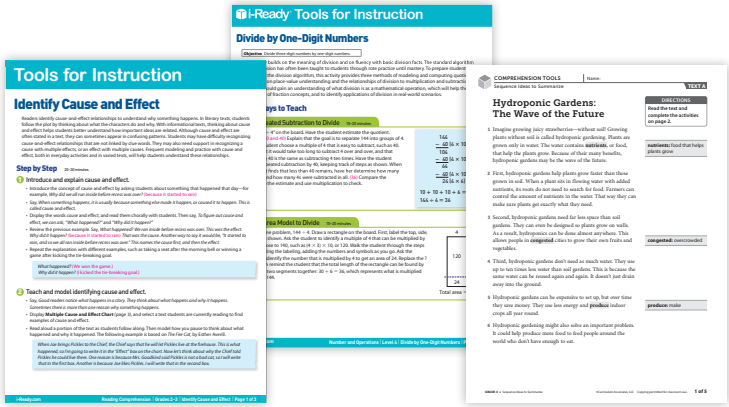
Teacher Toolbox

A flexible digital collection that gives teachers the tools they need to implement whole class, small group, and individualized instruction that meets the needs of all learners



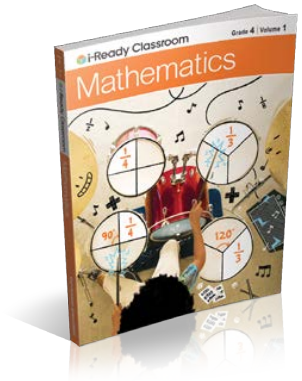
Tools for Instruction and Tools for Scaffolding Comprehension

Targeted, actionable instruction based on student needs identified by the *i-Ready Diagnostic*



Proven Teacher-Led Programs

i-Ready works seamlessly with our proven supplemental and core instructional programs, providing recommendations for differentiated instruction and effective teaching of grade-level materials.



Core Mathematics Instruction

i-Ready Classroom Mathematics is a comprehensive core mathematics program for Grades K–8 that uses mathematical discourse and rigorous practice opportunities to help students take ownership of their learning.



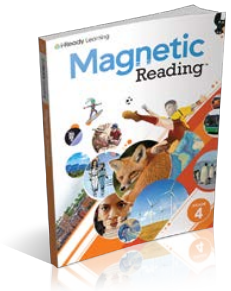
Mathematics, Reading, and Writing Instruction

Ready programs support teachers in differentiating instruction for small groups and individuals, enabling all students to receive the instruction they need to build their confidence and help them grow.



Foundational Reading Instruction

Magnetic Reading Foundations is a comprehensive foundational skills program for Grades K–2 that includes everything educators need to deliver explicit, systematic foundational skills instruction for students to become confident and skilled readers.



Reading Comprehension Instruction

Magnetic Reading is a reading comprehension program for Grades 3–5 that builds knowledge, scaffolds instruction to support all learners, and uses actionable data to help teachers support student learning. Built in partnership with the Johns Hopkins Institute for Education Policy.



New Edition Coming in 2024!

Phonics Intervention for Striving Readers

Authored by reading expert Dr. Anita Archer, *PHONICS for Reading* is a systematic, research-based intervention program that helps students in Grades 3–12 rapidly build the skills they need to become fluent, independent readers.

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i-Ready en Español: Bringing the Power of *i-Ready* to Dual-Language and Bilingual Classrooms



Our Spanish-language components are designed to support students from a broad spectrum of learning backgrounds, experiences, and communities, recognizing the linguistic and cultural assets they bring to the classroom. Our assessments and instruction can help all learners striving for biliteracy in Spanish and English achieve their academic goals.

Mathematics

Diagnostic for Mathematics (Grades K–12)

Personalized Instruction (Grades K–8)

Tools for Instruction (Grades K–8)

Learning Games (Grades K–8)

Reading

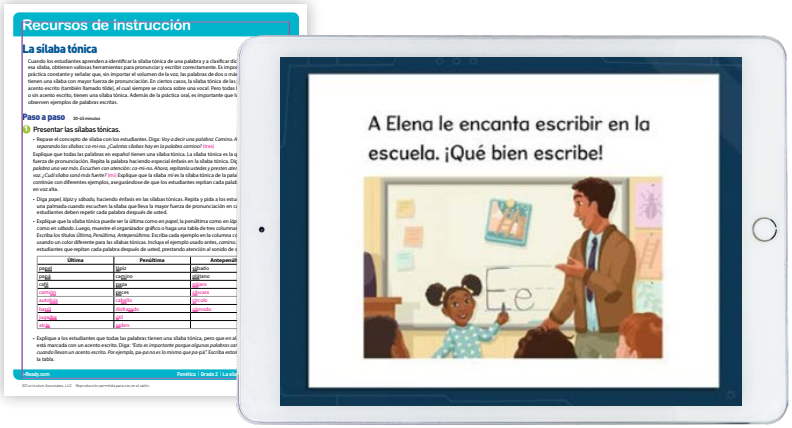
Assessment of Spanish Reading (Grades K–6)

Personalized Instruction (Grades K–5)

Tools for Instruction (Grades K–6)

Literacy Tasks (Grades K–6)





Assessment of Spanish Reading

Did you know . . .

Shows student reading proficiency in Spanish against grade-level standards

Subject: **Reading**

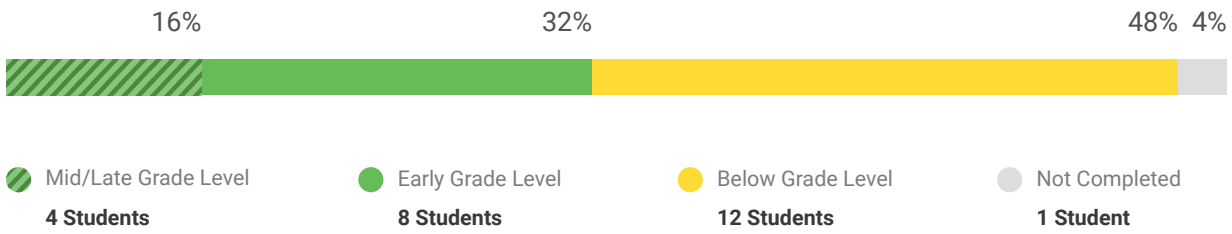
Class/Report Group: All Reading Students

Assessment Grade: 1

Window: Beginning of Year

Overall Spanish Placement

Students Assessed/Total: **25/30**



See Tools for Instruction for More Resources

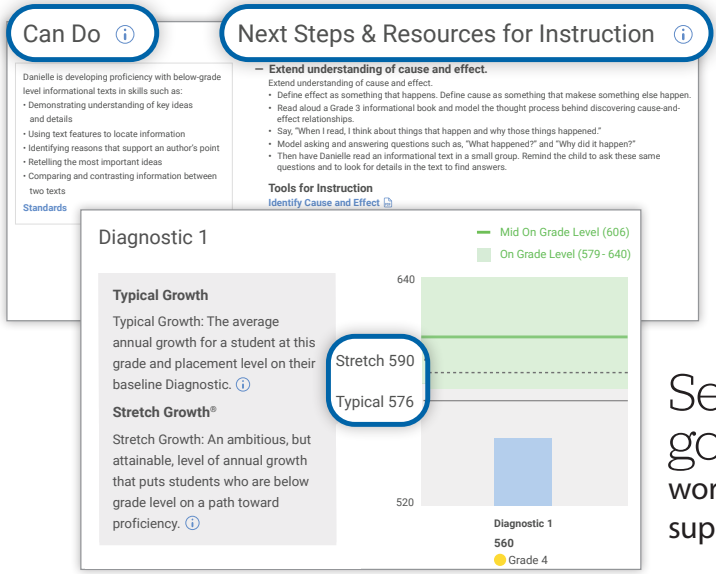
Showing 30 of 30

Completed: 24 | In Progress: 1 | Not Started: 0 | Unassigned: 5

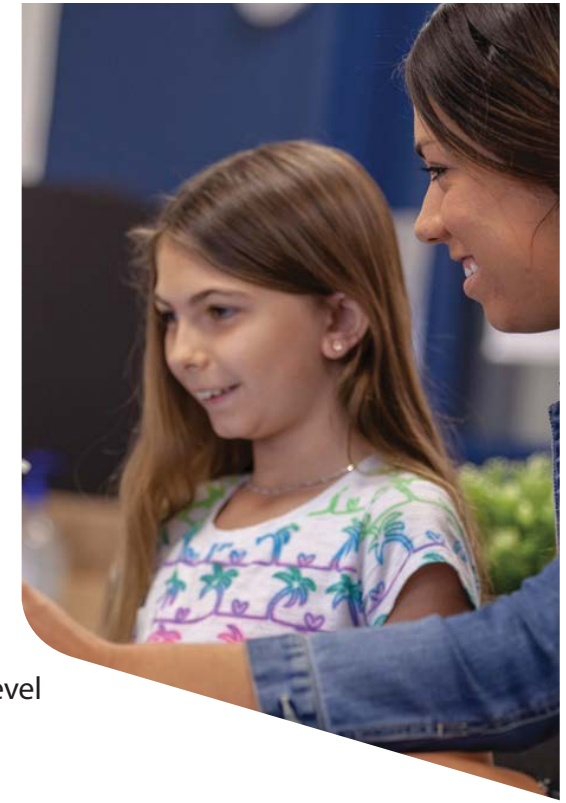
Student Name	Status	Overall Spanish Placement	% Correct by Domain: Phonological Awareness	Phonics	Comprehension: Literature	Comprehension: Informational Text	Vocabulary
Alvarez, Gabriel	Completed 08/31/22	Below	57%	71%	13%	14%	17%
Amato, Florentina	Completed 09/02/22	Below	57%	43%	0%	14%	33%

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Advancing Equity for All Students



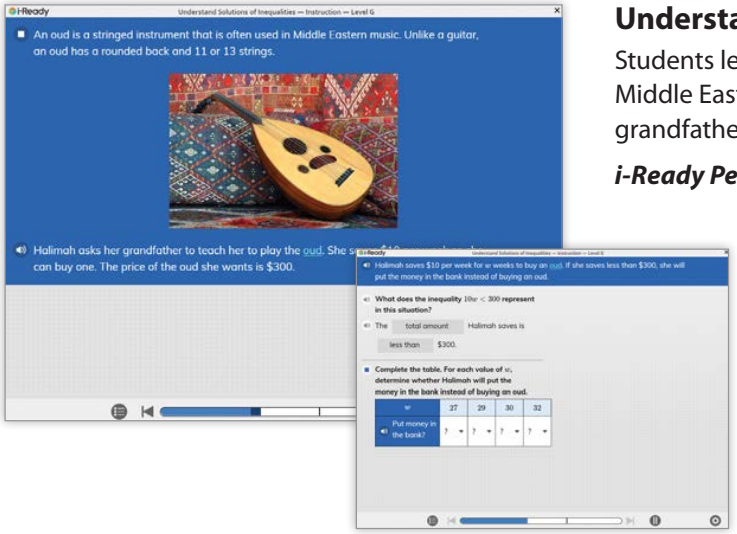
Gain asset-based insight into what each student can do and where they need to go next.



Set ambitious, attainable goals that help students orient to grade-level work, and provide them with the instructional supports to get there.

Engage every learner through culturally responsive content

that helps students feel seen and valued.



Understand Solutions of Inequalities

Students learn about inequalities in a word problem about a Middle Eastern stringed instrument that a character wants her grandfather to teach her how to play.

i-Ready Personalized Instruction, Mathematics, Grade 7



"Punks Don't Get Nervous" from *The First Rule of Punk* by Celia C. Pérez

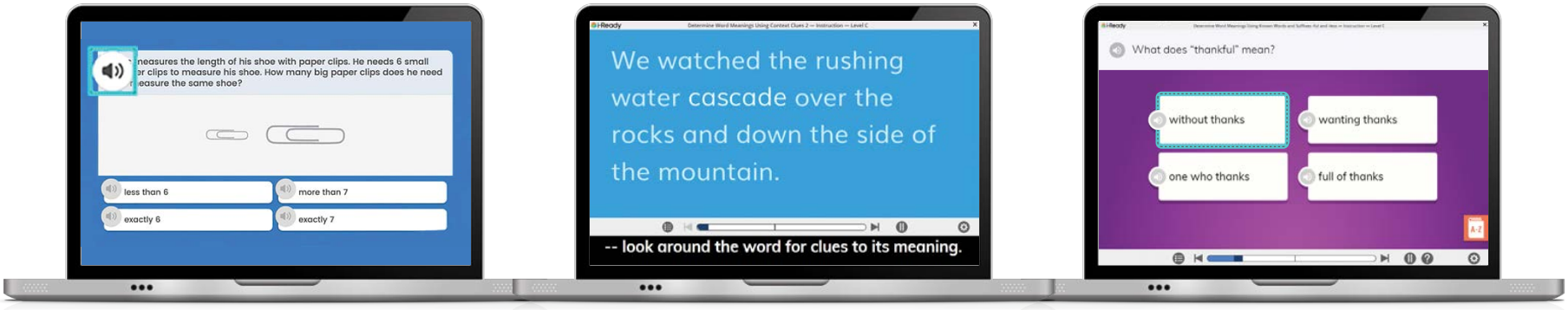
Mexican American 12-year-old Malú, who loves punk rock, works on a 'zine to express her reluctance to move with her mother to Chicago and far from her father for two years.

i-Ready Personalized Instruction, Reading, Grade 5

Dedicated to Creating Accessible Experiences

Our materials use an evolving system of supports that maximize usability for students with disabilities. We strive to ensure that accessibility and accommodation support considerations are incorporated into our product development process from the very beginning, and we've developed a continuous improvement approach to accessibility that ensures we're always improving and learning.

Our accessibility features include:



Universal Audio Support

Students can click on an audio button to hear the text of a question and/or answer read aloud. This feature can be used to support read-aloud accommodations.

Closed Captioning

Closed captioning displays text on a screen that aligns to the audio playing in a lesson.

Keyboard Navigation

Students can interact with content by using the keyboard. When using keyboard navigation, a focus indicator appears around each element as the user tabs through the page.

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i-Ready Learning

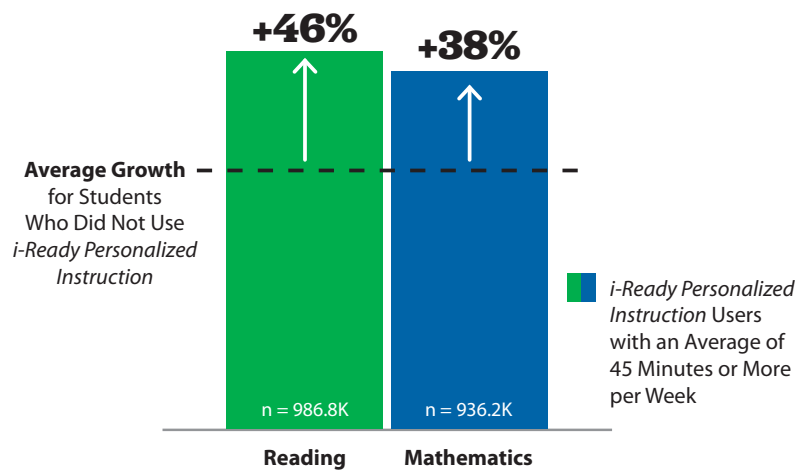


Efficacy ESSA Evidence

Students Using *i-Ready Personalized Instruction* Experience Remarkable Gains

The Curriculum Associates Research team analyzed data from more than one million students who took the *i-Ready Diagnostic*. This large-scale study provides additional support that *i-Ready* is a well-researched program that meets the criteria for "evidence based" as outlined by the Every Student Succeeds Act (ESSA).

Score Gains for Students Using *i-Ready* Relative to Students Not Using *i-Ready*, Grades K–8



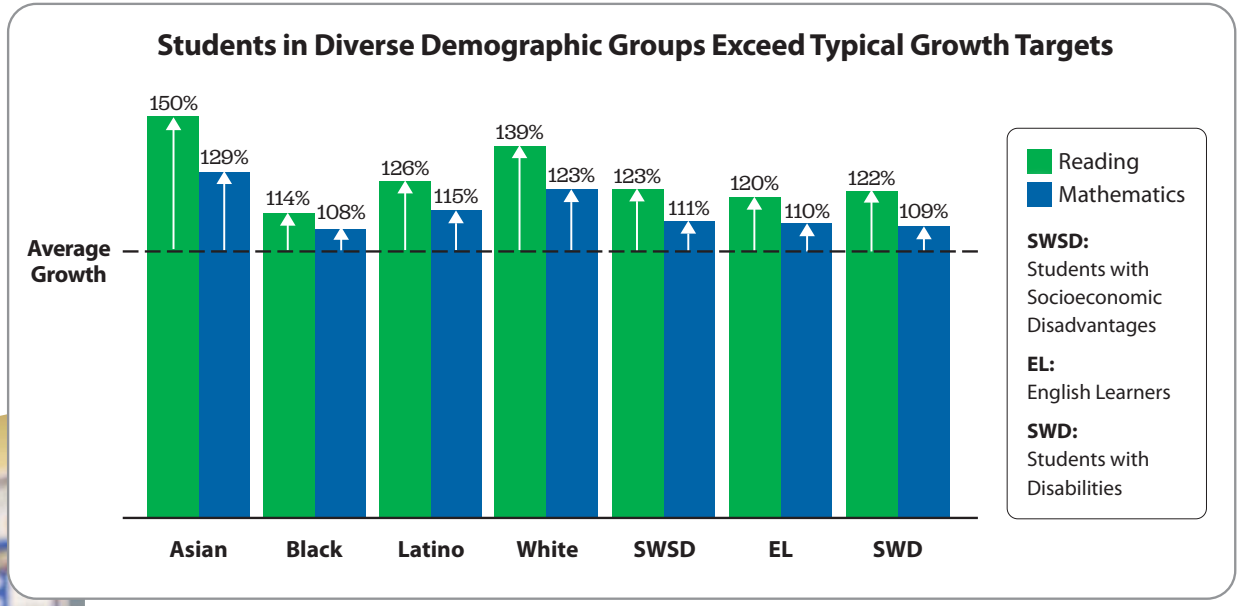
Students Achieve Greater Growth with *i-Ready*

Students using *i-Ready Personalized Instruction* for an average of 45 minutes or more per subject per week for at least 18 weeks showed statistically significantly greater growth than the average student who did not use *i-Ready Personalized Instruction*.

i-Ready Accelerates Growth for Student Groups

An additional study of students in Grades K–5 who used *i-Ready Personalized Instruction* during the 2020–2021 school year meeting ESSA Level 3 evidence found that students in various demographic groups who used *i-Ready* instruction as recommended exceeded their Typical Growth targets.





For more of the research behind *i-Ready*, including research meeting ESSA evidence criteria, please visit **CurriculumAssociates.com/Research**.

i-Ready Partners

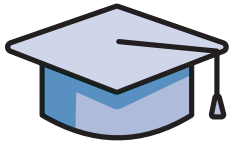
Each *i-Ready* partner has a different role to play in a successful implementation, working alongside you every step of the way to help you drive the greatest impact with *i-Ready*.





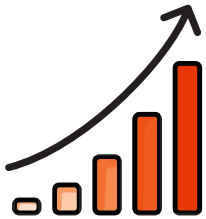
Partner Success Manager

Dedicated partners working with you to integrate *i-Ready* data into classrooms and achieve your district goals



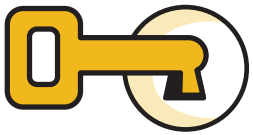
Professional Development

Experienced educators focused on best teaching practices to drive student achievement



Achievement Analytics

Periodic placement and progress analyses with ongoing analytic support



Educational Consultants

Program design and pedagogy experts providing strategic guidance



Technical Support

Responsive technical support and proactive issue identification



Flexible Professional Development That Grows with Your Implementation

Our professional development helps educators learn and enact carefully developed practices built around the most important actions that drive student growth.

Product Knowledge ●·····➤ **Practice Change**

New Users
Connecting data to instruction

Practicing Users
Embedding data in daily instruction

Advanced Users
Expanding use of data for broader impact

What We Offer



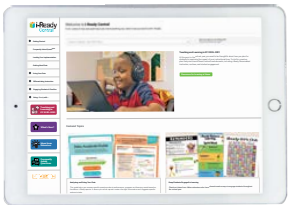
Expert-Facilitated Sessions That Provide the Foundation of a Data Culture

Led by expert former educators, our live professional development sessions use active, hands-on learning and engagement with data to build practical knowledge and pedagogical change.



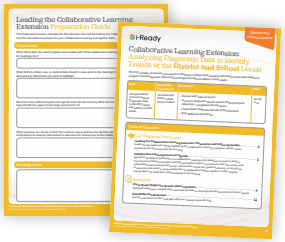
Online Educator Learning: Supporting Development, 24/7

The Online Educator Learning platform provides on-demand, interactive courses that enhance concepts introduced in facilitated professional development sessions.



Tools to Build a Collaborative Community of Learning

Designed to help you explore key steps and strategies in professional learning communities, grade-level team meetings, or other collaborative settings



Resources to Help Educators Make the Most of *i-Ready*

Comprehensive and easy to access, *i-Ready Central*® is filled with a wealth of resources for teachers, coaches, and leaders.

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i-Ready®

2020 NEW PRODUCT AWARD THE JOURNAL

BUROS CENTER FOR TESTING

Received a positive review in *The Twentieth Mental Measurements Yearbook* (published by the Buros Center for Testing)

//CODiE//
2022 SIIA CODiE FINALIST

NCII NATIONAL CENTER ON INTENSIVE INTERVENTION at American Institutes for Research

Received high ratings from the National Center on Intensive Intervention.

TECH & LEARNING BEST of SHOW ISTE20 LIVE Winner

Want to find out more?

i-Ready.com/Empower

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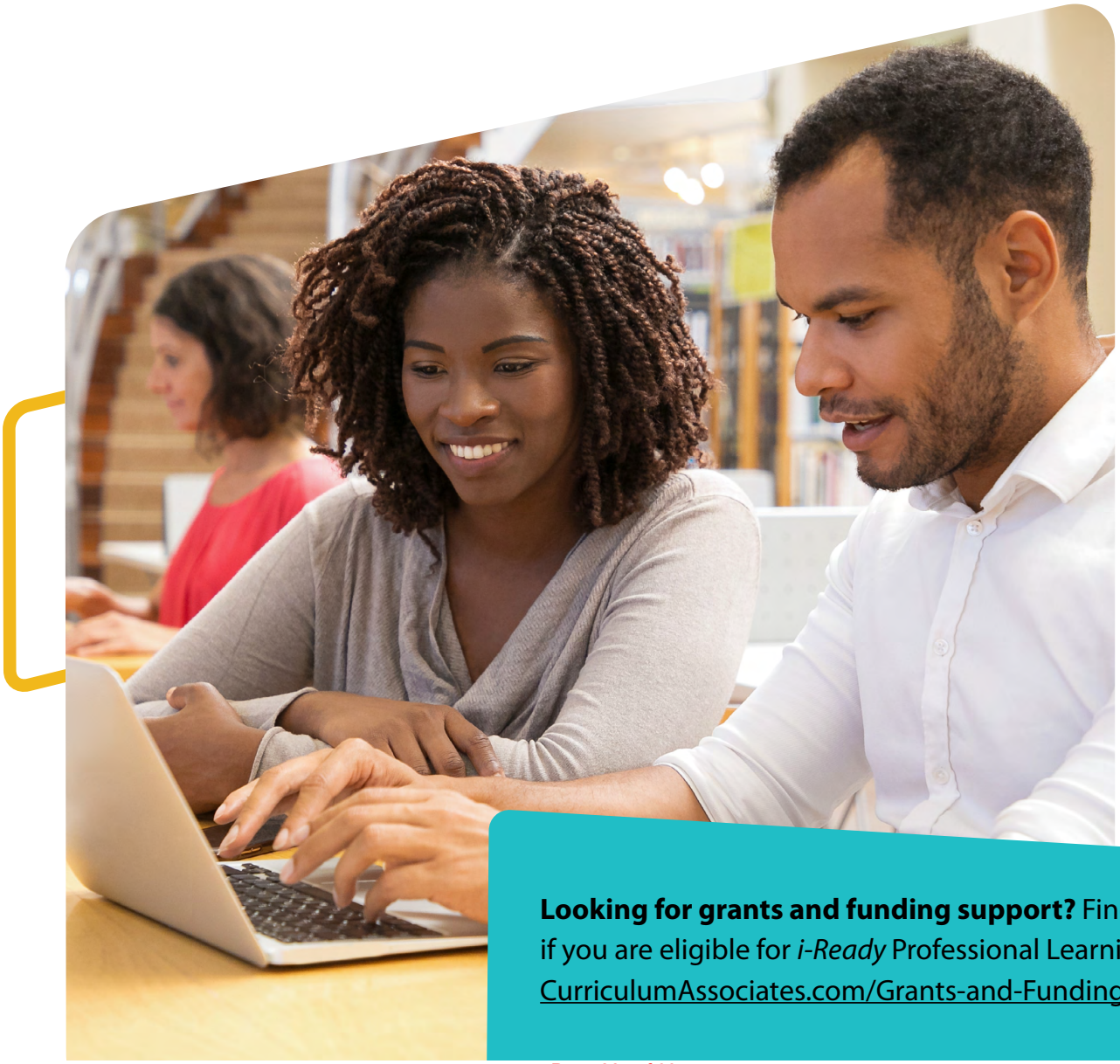
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Appendix H – *i-Ready* Professional Development Brochure

Professional Learning
2023 Edition

i-Ready

Lead the Charge for Impactful Learning

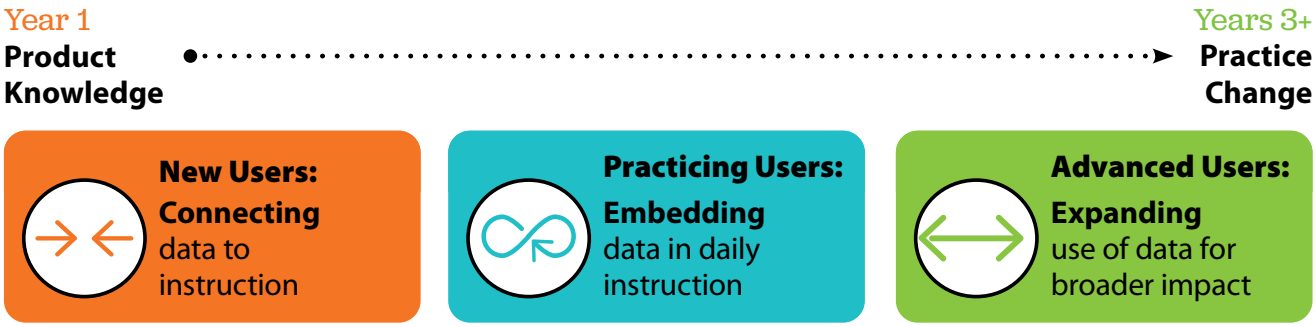


Looking for grants and funding support? Find out if you are eligible for *i-Ready* Professional Learning at: CurriculumAssociates.com/Grants-and-Funding.

Your Impact Is Our Purpose

Propel your team's professional learning growth to new heights. Curriculum Associates partners with you to guide and strengthen instructional practices based on your classrooms' unique assessment and learning data, all powered by *i-Ready Assessment*. Both teachers and leaders develop muscles ready to flex to make the leap to identify growth opportunities and reinforce daily data-driven instructional strategies. Sustained in-person or virtual sessions drive educator engagement with a partner there to work alongside you as you move along the continuum from product to practice. Educators can inform and make adjustments to their instruction and watch their practice improve with real-time feedback from assessment data and personalized instruction that mirrors what is happening in the classroom.

Create professional learning plans that can be updated and modified along the way. *i-Ready Partners* work alongside you to understand your needs and goals, outlining pathways to measurable and visible growth as your needs and goals change, product enhancements launch, and even when new educators onboard.



Energize Your Educators with Exceptional Professional Learning

> My professional learning session taught me so much about *i-Ready*! Our [professional learning] specialist was prepared, knowledgeable, and showed me a lot of ways to use my data to inform my instruction. I feel so excited to go and use what I learned in my classroom!
>
> —Teacher, Memphis, TN

95%

of educators gained useful and relevant knowledge in their professional learning sessions.

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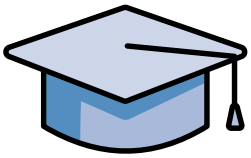
i-Ready Partners

Your *i-Ready Partners* team is your partner in learning, from successful implementation to data analysis, to improving day-to-day instructional routines.



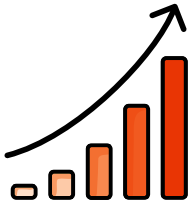
Partner Success Managers

Dedicated partners working with you to integrate *i-Ready* into your classrooms and create a data culture



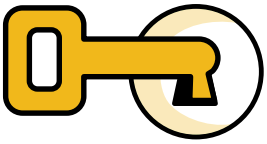
Professional Learning

Experienced educators delivering immersive experiences focused on best teaching practices to drive student achievement



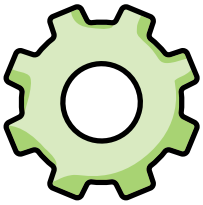
Achievement Analytics

Periodic placement and progress analyses with ongoing analytic support



Educational Consultants

Program design and pedagogy experts providing strategic guidance



Technical Support

Responsive technical support and proactive issue identification

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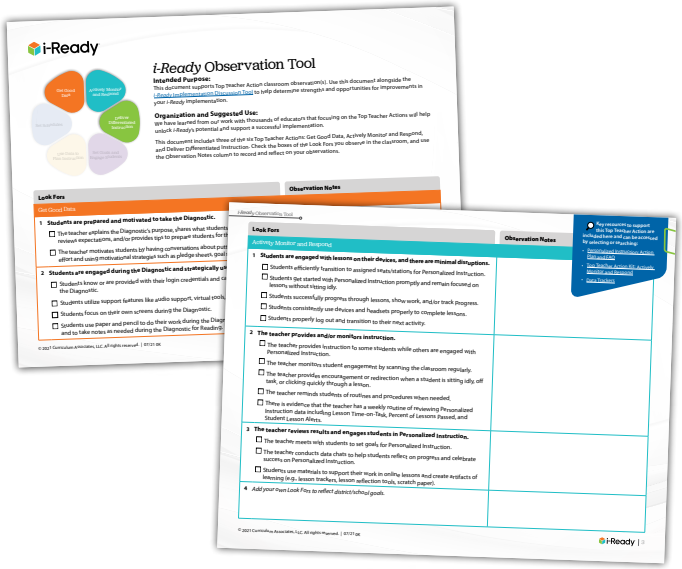
What We Offer

A System of Support to Meet in-the-Moment Needs to Drive Student Growth

Leader Support

Building Leader Capacity for Successful Implementations

Leaders are an essential component of a strong *i-Ready* implementation, and building their capacity is part of our plan. We offer leader support through focused courses as well as ongoing consultation via Tailored Support sessions. Our specialized tools for data analysis, walkthroughs, and feedback discussions enable leaders to better manage their implementations to success.





Professional Learning Sessions

Expert-Facilitated, Sustained Support

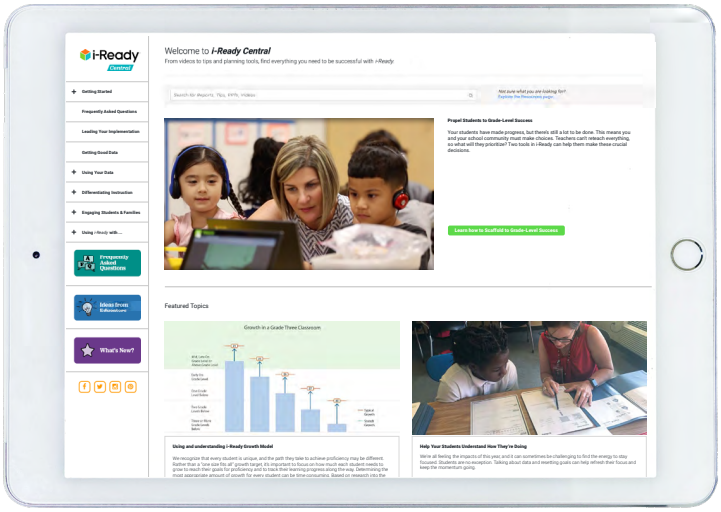
Led by expert former educators, our live sessions use active, hands-on learning and engagement with data to build practical knowledge and pedagogical change. These sessions can be delivered on site or virtually. **See pages 6–7 for scope and sequence and pricing.**

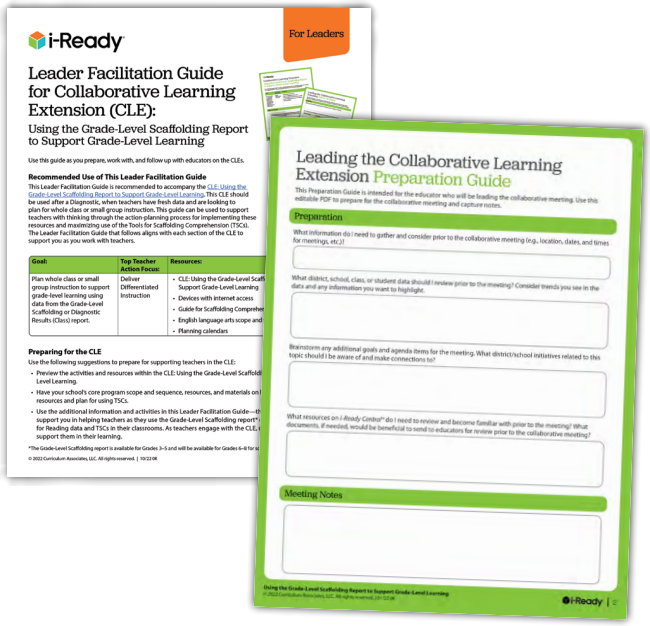
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***i-Ready Central*®**

Curated Resources on a Single Platform

Comprehensive and easy to access, *i-Ready Central* is filled with a wealth of resources for teachers, coaches, and leaders. The platform is carefully curated to help the novice get just what they need in the moment or the expert dive deeply into the many facets of *i-Ready*. Every educator is welcome to stop by and get inspiration or an answer.





Collaborative Learning Extensions

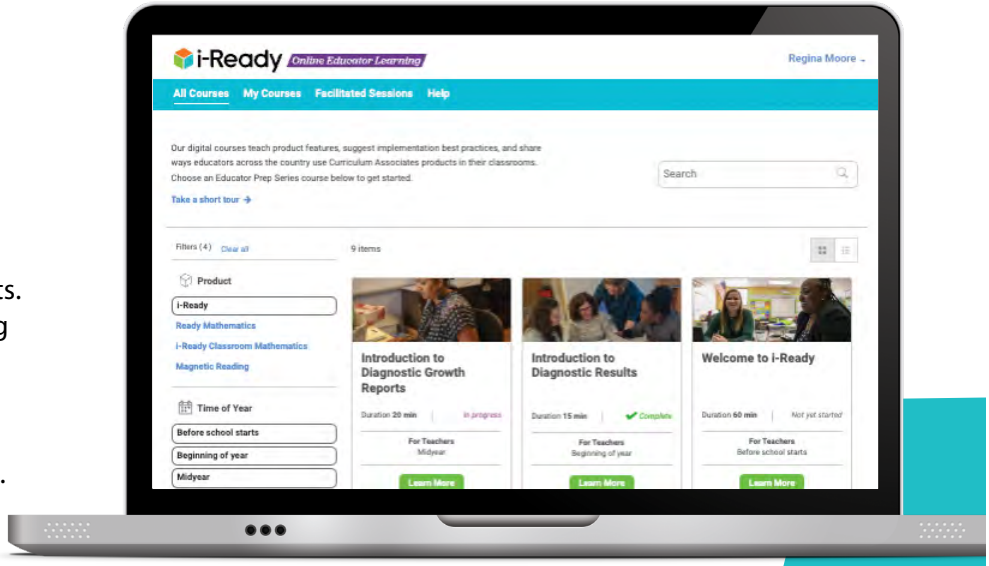
Tools to Build a Collaborative Learning Community

Dive deep into the areas of *i-Ready* that are most useful to your implementation. Collaborative Learning Extensions (CLEs) are designed help you explore key steps and strategies in professional learning communities (PLCs), grade-level or team meetings, or other collaborative settings. The CLEs include all necessary resources for educators—including leaders, coaches, or teachers—to facilitate collaborative meetings with colleagues.

Online Educator Learning

On-Demand, Interactive Learning

Engaging Online Educator Learning (OEL) courses complement *i-Ready* Professional Learning sessions by reinforcing key concepts. Educators learn best practices by completing modular courses at the right time, at their own pace. Detailed course completion reports offer school and district leaders insight into their staff's professional learning.



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Professional Learning Scope and Sequence

Our professional learning is designed to grow along with your implementation, meeting the learning needs and interests of educators at each phase of their development: New, Practicing, and Advanced. Our courses address a set of common learning outcomes, while our Tailored Support sessions deliver targeted outcomes specific to your needs. All sessions in this scope and sequence can be facilitated on site or virtually. Some sessions may be recommended for virtual facilitation depending on your implementation needs.

	New Connecting Data to Instruction	**3 Sessions*** Total: $6,000/Site	**Practicing** Embedding Data in Daily Instruction
Back to School	***For Leaders:*** Starting Strong with *i-Ready*	**Included****	***For Leaders:*** Analyzing School Data to Start Your Year Strong *This course can be delivered during Back to School **or** after the first Diagnostic.*
	For Teachers: Getting Good Data with *i-Ready*	✓	
After the First Diagnostic	***For Teachers:*** Using Data to Plan Instruction	✓	***For Teachers:*** Delivering Differentiated Instruction
After the Second Diagnostic	**Tailored Support** **Supporting Fidelity** We identify data trends and recommend topics to get everyone on the path to *i-Ready* success. This session ensures that momentum from Using Data to Plan Instruction extends to the second Diagnostic and beyond.	✓	***For Teachers:*** Helping All Learners Succeed
			Tailored Support† **Supporting Classroom Impact** We collaborate with you to gauge teachers' proficiency so we can build differentiated agendas to meet their needs and help develop internal coaching capacity in providing flexible support to educators as they implement *i-Ready*.

*Each à la carte session is $2,000 ($2,250 in Alaska and Hawai'i). See pages 14–15 for details about our flexible scheduling and grouping.

**Districts with three or more implementing sites purchasing professional learning packages will receive a centralized leadership session (one per every 10 sites) of up to three hours in length.

†Practicing and Advanced Tailored Support sessions can be scheduled at any time during the school year.

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New to Teaching Series!

The *i-Ready* New to Teaching series is a three-session*, in-person professional learning series designed for first-time teachers who have not participated in traditional teacher education coursework.

Before a Diagnostic

Session I: Getting and Understanding Good Data *(2 hours)*

- Prepare and motivate students.
- Collect meaningful data.
- Implement data practices.

After a Diagnostic

Session II: Using Data to Plan Whole Class Instruction *(2 hours)*

- Analyze data to strategically plan for whole class instruction.

Session III: Using Data to Plan Small Group Instruction *(2 hours)*

- Analyze data to strategically plan for small group instruction.

	3 Sessions* Total: $6,000/Site	2 Sessions* Total: $4,000/Site
	Included**	Included**
	✓	✓
	✓	✓
	✓	

Advanced
Expanding Use of Data for Broader Impact

2 Sessions* Total: $4,000/Site	1 Session* Total: $2,000/Site
Included**	Included**
✓ ✓	✓

Tailored Support†

Supporting Continuous Growth and a Culture of Data

We collaborate with you to deliver targeted support to address building- or classroom-level interests and issues, support new users, and ensure that all educators are evolving their practice using the latest and greatest updates and tools for *i-Ready*.

For Leaders:

Tailored Support

For Teachers:

Tailored Support

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Your First Year with i-Ready

Surrounded by Support

New: Connecting Data to Instruction

In your first year with *i-Ready*, our *i-Ready Partners* will support you every step of the way. Your first year of professional learning will include several expert-led sessions, along with just-in-time OEL resources, as well as resources for PLCs or other educator-led groups to deepen their learning.

	Professional Learning Led by Our *i-Ready* Experts*	Online Educator Learning	Select Teacher and Leader Resources and Tools**
Before the First Diagnostic	***For Teachers:*** Getting Good Data with *i-Ready* ❶ ***For Leaders:*** Starting Strong with *i-Ready*	***For Teachers:*** Administering the Diagnostic	***For Teachers:*** Kit: Get Good Data ***For Leaders:*** Diagnostic Look Fors ❸
After the First Diagnostic	***For Teachers:*** Using Data to Plan Instruction ❹ ***For Leaders:*** Grade-Level Data Analysis and Action Planning†	***For Teachers:*** Introduction to Diagnostic Results	***For Teachers:*** Kit: Use Data to Plan Instruction ❹ ***For Leaders:*** Leader Action Pack: Using Assessment and Data
Between the First and Second Diagnostic		***For Teachers:*** Best Practices for Personalized Instruction ❷	***For Teachers:*** Kit: Actively Monitor and Respond ***For Leaders:*** CLE: Scheduling *i-Ready Personalized Instruction* in Your Building
After the Second Diagnostic	***For Teachers:*** **Suggested Tailored Support** Responding to Growth Data or Monitoring Personalized Instruction		***For Teachers:*** CLE: Using the Prerequisites or Grade-Level Scaffolding Reports to Support Grade-Level Learning ***For Leaders:*** CLE: Leader Facilitation Guides for Using the Prerequisites or Grade-Level Scaffolding Reports to Support Grade-Level Learning

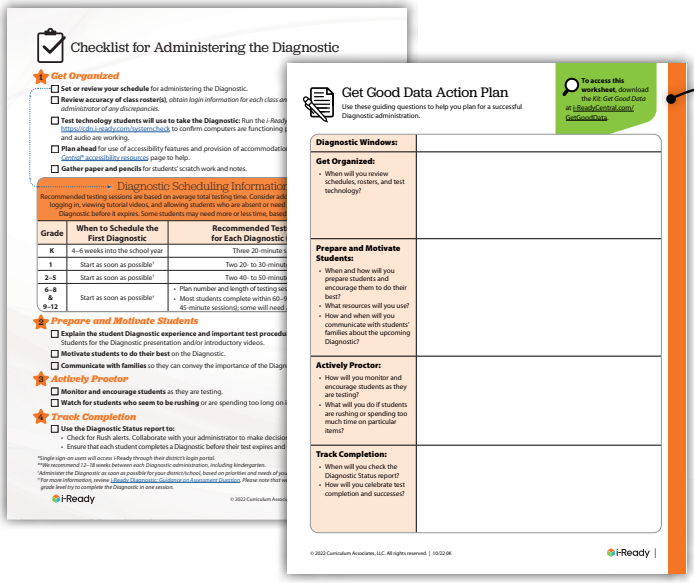
Connect with your *i-Ready Partners* to learn more.

*Can be delivered on site or virtually

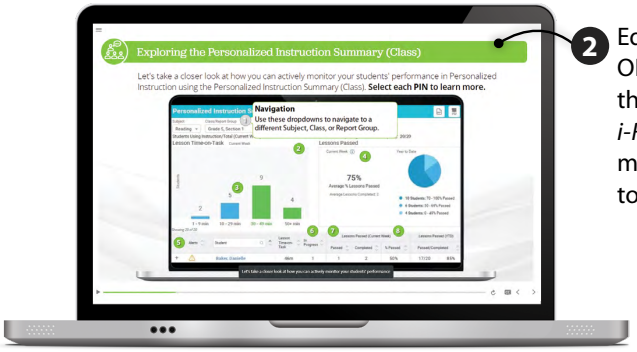
**We will recommend additional resources and tools during our courses.

†Site-based leadership support provided before or after teacher session.

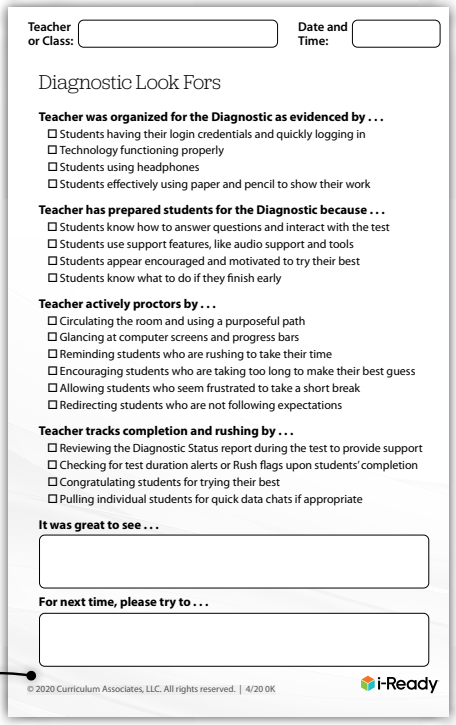
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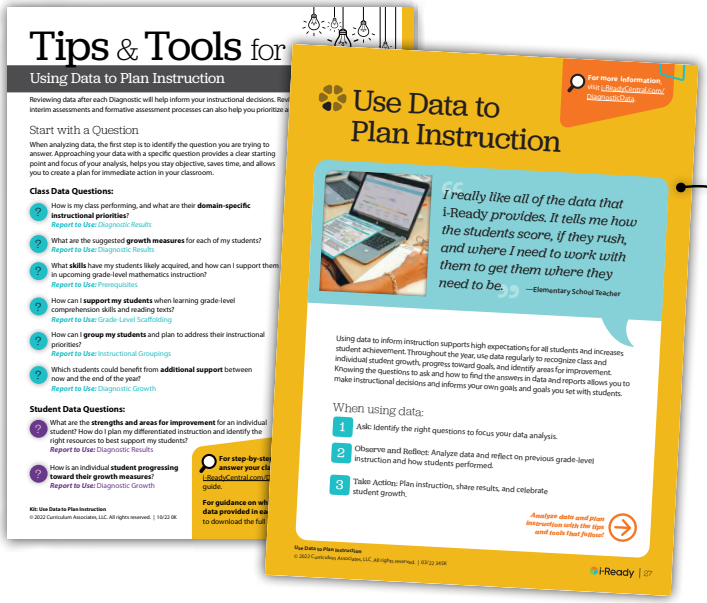
1 The foundation of a successful first year is high-quality, reliable data. In the first session, teachers learn how the *i-Ready Diagnostic* works and make a plan to get good data.



2 Educators use OEL to dive into the areas of *i-Ready* that are most applicable to their needs.



3 Right from the start, leaders are given the tools they need to give their implementation a solid foundation by helping educators establish effective strategies and foundations that unlock *i-Ready*'s potential to drive student growth.



4 After the first Diagnostic, educators analyze their students' data, beginning to build their effective data analysis practices and planning instruction to accelerate student learning. They leave the session with a kit of materials to continue to home in on their students' instructional priorities.

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Your Second Year with i-Ready

Making Change through Practice

Practicing: Embedding Data in Daily Instruction

In your second year with *i-Ready*, our *i-Ready Partners* take you deeper into using *i-Ready* to effect change and drive student growth. Professional learning sessions focus deeply on the daily work of data impacting everyday instructional practices, while OEL resources help educators understand all of the instructional materials available through *i-Ready* and how to use them most effectively.

	Professional Learning Led by Our *i-Ready* Experts*	Online Educator Learning	Select Teacher and Leader Resources and Tools**
Before the First Diagnostic	***For Leaders:*** Analyzing School Data to Start Your Year Strong	***For Teachers:*** Administering the Diagnostic	***For Teachers:*** Preparing Students for the Diagnostic Presentations ***For Leaders:*** CLE: Examining School Historical Results
After the First Diagnostic	***For Teachers:*** Delivering Differentiated Instruction ❷	***For Teachers:*** Preparing for Small Group Instruction	***For Teachers:*** Kit: Deliver Differentiated Instruction ***For Leaders:*** Observation and Implementation Discussion Tools
Between the First and Second Diagnostic	***For Teachers:*** **Suggested Tailored Support** Monitoring and Responding to Instruction or Student and Family Engagement	***For Teachers:*** • Introduction to Diagnostic Growth • Engaging Students through Data Chats	***For Teachers:*** Student Data Chats ❹ ***For Leaders:*** CLEs on *i-Ready* instructional resources recommended for anytime during the school year
After the Second Diagnostic	***For Teachers:*** Helping All Learners Succeed ❶ ***For Leaders:*** Analyzing School Growth and Performance Data†	***For Teachers:*** Using Data to Plan Instruction after the Second Diagnostic ❸ ***For Leaders:*** Analyzing Growth to Inform Decision-Making	***For Teachers:*** Student Growth and Performance Analysis Worksheet

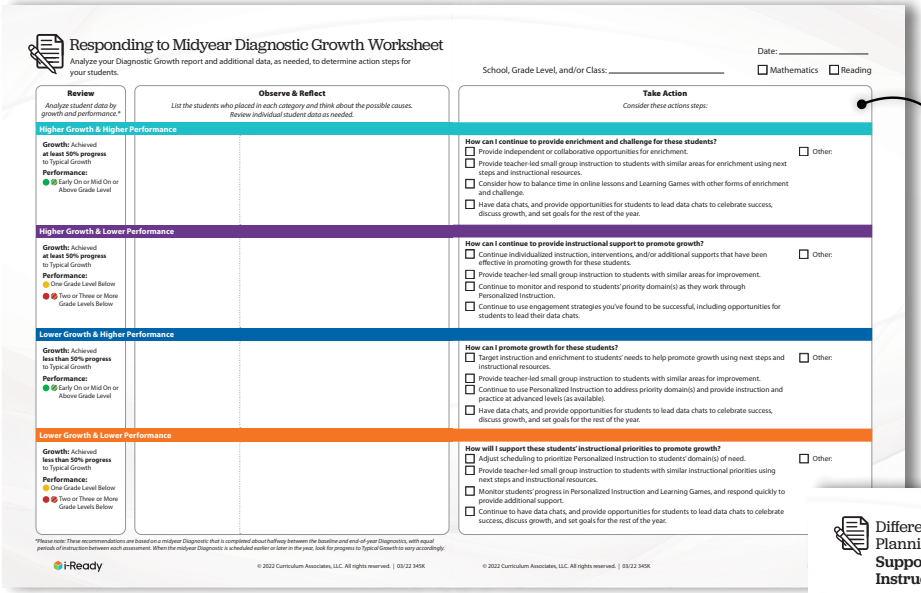
Connect with your *i-Ready Partners* to learn more.

*Can be delivered on site or virtually

**We will recommend additional resources and tools during our courses.

†Site-based leadership support provided before or after teacher session.

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Responding to Midyear Diagnostic Growth Worksheet

Analyze your Diagnostic Growth report and additional data, as needed, to determine action steps for your students.

School, Grade Level, and/or Class: _____ Date: _____ ☐ Mathematics ☐ Reading

Review	Observe & Reflect	Take Action
*Analyze student data by growth and performance.**	*List the students who placed in each category and think about the possible causes. Review individual student data as needed.*	*Consider these actions steps:*
Higher Growth & Higher Performance		
Growth: Achieved **at least 50% progress** to Typical Growth **Performance:** Early On or Mid On or Above Grade Level		**How can I continue to provide enrichment and challenge for these students?** ☐ Provide independent or collaborative opportunities for enrichment. ☐ Provide teacher-led small group instruction to students with similar areas for enrichment using next steps and instructional resources. ☐ Consider how to balance time in online lessons and Learning Games with other forms of enrichment and challenge. ☐ Have data chats, and provide opportunities for students to lead data chats to celebrate success, discuss growth, and set goals for the rest of the year. ☐ Other:
Higher Growth & Lower Performance		
Growth: Achieved **at least 50% progress** to Typical Growth **Performance:** One Grade Level Below; Two or Three or More Grade Levels Below		**How can I continue to provide instructional support to promote growth?** ☐ Continue individualized instruction, interventions, and/or additional supports that have been effective in promoting growth for these students. ☐ Provide teacher-led small group instruction to students with similar areas for improvement. ☐ Continue to monitor and respond to students' priority domain(s) as they work through Personalized Instruction. ☐ Continue to use engagement strategies you've found to be successful, including opportunities for students to lead their data chats. ☐ Other:
Lower Growth & Higher Performance		
Growth: Achieved **less than 50% progress** to Typical Growth **Performance:** Early On or Mid On or Above Grade Level		**How can I promote growth for these students?** ☐ Target instruction and enrichment to students' needs to help promote growth using next steps and instructional resources. ☐ Provide teacher-led small group instruction to students with similar areas for improvement. ☐ Continue to use Personalized Instruction to address priority domain(s) and provide instruction and practice at advanced levels (as available). ☐ Have data chats, and provide opportunities for students to lead data chats to celebrate success, discuss growth, and set goals for the rest of the year. ☐ Other:
Lower Growth & Lower Performance		
Growth: Achieved **less than 50% progress** to Typical Growth **Performance:** One Grade Level Below; Two or Three or More Grade Levels Below		**How will I support these students' instructional priorities to promote growth?** ☐ Adjust scheduling to prioritize Personalized Instruction to students' domain(s) of need. ☐ Provide teacher-led small group instruction to students with similar instructional priorities using next steps and instructional resources. ☐ Monitor students' progress in Personalized Instruction and Learning Games, and respond quickly to provide additional support. ☐ Continue to have data chats, and provide opportunities for students to lead data chats to celebrate success, discuss growth, and set goals for the rest of the year. ☐ Other:

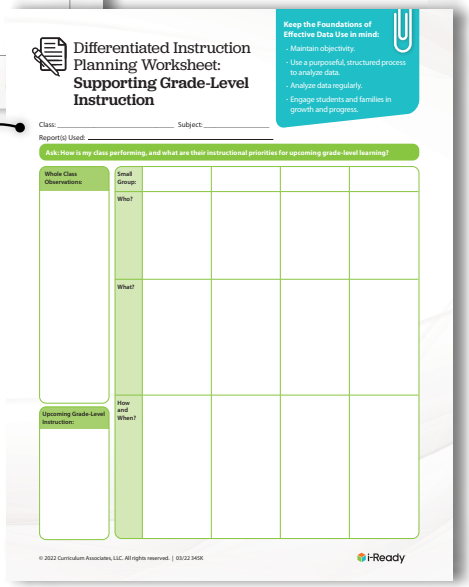
*Please note: These recommendations are based on a midyear Diagnostic that is completed about halfway between the baseline and end-of-year Diagnostics, with equal periods of instruction between each assessment. When the midyear Diagnostic is scheduled earlier or later in the year, look for progress to Typical Growth to vary accordingly.

i-Ready

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1 Help educators use data in a continuous feedback process to accelerate student growth.



Differentiated Instruction Planning Worksheet: **Supporting Grade-Level Instruction**

Keep the Foundations of Effective Data Use in mind:
- Maintain objectivity.
- Use a purposeful, structured process to analyze data.
- Analyze data regularly.
- Engage students and families in growth and progress.

Class: _____ Subject: _____

Report(s) Used: _____

Ask: How is my class performing, and what are their instructional priorities for upcoming grade-level learning?

Whole Class Observations:	Small Group:				
	Who?				
	What?				
Upcoming Grade-Level Instruction:	How and When?				

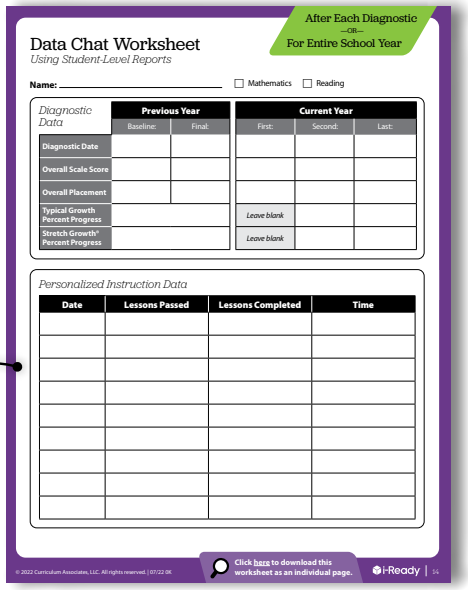
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i-Ready

2 Help educators make the leap from analyzing their data to effectively differentiating instruction.

3 Educators use OEL to learn to design activities that students complete, collaboratively or independently, during station rotations.





Data Chat Worksheet

Using Student-Level Reports

After Each Diagnostic —OR— For Entire School Year

Name: _____ ☐ Mathematics ☐ Reading

Diagnostic Data

	Previous Year		Current Year		
	Baseline:	Final:	First:	Second:	Last:
Diagnostic Date					
Overall Scale Score					
Overall Placement					
Typical Growth Percent Progress			*Leave blank*		
Stretch Growth® Percent Progress			*Leave blank*		

Personalized Instruction Data

Date	Lessons Passed	Lessons Completed	Time

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Click here to download this worksheet as an individual page.

i-Ready | 14

4 Help educators engage students in goal-setting conversations.

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Years 3 and Beyond

Growing and Changing with You

Advanced: Expanding Data Use for Broader Impact

From your third year on, our *i-Ready Partners* tailor your support to align with the needs you identify for your implementation. Professional learning sessions are carefully chosen to enrich areas of focus, while OEL resources deepen educator understanding and help experienced users keep pace with new *i-Ready* features.

	Professional Learning Led by Our *i-Ready* Experts*	Online Educator Learning	Select Teacher and Leader Resources and Tools**
Before the First Diagnostic	***For Teachers or Leaders:*** **Suggested Tailored Support** Examining Historical Results	***For Teachers:*** Administering the Diagnostic	***For Teachers:*** CLE: Family Engagement 4 ***For Leaders:*** CLE: Strengthening Collaborative Planning in Your School
After the First Diagnostic	***For Teachers:*** **Suggested Tailored Support** Using Data to Adjust or Create Small Groups 1 ***For Leaders:*** **Suggested Tailored Support** Strengthening Your *i-Ready* Implementation or Using *i-Ready* Data to Support Your Implementation	***For Teachers:*** • Using Tools for Scaffolding Comprehension • Using the Prerequisites Report to Inform Instruction	***For Teachers:*** Data Analysis Guide ***For Leaders:*** Leader Action Pack
Between the First and Second Diagnostic			***For Teachers:*** Middle School Lesson Plans: Engaging Students with *i-Ready* ***For Leaders:*** CLE: Analyzing Diagnostic Results or CLE: Analyzing Personalized Instruction 4
After the Second Diagnostic	***For Teachers:*** **Suggested Tailored Support** Using Multiple Data Sources to Drive Instruction 2, Accelerating Learning, or Special Group Support by Grade Band	***For Teachers:*** Setting Goals with Students after the Second Diagnostic 3	***For Teachers:*** CLE: Goal Setting ***For Leaders:*** Kit: Reflect and Plan

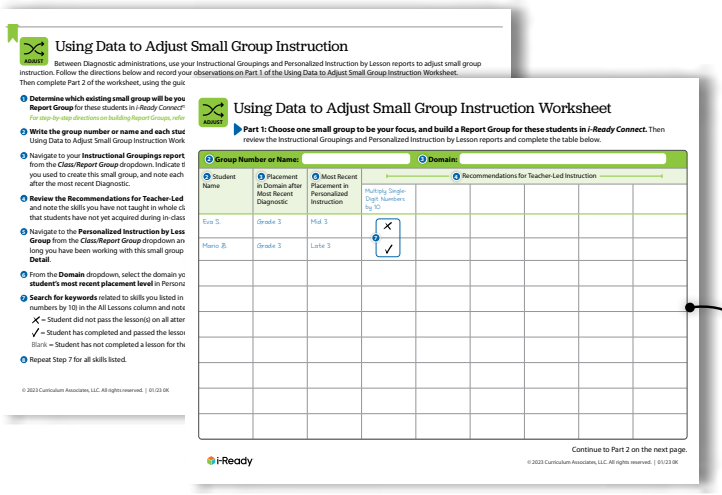
Connect with your *i-Ready Partners* to learn more.

*Can be delivered on site or virtually

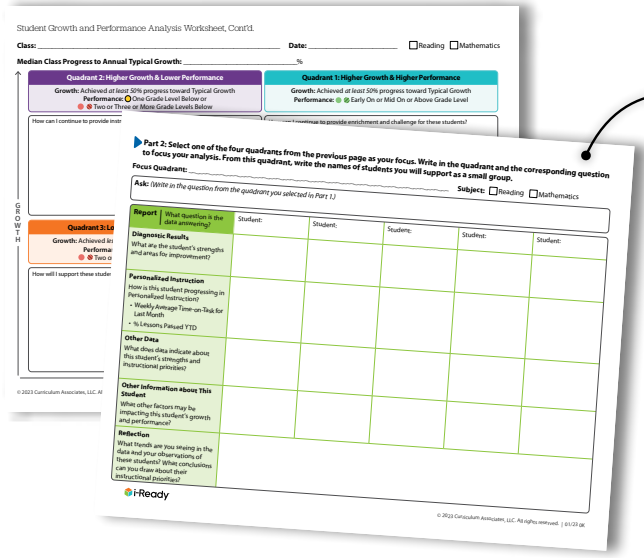
**We will recommend additional resources and tools during our courses.

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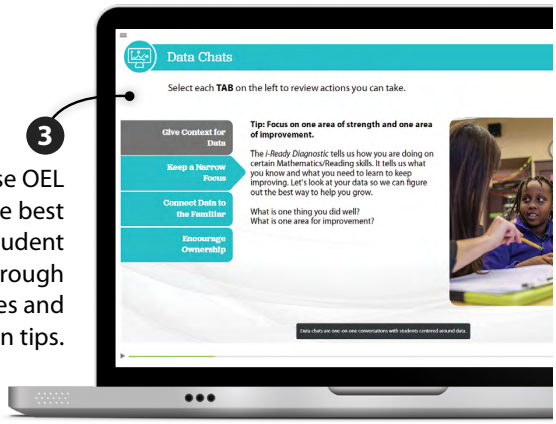
> "Each time I receive professional [learning] to learn more about *i-Ready* from Curriculum Associates, I feel like I have new tools in my toolbox to support my students' growth."
>
> —Year 3 *i-Ready* Educator



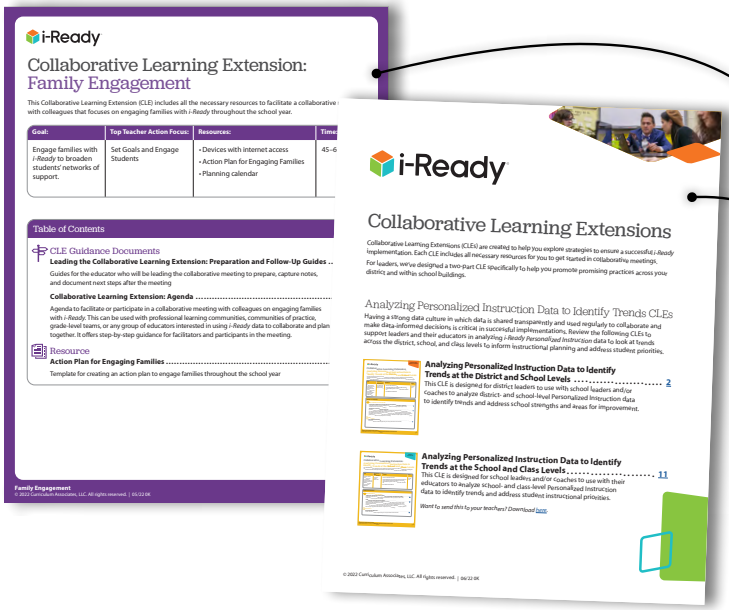
1 As teachers advance their use of *i-Ready*, they use data to effectively work with students in small group instruction settings.



2 To make the most of every instructional moment, educators use their *i-Ready* data to make effective decisions about how to adjust instruction throughout the year using multiple sources of data.



3 Educators use OEL to explore best practices for student data chats through video examples and preparation tips.



4 Leaders, teachers, and coaches use CLEs to foster a productive data culture in their buildings and better foster collaboration and growth.

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Flexible Scheduling, Differentiated Learning

While our professional learning scope and sequence is designed to move teachers and leaders along the continuum from product to practice, we continuously calibrate our approach because not everyone has the same needs at the same time. Our flexible days and grouping allow us to work with you to meet multiple sets of needs in one session, lasting up to six hours.

Scheduling Courses

The recommended time for our New and Practicing courses is three hours, but we work within the flexibility of up to six hours to meet your needs.

Scenario 1

The Need: Educators at a site have the same learning needs and can meet at the same time.

The Solution: Deliver a three-hour course to all teachers together.

3 hr.	Course delivered to up to 30 teachers
	Break
3 hr.	Grade-Level Data Analysis and Action Planning with site-based leadership

Scenario 2

The Need: All educators need the same learning, but scheduling prevents them from meeting as one group.

The Solution: Rotate teacher groups through the same course.

90 min.	Courses for Grades K–1 educators
90 min.	Courses for Grades 2–3 educators
90 min.	Courses for Grades 4–5 educators
	Break
90 min.	Grade-Level Data Analysis and Action Planning with site-based leadership

Scenario 3

The Need: Educators at a site have varying levels of *i-Ready* experience or other differentiated learning needs.

The Solution: Rotate teacher groups through different courses.

2 hr.	Condensed course delivered to group with similar learning needs
2 hr.	Different, condensed course delivered to group with separate learning needs
	Break
2 hr.	Grade-Level Data Analysis and Action Planning with site-based leadership

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"Curriculum Associates becomes your family, and it's all because of the service you receive."

—Rosemary V., Resource Specialist

Scheduling Tailored Support

Tailored Support sessions last up to six hours and are designed in cooperation with leaders and coaches based on implementation goals and educator needs.

Scenario 1

The Need: All teachers at a site need support reviewing their midyear data after the second Diagnostic.

The Solution: Rotate grade-level teams through PLCs.

50 min.	PLC to analyze midyear data with Grade K and plan for accelerated growth
50 min.	PLC to analyze midyear data with Grade 1 and plan for accelerated growth
50 min.	PLC to analyze midyear data with Grade 2 and plan for accelerated growth
	Break
1 hr.	Analyzing School Growth and Performance Data with site-based leadership
50 min.	PLC to analyze midyear data with Grade 3 and plan for accelerated growth
50 min.	PLC to analyze midyear data with Grade 4 and plan for accelerated growth
50 min.	PLC to analyze midyear data with Grade 5 and plan for accelerated growth

Scenario 2

The Need: Advanced *i-Ready* users need to work on data-driven collaboration strategies specific to their roles.

The Solution: Rotate like-role teams through advanced learning modules.

2 hr.	Stengthening Your *i-Ready* Implementation for instructional coaches
2 hr.	Using Multiple Data Sources to Drive Instruction for all general education teachers
	Break
2 hr.	Using *i-Ready* to Support Intervention for intervention specialists

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Your Impact Is Our Purpose

Find your local educational consultant at
CurriculumAssociates.com/Contact.

To see how other educators are maximizing their *i-Ready* experience, follow us on social media!

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Appendix I – Resumes of Staff and Local Representatives

Jackie Davis, Partner Success Manager

Education

- M.A., Educational Specialist, Instructional Design, Virginia Tech University
- M.A., Educational Leadership and Policy Studies, Virginia Tech University
- B.S., Elementary Education, Manhattan College

Professional Experience

Curriculum Associates, LLC, Billerica, MA 2017-Present
Partner Success Manager (2019-Present)
Educational Consultant (2017-2019)

- Work with educators on developing and improving their differentiation practices.

Lynchburg City Schools 2014-2016
Lead Instructional Coach

- Key contributor in double-digit improvement on SOL test in reading and math for previous 2 years across both priority schools within division; creating model lessons, designing materials, coaching teachers on differentiation, and supporting teachers with analysis and implementation of data.
- Drove overall math SOL pass from 54% in 2014 to 68% in 2016 through creating and leading professional development for district, schools, and grade-level teams based on the most current research and best practices.
- Spearheaded development and implementation of Guided Math Toolboxes for grades K-6, as well as the ADA Guided Math Toolbox, facilitating increased differentiation of lessons based on student needs.
- Cultivated trusted relationships with teachers through providing support and coaching, becoming a go-to resource for teachers and increasing the receptiveness to new professional development programs.
- Introduced Guided Math to 4+ instructional coaches and spearheaded the professional development of coaches to enable effective sharing and implementation across 300 teachers with several hundred students throughout division.
- Incorporated technology solutions, such as Google Calendars, Excel spreadsheets, and video presentation platforms, to track and improve efficiency in gathering and analyzing metrics and creating reports.
- Launched and provided continual support for Guided Math in 2 elementary schools, with one school becoming accredited in math and improving their pass rate from 50% to 77%.
- Provide professional development for new hires, equipping them with resources including i-Ready Reading and Math, VDOE, Power School, ST Math, and Reflex Math.
- Facilitate Professional Learning Communities (PLCS), providing initial leadership to accelerate teacher alignment with school improvement plans and implementation of data analysis, then gradual transition to teacher ownership with ongoing coaching.
- Unpacked all Math SOL requirements, enhancing teacher understanding and facilitating improved planning.

Dearington Elementary School 2013-2014

Title 1 Math and STEM Teacher

- Supported students identified for Title 1 intervention.
- Selected as Principal Designee, fulfilling all-aspects of position when Principal was out of building, including routine drills, engaging parents, supporting teachers, addressing student behavior, and handling dismissal.
- Created and implemented Guided Math, turning around failing math program from 38% pass rate to 50% within 1 year.
- Researched and analyzed school data for School Improvement Meetings and the School Improvement Plan, providing information identifying skills gaps and enabling teachers to implement more effective differentiated solutions.

Park Avenue Elementary School 2011-2013

Math Coach and 3rd Grade Teacher

- Achieved school math accreditation through creating and delivering professional development focused on Guided Math and math instruction, as well as Technology Enhanced Items in support of New Math SOLs.
- Partnered with division leaders to create division-level benchmark assessments and pacing guides for science and math, ensuring SOL expectations were met by early identification of gaps and implementation of tailored curriculum.
- Improved school's math results by 15% by developing math centers and games for computers using PowerPoint, Smartboard, and Promethean board technology.

Park Avenue Elementary School 2008-2011

4th Grade Classroom Teacher

- Consistently achieved highest state test results across facility.
- Secured approximately $5K-$9K through writing grants for materials such as iPads, cross-curriculum books, fish tanks, and other classroom items.
- Assisted with writing of IEPs and 504 plans, as well as co-taught with SPED teachers.

Kristin Scannell, Regional Manager, Partner Success

Education

- Master of Education, Curriculum and Instruction in Elementary Education, University of Nevada at Las Vegas
- Bachelor of Science, Business Administration in Marketing, University of Colorado at Boulder

Professional Experience

Curriculum Associates, LLC, Billerica, MA June 2017-Present
Regional Manager, Partner Success

- Provides project management for school and district-wide product implementations
- Provides account and product related customer support for incoming calls and emails from customers (teachers, specialists and school leadership) including transferred calls from Customer Service
- Reviews assigned accounts on a regular basis to review usage trends and completes regular check-ins with customers
- Addresses customer concerns and ensures the resolution of issues in a timely manner, with follow-up when appropriate

Strive Preparatory Schools, Denver, CO 2015-2017
Director of Staffing

- Led a rigorous, multi-step recruitment and selection process for a growing network of eleven K-12 charter schools, resulting in annual hiring metrics of 200+ new teachers and leaders
- Managed and developed a staff of 5 managers to maintain employee databases and provide employee support
- Developed vision for future talent needs and staff engagement efforts, including a teacher residency and retention bonus program

Mile High United Way, Denver, CO 2013-2014
Early Literacy Operations Program Manager

- Managed a $3.6 million Early Literacy Social Innovation Fund (SIF) portfolio aimed at growing innovative community-based solutions in low-income communities
- Supported ten early literacy organizations to develop nationally approved multi-year evaluation studies aimed at demonstrating evidence of effectiveness

Jumpstart for Young Children, Boston, MA 2008-2012
Senior Program Director, Northeast Region

- Promoted within a year to oversee all programs in the Northeast, including 23 program staff, 16 higher education partnerships, 55 preschool programs, 600 volunteers, and 1,500 at-risk preschoolers
- Recruited, hired, and trained 7-12 staff annually; led quarterly professional development retreats for 35 regional and program staff
- Increased Jumpstart's regional impact by over 40% through 4 new higher education partnerships

Site Manager at Emerson College and University of Massachusetts Boston

- Recruited, trained, and managed 45 college students to complete 300 hours of service as part-time AmeriCorps members at a 92% graduation rate and 93% program satisfaction rate

Teach For America, Las Vegas, NV 2005-2008
Teacher (1st and 3rd Grades)

- Selected among top 20% of recent college graduates to serve as a Teach for America teacher successfully exceeding ambitious academic goals in an inclusive classroom of a majority English Language Learners
- Nominated for New Teacher of the Year in 2005 in the 5 th largest school district in the nation
- Participated in the district's Wiki-Teacher Task Force as a curriculum writer of first grade math standards

Division of Continuing Education, University of Colorado, Boulder 2003-2005
Marking Specialist and Interim Marketing Director

- Acted as the marketing director for a three-month summer interim by assuming full responsibility for marketing projects such as image advertising, editorial publications, and multi-channel marketing research

Andrea Fischer, Associate Director, Partner Success

Education

- Master of Program in Administration and Leadership, University of Colorado at Denver
- B.S., Elementary Education, State University of Oneonta, Oneonta, NY

Professional Experience

Curriculum Associates, LLC, Billerica, MA 2015-Present

Associate Director, Partner Success 2020-Present

Executive Account Manager 2019-2020

Lead Account Manager 2017-2019

Account Manager 2015-2017

- Provides project management for school and district-wide product implementations
- Provides account and product related customer support for incoming calls and emails from customers (teachers, specialists and school leadership) including transferred calls from Customer Service
- Reviews assigned accounts on a regular basis to review usage trends and completes regular check-ins with customers
- Addresses customer concerns and ensures the resolution of issues in a timely manner, with follow-up when appropriate

Discovery Education, Silver Spring, MD 2014-2015
Independent Contractor

Alliance for Curriculum Enhancement, Laurel, MT 2011-2014
Executive Director

- Develop, Plan, Design K-12 Curriculum and Assessments, all subjects, for 39 school districts
- Deliver Professional Development- Common Core, SBAC Information, Unit and Assessment Design, Instructional Practices, Professional Learning Communities, Data Analysis, other as requested
- Organize and Plan large scale PIR days, workshops throughout school year, and summer institutes for multiple school districts

Laurel Public Schools, Laurel, MT 2008- 2011
Director of Curriculum and Assessment

Graff Elementary School, Laurel, MT 2005-2008
Principal, K-5 (July 2006-June 2008)

4th Grade Teacher (July 2005-July 2006)

Douglas County School District, Littleton, CO 2003-2005
6th Grade Teacher

Pocantico Hills School, Sleepy Hallow, NY 2001-2002
3rd Grade Teacher

Douglas County School District, Littleton, CO 1999-2001
6th Grade Teacher

Sheridan School District, Englewood, CO 1998-1999
7th/8th Grade Teacher – Math/Science

Steven McBride, Educational Sales Consultant

Education

- M.S., Biology Science, Marshall University
- B.A., Secondary Education, Biology and General Science, Marshall University

Professional Experience

Curriculum Associates, LLC, Billerica, MA 2015-Present
Educational Sales Consultant

Achieve 3000, KY/WV 2014-2014
Regional Sales Director

Scholastic, OH/WV 2012-2014
Sales Representative

Voyager Learning, KY/WV 2010-2012
Sales Representative

- Achieved 124% of $1,468,000 sales goal in 2011.
- Achieved 95% of $1,000,000 sales goal in 2011. Voyager had only $350,000 in sales in the same territory in 2009.Place Holder

Holt, Rinehart and Winston (now Houghton Mifflin Harcourt), VA/WV 2004-2009
Sales Representative

- Exceeded sales goal by more than $2,000,000 during first and second years of sales. Exceeded sales goal by nearly $4,000,000 during third and fourth years of sales.

West Virginia Department of Education, Charleston, WV 1990-2004
Executive Director, School Improvement (2000-2004)

- Directed the statewide system of technical assistance for low performing (schools identified through No Child Left Behind standards).
- Responsibilities included supervising 10 Distinguished Educators and their work with low-performing schools.
- Directed the evaluation and revision of West Virginia's Unified County Improvement Plans. Place Holder

Executive Director, Textbook Adoption (1998-2003)

- Directed the statewide adoption of instructional materials for mathematics, science, social studies, English language arts, fine arts, foreign language, vocational agriculture, family and consumer science, health and driver education.
- Elected President of the National Association of State Textbook Administrators, July, 2000.
- Represented the West Virginia Department of Education at the National Governor's Association "Transforming Learning Through Technology: A Policy Roadmap for the Nation's Governors" meeting, July, 1999.

Coordinator, Educational Technology (1990-1998)

- Developed and coordinated the educational technology component of a comprehensive professional development program on Senate Bill 300 for state and county school board members, state department staff, county superintendents, county administrators, school principals, counselors, and teachers (3,500).
- Developed and delivered staff development on West Virginia's Instructional Goals and Objectives, including the integration of technology, to county administrators, school principals, counselors, and teachers.
- Designed, developed and coordinated the implementation of an Information Technology staff development program for all West Virginia Department of Education employees.
- Appointed to serve as a member of the Governor's Subcommittee on Improving the Use of Technology in Education.
- Consultant to the State Superintendent of Schools in the development of educational technology presentations for international, national, state, regional, and local presentations.
- Invited to present "Technology and Reteach: How does it fit?" at the 1997 International Reading Association's conference.
- Represented the West Virginia Department of Education at the National Governor's Association "Strategies for Educational Technology" meeting, December 1996.
- Responsible for the coordinated implementation of a comprehensive educational technology staff development plan for over 14,000 Kindergarten through sixth grade educators.
- As one of four members of the negotiating team, conducted research to develop strategy, identified areas to strengthen, actively participated in the annual development & renewal of State contracts with IBM and Jostens Learning, Inc.
- Assisted with the approval of more than $60,000,000 in technology purchases for WV schools.
- Administered terms and conditions of State contracts including periodic reporting of compliance and non-compliance.
- Assisted in the development of responses to litigation challenges surrounding WV's educational technology initiative, resulting in a prevailing decision in the West Virginia Supreme Court. Developed media responses to the issue & acted as media spokesperson when needed.
- Developed, proposed, and implemented a State partnership with Microsoft Corporation resulting in grants totaling more than $2,000,000.
- Assisted in the design, development, and delivery of Bell Atlantic's (Verizon) World School (Internet) statewide staff development.
- Invited to present at the 1995 National Education Computing Conference.

Wayne County Board of Education, Wayne, WV 1982-1990

High School Teacher

- Courses Instructed: Physics, Chemistry, Biology, Advanced Biology, Physical Science, Computer Literacy, Computer Programming, and Adult Computer Literacy.

Marshall University, Huntington, WV 1986-1990

Adjunct Technology Instructor

- Courses Instructed: Introduction to Computers in Education, Introduction to Computer Technology, Introduction to Word Processing, Advanced Word Processing, Applications to Spreadsheets, BASIC Computer Programming.

Avtex Fibers, Inc., Nitro, WV 1977-1980

Production Supervisor

- Responsibilities included supervising 15-20 union employees, assigning & scheduling work, quality control, coordinating engineering & maintenance needs, representing management in grievance meetings & arbitration.

Lori Chaney, Sales Director, Mid-Atlantic

Education

- M.Ed., Instructional Technology, Troy University
- M.Ed., Special Education, Ball State University
- B.A., Elementary Education, Michigan State University

Professional Experience

Curriculum Associates, LLC, Billerica, MA 2021-Present
Sales Director, Mid-Atlantic

Creative Learning Systems, Longmont, CO 2017-2021
Vice President of Sales

- Responsible for P&L
- Sales forecasting
- Sales goals and objectives for company
- Worked as a Sales Leaders to help develop conceptual ideation process and development of new educational solutions
- Worked with Marketing to develop 3-year roadmap to launch a new brand that included regional and national marketing collateral, campaigns, and developing brand awareness

Creative Learning Systems, Longmont, CO 2019-2021
Vice President of Field Sales

- Recruited to develop and grow K-12 sales team
- Responsible for recruiting and onboarding
- Developing territory strategy
- Coaching and development of field team

Great Minds, Washington, D.C. 2017-2019
Regional Sales Manager

- Recruited, hired, coached, and developed high performing field-based and inside sales team
- Developed and managed successful business strategies for $50M region
- Developed and maintained relationships with all verticals with focus on overall sales growth Coached and mentored sales team to expand territory through prospecting.
- Led sales team to achieve multimillion-dollar revenue gains.
- Focused on customer implementation and satisfaction at all stages of customer lifecycle

Great Minds, Washington, D.C. 2015-2017

Customer Success Manager

- Effectively led team of 5 Customer Success Managers in responsibilities pertaining to process development for implementation, renewal, and retention of customer base
- Created processes and clear parameters for successful tracking and delivery of curriculum materials

Panasonic Education, Newark, NJ 2015-2015

Account Solutions Manager

- Provided technology-enabled consulting services to districts
- Liaised with school districts to understand system requirements and existing business process Partnered with other specialists within Panasonic to enable solution sales knowledge across verticals
- Developed and maintained a Solutions Consulting approach that enabled sales team in pre-
- sales campaign
- Created strong relationships with counterparts in Services, Support, Marketing and other organizations to ensure alignment of organizational activities and strategies to ensure best ROI for customer base
- Built strategic relationships with key HW/SW vendors to grow vision and market share for student devices

Hapara, Inc, Palo Alto, CA 2013-2015

Director of Customer Success/Customer Solutions Manager

- Original sales team member for new and successful start-up
- Built strategic relationships with key educational HW/SW vendors to grow market share
- Achieved 103% of sales goal
- Key contributor of the $1,000,000 for single Month Club
- Grew customer base over 300% in 18 months
- Highly diverse skill set that allowed me to perform the many duties required in a start-up
- Exceeded all quotas
- Developed Customer Success processes to own relationships and monitor health of customer
- Developed analytics/KPI's to determine customer success criteria

Promethean, Inc., Alpharetta, GA 2008-2013

Teaching and Learning Consultant/Certified Professional Trainer/Online Coordinator

- Senior contributor in building Promethean's connected classroom strategy coordinating solutions across a large matrix organization
- Project manager overseeing large implementation of learning technology, including content delivery Lead Digital Classroom Evangelist working with key state senators to drive business in target states Created and implemented multiple online courses
- Created training materials utilized to execute national training objectives
- Key presenter for enterprise districts resulting in new sales opportunities.
- Established, developed and maintained strong relationships with customers and key decision makers to ensure customer retention
- Developed, organized and implemented professional development workshops at local and regional district levels
- Advised district administration on issues related to district-wide implementation
- Increased sales 310% through the design and implementation of post-sale support initiatives that generated numerous new growth opportunities
- Designed and implemented professional development to enhance competency and scale and

Harold Saunders, Professional Development Specialist

Education

- M.Ed., Administration & Supervision, Virginia Commonwealth University
- B.S., Marketing Education, Virginia Polytechnic Institute and State University
- Certifications: Myers-Briggs, Emotional Intelligence (EQ), DiSC Assessment, Santa Cruz Coaching Model

Professional Experience

Curriculum Associates, LLC, Billerica, MA 2021-Present
Professional Development Specialist

United States Department of Labor, Washington, D.C. 2018-2020
Executive Consultant

- Expanded team productivity 25% in six months by coaching staff in setting and achieving strategic goals while leveraging expertise in Myers-Briggs, Emotional Intelligence (EQ), and DiSC assessments.
- Pioneered change initiatives by facilitating 12 team building sessions around cultural proficiency, EQ, and leadership development.

Chesterfield County Public Schools, Chesterfield, VA 2006-2017
Director of Professional Development (2009-2017)

- Established and executed inaugural equity training and leadership development program for an entire 7500-employee school division by building consensus with central administrative offices and instructional team.
- Assembled strategic partnerships with institutions, businesses, and organizations, which provided school and central office leaders unlimited access to resources and field experts
- Pioneered an employee online evaluation system to guide and monitor professional growth and performance of the entire 7500-member organization.
- Defined and administered a $400,000.00 departmental budget to ensure proper support for organizational goals, objectives, and priorities.
- Established goals and objectives for professional development programs to support the division's vision, mission, and priorities
- Established collaborative partnerships with central administrative offices and the Instructional Division to identify, plan and implement staff development and leadership programs
- Designed and delivered professional development programs for all administrators and employee groups
- Directed the planning, review, modification and approval of professional development and leadership opportunities for the superintendent, administrators, teachers, instructional support providers and classified employees and for fifteen school divisions in the Region 1 Superintendents Leadership Consortium.

Assistant Director, Professional Development (2006-2009)

- Increased leadership capacity 25% by partnering with teachers, school leaders, and local universities to augment the program structure.
- Ensured attainment of mission-critical learning objectives by establishing strategic goals based on needs analysis and core competencies while coordinating efforts of accountability, curriculum, human resources (HR), and instruction staff.

Heidi Wallace, Professional Development Specialist

Education

- M.Ed., School Leadership, Harvard Graduate School of Education
- M.A., Teaching, Early Childhood Education, Georgia State University
- B.A., Political Science, English, Virginia Tech

Professional Experience

Curriculum Associates, LLC, Billerica, MA 2021-Present

Professional Development Specialist

- Facilitate, adapt, and deliver professional development to various audiences, including teachers, coaches, and leaders, on how to effectively implement Ready and i-Ready to impact classroom learning
- Provide on-site targeted support to teachers, coaches and leaders – this may range from providing lesson planning and pacing support, to helping educators analyze data and apply it to instruction, to working with leaders to identify evidence of implementation successes and challenges
- Support large district-wide implementations and adoptions of the Ready Mathematics program and the *i-Ready* online diagnostic and instruction program
- Develop and monitor revising annual professional development plans and schedules, remove barriers to implementation
- Serve as a strong contributor within internal teams, such as Sales, Account Management, PD Operations, Content Development etc., to identify barriers to implementation, propose solutions internally and externally, and escalate when needed

Hampton City Schools, Hampton, VA 2017-2021

Assistant Principal

- Executed transition to virtual learning during Covid-19 including overseeing adoption and implementation of new classroom technologies by 75 teachers and 1350 students, including the distribution of one-to-one devices
- Supported creation of curriculum and resources across multiple contents, including science, literacy and math, and coached teachers in the lesson planning process
- Cultivated and led faculty of 50 people towards ambitious goals resulting in 94% staff retention and 100% of teachers meeting annual goals for student growth
- Established and maintained a people-first culture of collaboration
- Analyzed data for multiple schools to assess need and developed and implemented strategic plans to solve complex problems and meet curricular goals

Teach for America, Remote 2015-2017

Virtual Learning Designer

- Developed pedagogical skill learning modules for teachers in 54 TFA regions
- Assessed needs of partners and presented solutions to address unique needs
- Collaborated with content design team to ensure standards alignment and infusion of equity and social emotional skills in development opportunities
- Partnered with teacher coaches and professional development facilitators to determine how development could support goal achievement

Teach for America, Houston, TX 2016-2016

Curriculum Specialist

- Programmed a professional development curriculum focusing on classroom pedagogy, content knowledge, diversity and equity, classroom management, data analysis, and family engagement
- Supported instructional development of 60 novice teachers through goal-setting, progress monitoring, observation and evaluation, and data analysis of student outcomes
- Collaborated with cross-functional teams to meet organization-wide goals and measurable targets, including developing systems for measuring student and teacher growth

Atlanta Public Schools, Atlanta, GA 2014-2016

Science Teacher

- Implemented a problem-based learning curriculum resulting in 90% student mastery toward state standards
- Designed and led school-wide professional development for 32 teachers
- Merit award given by Georgia DOE for ranking in top 10% of teachers based on measurable student growth

Gwinnett County Public Schools, Norcross, GA 2011-2014

4th Grade Teacher

- Selected from 45,000 applicants to serve in Teach For America, a national corps committed to teaching in under-resourced communities and becoming life-long leaders for educational equity for students
- Developed data-driven instructional plans to meet needs of a diverse population, resulting in 96% mastery in reading and math

Robert Walnock, Senior Manager, Professional Development

Education

- M.Ed., Education Leadership, George Mason University
- B.S., Education, University of Delaware

Professional Experience

Curriculum Associates, LLC, North Billerica, MA April 2017-Present
Senior Manager, Professional Development

- Support district-wide adoptions and implementations of the i-Ready online diagnostic and instruction program, and award-winning Ready mathematics program.
- Work with district and site leaders to develop and revise annual implementations, professional development plans, and schedules.
- Deliver professional development to teachers, coaches, and school & district leaders on how to effectively implement i-Ready and Ready to impact student growth.
- Provide on-site targeted support to teachers, coaches and leaders. Accomplished by providing lesson planning and pacing support, helping educators analyze data and apply it to instruction, and working with leaders to identify evidence of implementation successes and challenges.

Learning Without Tears, Gaithersburg, MD February 2011-April 2017
Senior Curriculum Designer

- Effectively developing innovative and well-designed digital and print educational products, training curricula, and additional resources in support of the company's overall business strategies. Outcomes achieved include:
  - Developing full-scope business cases for undertaking future product development
  - Co-inventor of the award-winning Keyboarding Without Tears (KWT) curriculum [Patent-pending]
  - Co-developer of the award-winning Get Set for School Pre-K curriculum
  - Lead developer of the KWT Educator's Guide (K-5) - Digital Citizenship curriculum
  - Project Manager of Handwriting Without Tears (HWT) workbooks - Spanish editions
  - Lead developer of Get Set for School (GSS) Pre-K Assessments
  - Project Manager for procurement of the ISTE Seal of Alignment for Readiness award (KWT)
  - Manager of the custom Content Management System (CMS) for the KWT curriculum
  - Co-developer of Handwriting & Keyboarding: Standards for the Production & Presentation of Writing
  - Designing product plans according to educational research and market need
  - Specifying requirements and selecting artwork in cooperation with the design team
  - Co-lead on the development and asset management of Electronic Teacher's Guides (eTGs)
- Guided the Product Life Cycle Management (PLCM) of our award-winning Pre-K and K-5 curriculums. Outcomes achieved include:
- Continually identifying and addressing gaps and opportunities to upgrade the product set

  - Reviewing the promotion of the curriculum with Sales, Marketing and Training teams
  - Lead quarterly Think Tank sessions to generate ideas and select new product ventures
- Subject-Matter Expert (SME) on Education Technology market, Education Leadership, Mathematics Education, numerous national and international standards and assessments.
- Ability to work cross-functionally and advocate for solutions to different audiences, including influence others without formal management authority
- Presenter at numerous national and local conferences

Beech Tree Elementary School, Falls Church, VA January 2011-February 2011
4th Grade Instructional Coach (2-Month Contract Position)

- Collaborated on the development and implementation of daily lessons and assessments involving language arts, mathematics, science and social studies to a diverse population of learners
- Provided coaching, data analysis, and staff development for the 4th grade team of classroom teachers to help strengthen and refine mathematics instruction and assessment practices

Federal Bureau of Investigations, Washington, D.C. August 2010-November 2010
FBI Special Agent (New Agent Program)

- Maintained a Top Secret/SCI (TS-SCI) Security Clearance
- Proficient in the use of: Advanced investigative techniques, interviewing and interrogation strategies, human intelligence (HUMINT) collection, fundamentals of law, ethics, firearms, behavioral science, defensive tactics, close quarters battle (CQB), intelligence reporting, and physical, electronic and mobile surveillance
- Knowledgeable in operational planning, intelligence collection and dissemination, and management of counterintelligence, counter-terrorism, criminal, and cyber investigations

Beech Tree Elementary School, Falls Church, VA August 2009-June 2010
Title 1 Mathematics Specialist & PLC Coach

- Co-managed the development and implementation of the Virginia State School Improvement Plan (SIP) to improve student achievement across all grade levels
- Responsibilities included developing innovative constructivist and experiential instruction to help students develop math concepts, higher-order thinking skills, problem solving strategies, and computational skills
- Provided coaching, data analysis, and staff development for classroom teachers to strengthen mathematics instruction and assessment practices

American Institutes for Research, Arlington, VA December 2007-June 2010
Mathematics Item Writing Consultant

- Developed confidential multiple-choice and short answer mathematical items aligned to specifications from multiple national and state assessments and research materials

Beech Tree Elementary School, Falls Church, VA August 2004-August 2009
5th Grade Teacher & Team Leader

- 2007-2008 Fairfax County Public Schools Teacher of the Year Nominee
- Team Leader for the 5th Grade Team
- Served as a co-operating teacher and mentor for James Madison University graduate students.
- Developed and implemented constructivist and experiential lessons and assessments for small and large group instruction involving language arts, mathematics, science and social studies to a diverse population of Title I learners
- Leadership roles on the Staff Development Committee, School Plan Math Committee Co-Chair, Technology Committee, School Re-construction Design Committee, and as a FCPS Math LEAD Teacher

Shannon Gaumer, Associate VP, Professional Development

Education

- M.S., Educational Technology, Azusa Pacific University
- B.S., Elementary Education, Bloomsburg University
- CLAD Certificate, University of California LA

Professional Experience

Curriculum Associates, LLC, Billerica, MA Jan 2016-Present
Associate VP, Professional Development

- Delivers training and onsite support related to *i-Ready* and *Ready Common Core* solutions
- Conducts internal professional development of new hires
- Schedules day-to-day team members working with sales, district and school leaders to coordinate training, initial planning, and ongoing support for *i-Ready* and *Ready Common Core* solutions.

Discovery Communications, Silver Springs, MD 2006-2016
Director of Professional Development, International (2010-2016)

Building Professional Capital

- Recruited, designed, and hosted training academies to build specialist capacity
- Provided continuous support through monthly meetings and consistent communication
- Analyzed survey results to ensure consistency and quality, which provided opportunities for feedback that resulted in growth of all specialists
- Established and managed protocols/procedures that built awareness of expectations, which enabled effective delivery of quality sessions

Maintain Operational Tasks

- Oversaw and submitted invoices/expenses and POs of all independent specialists
- Worked intensively with Buyer and Accounts Payable to streamline the payment process and document new processes for specialists
- Supported the finance department in creating revenue forecasts and recognized revenue reports
- Ensured all completed trainings were documented and communicated to the compliance department for revenue collection purposes
- Met monthly with compliance team to analyze open revenue and strategize on non-responsive clients

Marketing the Professional Development Story

- Created quarterly reports which spotlighted our specialists work in the field
- Supported Salesforce team as they embedded our survey tool that made our data transparent to internal team members
- Developed mechanisms to continuously gather & provide effective feedback throughout the implementation process from all stakeholders, including teachers, curriculum, and school and district administrators
- Regularly attended partnership calls and key stakeholder meetings to ensure our professional development story was thoroughly and accurately communicated

Independent Consultant (2007-2010)

- Provided professional development to educators in the implementation and use of technology through Discovery products by facilitating school, district, and state level trainings
- Conducted virtual seminars through WebEx-based webinars allowing educators access to information while eliminating the barriers of cost and travel

Educational Field Manager- DE & PA (2006)

- Equipped teachers and administrators with tools to integrate technology in the classroom by exposing them to current technological trends that correlated with and met the state standards
- Built and nurtured strong networks among educators, gathering input on products which met teacher needs
- Strategically planned national and regional events for educators to network, and planned conference presentations while collaborating with other organizations to create agendas and organize itineraries

Lincoln Elementary School, Anaheim, CA 2000-2006
Kindergarten and Second Grade Teacher

- As a Master Teacher, mentored new teachers doing internships within the classroom as part of collegiate educational program requirements
- Held accountability as a BTSA (Beginning Teacher Support & Assessment) Support Provider, providing formative assessment, individualized support and advanced content for newly credentialed district employees
- Trained teachers in the implementation and use of Discovery Educator Network by conducting school level training, and developing and sharing lesson plans
- Active member of the CARE Team, which created individualized behavior and academic plans for students struggling in the regular education classrooms
- Served as Technology Representative for the school training staff on newly adopted technical programs and software, such as accelerated reader, report card maker, and united streaming
- Piloted new software and hardware for district to assess the usability for teacher usage
- Partnered with grant committees to receive funds for technical supplies
- Grand Recipient of *Discovery Education Network* Participation Award

Maria LoRusso, Vice President, Partner Success

Education

- Master of Art, Educational Administration and Supervision, Pace University
- Master of Art, Teaching, Pace University
- B.A., History, Boston College

Professional Experience

Curriculum Associates, LLC, Billerica, MA 2009-Present
Vice President, Partner Success
Associate Vice President of Program Implementation (2017-Present)
Director of Program Implementations (2011-2017)

- Responsible for successful implementations nationally, with a renewal rate of over 90%
- Developed and currently lead a team of account managers and support staff who focus on customer retention through outstanding service and support
- Designed and implemented national training program for *i-Ready* Diagnostic & Instruction

Data and Instruction Specialist (2009-2011)

- Trained and implemented 17 accounts in 7 months
- Led post-sales account management of LGL customers in the Eastern United States
- Conducted onsite product training for new and existing users
- Initiated programs and designed training sessions which increased product usage and customer satisfaction
- Managed district level relationships to promote data driven instruction using LGL products
- Collaborated with local sales representatives to address pre-sales questions and objections
- Hosted internal meetings to train the customer service team in serving as tier 1 support for incoming calls
- Shared best practices and established national visibility for new product features
- Spearheaded the development of resources for onsite customer training
- Delivered webinar training sessions for trial and pilot accounts

Teach for America, New York, NY 2006-2008
National NWEA Manager

- Designed professional development workshops and video-based training for implementation of NWEA
- Developed web-based course on interpreting and utilizing NWEA test results to inform instruction
- Traveled nationally to train groups of up to 80 teachers and trainers
- Developed and documented test administration processes for communication to regional teams

- Coached regional and national stakeholders to anticipate, identify and resolve implementation concerns
- Worked with the NWEA to clarify implementation requirements and professional development resources
- Coordinated with trainers to monitor and encourage the effective use of structures, resources and tools related to assessment.
- Supported teachers in interpreting and using the data to make instructional decisions
- Developed project plans to organize the nationwide rollout of NWEA as the national classroom assessment

Program Director

- Observed teachers' classrooms regularly (16-20 observations per week) to provide feedback on teaching practices
- Developed 5 summative social studies assessments used by 90 teachers to measure their students' academic gains
- Supported recruitment efforts, selected teachers, cultivated staff members and collected data that informs organizational decision-making to ensure TFA increases regional and national effectiveness and impact

Curriculum Specialist

- Delivered four sessions per day to 60 teachers to ensure they meet key training objectives
- Supported effective teacher through delivery of content sessions, modeling and group practice
- Facilitated diversity discussions
- Analyzed student achievement data and worked with school team to make decisions on how to best meet teachers' needs

Christopher Columbus High School, Bronx, NY 2003-2006
History Teacher, Teach for America Corps Member

- Taught US History, Global Studies and Participation in Government in a general, bilingual, English Language Learners and inclusion classroom setting
- Led 89% of her students to pass the New York State History Regents exam, a graduation requirement
- Led 86% of her students who receive special education services to pass the New York State History Regents Competency Exam
- Received a *CiviConnections* grant, allowing students to link local historical inquiry with community-service learning
- Worked as an administrative intern to complete 300 hours of leadership, administrative and supervisory experiences

Scott Colaw, Vice President of Service Operations

Education

- B.S., Systems Science and Engineering with a focus on Business and Information Systems, University of Pennsylvania

Professional Experience

Curriculum Associates, LLC 2014-Present
Vice President, Services Operations

- Leads technical services and support teams to manage user technology experience, including:
  - Tier 1 Technical Support – providing front-line technical triage and remediation of customer issues
  - Tier 2 Technical Support – providing senior-level application support and engineering, including proactive monitoring of system usage and customer issues
  - Sales Engineering – providing technical health checks, technical training, sales support and onsite services when required
- Leads the Provisioning & Data Services team in all aspects of the customer data rostering and provisioning process, including:
  - Automated provisioning – establishing integrations with customer systems to update student and staff data in a nightly, automated process and setting up single sign-on (SSO)
  - General onboarding – for non-automated provisioning customers, insuring the timely upload of all roster data
  - Tools/Technology – responsible for the development and maintenance of supporting technology and tools utilized to deliver provisioning services
  - Reporting – responsible for the scheduling and set up of custom data exports and reporting
- Leads collaborative efforts with internal Curriculum Associates departments to facilitate:
  - The timely reporting, prioritization and resolution of system outages/defects
  - The incorporation of customer feedback and system requests into the product roadmap

Houghton Mifflin Company, Boston, MA 2006-2014
Senior Director Information Technology Services

- Responsible for a 70+ person, $6M global delivery infrastructure, including Call Center, Desktop Support, Desktop Engineering and Application Support organizations, supporting 5000+ employees and customers which represent school districts, teachers and students across the United Sates

Senior Director Information Technology Services (continued) 2006-2014

- Performed a leadership role in identification, vendor selection and implementation of an outsourced infrastructure support solution. Responsibilities included the establishment of contractual terms of solution delivery, strict language proficiency competencies and exhaustive service level metrics and performance measurements. Travelled to India on multiple occasions to evaluate vendors and interview personnel
- Responsible for the reengineering and stabilization of corporate Service Desk and Desktop support infrastructures. Established key performance metrics and operational scorecards to insure organizational focus and cultural commitment to continuous improvement
- Performed project management and executive management oversight for:
    - a large scale in-sourcing migration of all eCommerce and customer facing intranet hosting services
    - the business transformation and integration of operational support functions for multiple organizations necessitated by corporate acquisitions

AKIBIA, Westborough, MA 2000-2005
Vice President, Technical Operations

- Responsible for a 60+ person global delivery infrastructure, including Call Center, Technical Support, Education and Professional Services organizations, supporting clients which represent $90M+ in corporate revenue
- Established resource planning guidelines to effectively/efficiently manage staffing, insuring adherence to strict service level agreements
- Implemented performance metric standards and measurements to progressively manage productivity
- Established employee development and recognition programs to cultivate staff expertise, drive team performance and solidify employee loyalty. Resulted in zero voluntary attrition over a four-year period
- P/L responsibility for Education division; improved gross operating profit from 2% to 30% in twelve-month period
- Responsible for leading joint Sales efforts, developing and delivering client proposals and conducting high-level client presentations to solidify client relationships and close business
- Demonstrated confidence and willingness to make the difficult decisions required to operate a profitable business

Director-Flexhosting Delivery Services

- Responsible for establishing the infrastructure and operating procedures of a new eCRM support division; including delivery services, recruiting, hiring, performance appraisal and MBO compensation plan policies
- Responsible for the delivery of eCRM consulting and support services to clients via onsite and remote project teams
- Established delivery methodologies and communication protocols for support services
- Participated in sales meetings as the senior engagement manager for eCRM support clients

CBSI- Complete Business Solutions, Inc, Weathersfield, CT 1999-2000
Senior Director

- Performed Account Manager responsibilities for six major clients within the Boston area, representing 25 onsite consultants, 50 offshore consultants and $3.5M in annual revenue
- Responsibilities included: day-to-day management of client relationships at all levels of management and staff, QA of the consulting projects within the accounts and account profitability

Eggrock Partners, LLC, Maynard, MA 1998-1999
Regional Director

- Responsible for establishing and maintaining client relationships for the Emerging Region of this eCRM start-up, which included clients in the Southeast, Midwest and Northwest. Participated in the creation and delivery of sales presentations and software vendor demonstrations to senior client management. Business development activities were focused in the financial industry, specifically Defined Contribution/401K and Institutional Asset Management
- Managed client relationship for two large financial services/insurance companies implementing the ONYX software application. Dually responsible for the overall delivery of both projects, associated high-level quality assurance and management of the onsite development team. Actively participated in both scoping efforts, inclusive of the creation of statements of work, legal contracts and project profitability matrices and all related staffing decisions

C.W. Costello & Associates, Inc., Weathersfield, CT 1994-1998
Principal

- Served as corporate Practice Leader for the Business Process Reengineering (BPR) Practice generating revenues of $3M annually. Responsibilities included authoring and implementation of practice business plans, hiring of personnel, communication architecture across twelve national offices, development of consulting methodologies and the creation of collateral marketing materials
- Served as Management Advisory Services (MAS) Practices Chairperson for the Boston office. Responsible for the coordination and management of approximately twelve practice leaders across industry and application practices
- Actively involved in the sales and marketing efforts in the Boston office and New England region. These efforts included creating proposals, conducting client meetings and presentations, and participating in sales calls
- Member of a six-person Steering Committee for the Boston office; a 100+ person and $12M revenue office. Responsible for establishing the strategic direction, infrastructure, and business development initiatives, as well as the management and evaluation of those efforts

Sandy Batista, VP, Warehouse & Customer Service

Education

- B.S., Business Administration, Southern New Hampshire University
- A.S., Information Technology, Southern New Hampshire University
- Logistics Degree Program, Community College of the Air Force

Professional Experience

Curriculum Associates, LLC, Billerica, MA 2008-Present
VP, Warehouse & Customer Service (2018-Present)
Director of Customer Service & Warehouse Operations (2015-2018)
Customer Service Manager (2008-2015)

- Responsible for developing, organizing and coordinating customer service departmental operations and procedures in order to ensure organizational effectiveness and efficiency
- Develops a strong team environment encouraging a positive and motivated sales force
- Ensures workflow efficiencies, customer service excellence, and quality assurance
- Participates in work of subordinates to facilitate productivity and overcome difficult aspects of work

Triumph Learning, Northborough, MA 2008- 2008
Director of Quality Control

- Reviewed current policies and procedures
- Performed checks and balances on systems to ascertain strengths and weaknesses
- Worked with department heads to enhance or develop, implement, and document new processes
- Ensured that the products, services, or processes met specific requirements and were fiscally sound
- Early detection and prevention of problems using statistical process control, existing web reports, and creation of custom reports through SQLServer
- Observed employees to ensure adequate skills, or training existed, and directions are comprehended
    - Recommended corrective actions to avoid diminished quality in service and product

Options Publishing, Merrimack, NH 1999-2008
Director of Operations and IT (2006-2008)

- Installed, managed and upgraded computer systems
- Bought hardware and software
- Ensured back-up systems operated effectively
- Maintained organizational policy in regard to the information system by implementing IT policies, procedures, and best practices
- Aligned company objectives

- Inspected, evaluated, identified, and established yearly budget of software and equipment needed to maintain and improve daily operations
    - Kept costs 35% below budget for 2007
- Key leader in the launch of the Customer Relationship Management system
- 24 hours, 7 days a week full desktop support for in-house staff, regional VPs and field sales reps
- Installed Windows 2003 server in satellite office without disruption to daily operations

Director of Production (1999-2006)

- Oversight of production department, including costs and staff management
- Scheduled and prioritized work in progress
- Maintained key interface between product development department and printing vendors
- Held responsibility for both short and long term production strategy plans
    - Used current and efficient production strategies
- Performed administrative/managerial services to maintain 6 months inventory on-hand
- Met strict production deadlines to ensure 100% order completion, zero backorders

United States Air Force, Travis Air Force Base, CA 1988-1998
Inventory Management Specialist

- Supervised customer service, equipment management, and stock control departments
- Provided item and monetary accounting services for financial planning and funds control
- Established requisitions and tracked parts through manufacturing at Lockheed-Martin using an asset sourcing system
- Coordinated with communications specialist to establish requirements for a new $1.2 million dollar LAN system to support and ensure connectivity to organizations base wide
- Ensured 100 percent accountability of communications security assets, valued at $8.7 million
- Conducted weekly classes for external and internal customers on ordering procedures

Kamal Chavda, Vice President, Custom Data & Analytics

Education

- Ph.D., Public Administration, Rutgers University
- M.P.A., Public Administration, Rutgers University
- B.A., Political Science and Biology, Luther College

Professional Experience

Curriculum Associates, LLC, Billerica, MA July 2015-Present
Vice President, Custom Data & Analytics
Associate Vice President, Custom Analytics & Reporting

Boston Public Schools, Boston, MA 2008-2015
Chief Data and Accountability Officer (2013-June 2015)

- Oversaw merger of former Offices of Accountability, and Research, Assessment and Evaluation
- Defined and promoted key measures of success
- Supported a consistent Inquiry Process in Schools
- Directed Research and Evaluation to Support Continuous Improvement
- Improved data access and use while maintaining security and consistency
- Served as a member of the Superintendent's Cabinet/Executive Team

Assistant Superintendent, Research, Assessment and Evaluation (2008-2013)

University of New Hampshire, Durham, NH 2006-2008
Assistant Director, Survey Research Center

- Responsible for design and oversight of Survey Center projects, approximately $400,000 annually, including annual state-wide survey of high school seniors to gauge student experiences and aspirations.

Lecturer, Department of Political Science

- Taught graduate and undergraduate courses. Supervised MPA student capstone projects and internships. Member, MPA Program Committee. Founding member of the New Hampshire Government Finance Officers Association's Public Finance Consortium, to assist finance directors in designing indicators for cross-municipal comparisons.

Memphis City Schools, Memphis, TN 2004-2006
Research Evaluator

- Designed, administered and analyzed annual, district wide, School Climate Survey for parents, students, and staff. Designed evaluation plan for $4,240,000 School Improvement Grant funded under Title I of the No Child Left Behind Act. Conducted qualitative and quantitative evaluation of the district's Fresh Start initiative. Led district-wide professional development for academic directors, principals and school staff on use of data tools.

East Carolina University, Greenville, NC 2004
Adjunct Lecturer

Rutgers University, Newark, NJ 1997-2001
Teaching Assistant (2000-2001)
Dissertation Fellow (1999-2001)
Research Associate, The National Center for Public Productivity (1997-1998)

United Nations High Commissioner for Refugees, Nairobi, Kenya 1993
Administrative Assistant

Tuan Pallie, VP, Engineering Operations

Education

- B.A., Mathematics and Computer Science, Clark University

Professional Experience

Curriculum Associates, LLC, Billerica, MA 2022-Present
VP, Engineering Operations

goBrands, Inc. (Gopuff), Philadelphia, PA 2021-2022
Director, Engineering (Infrastructure Engineering/DevOps, SRE, AWS, Azure, Quality Engineering, Development)

- Led engineering infrastructure Operations, Quality Engineering, Development teams through a period of hyper growth where we more than tripled the engineering teams.
- Partnered closely with internal stakeholders to add support for multiple languages and currencies to enable a successful launch of Gopuff in the UK, France, and Spain under a highly aggressive timeline (4 months).
- Championed a major stabilization initiative of Gopuff's platforms and the restructure of the incident management process within the company that enabled us to have a successful holiday season and Super Bowl.
- Initiated cost management efforts, specifically Azure and AWS cost by reducing our monthly bill by 25% through reserved instances, code optimization, and contract negotiations.
- Implemented and standardized a central monitoring platform for our applications and infrastructure systems which reduced critical incidents by 20%.
- Partner with the product teams to define and align the vision and roadmap of infrastructure, Quality Engineering, BackOffice (SOR for users, products, MFC, DC,..).
- Worked closely with the security organization to define new policies and POC and implement new tooling.
- Carried out management responsibilities in accordance with the organization’s policies, procedures, and applicable laws. Responsibilities include interviewing, hiring, and training employees; planning, assigning, and directing work; appraising performance; rewarding and disciplining employees; and addressing complaints and resolving problems.
- Strong organization/project planning, time management, and change management skills across multiple functional groups and departments, and strong delegation skills involving prioritizing and reprioritizing projects and managing projects of various size and complexity.
- Created a culture of maintaining high quality at all times by executing appropriate quality plans, project plans, test strategies and processes for development activities in concert with business and project management efforts.
- Established vendor relationships and direct activity to ensure vendor related technical issues are appropriately escalated, managed and measured in accordance with proper guidelines.

SessionM Corporation (Acquired by Mastercard), Boston, MA 2019-2021

Sr. Director of Cloud Operations/DevOps (Infrastructure Engineering, AWS, Azure, Security)

- Partnered closely with internal stakeholders to build strong collaborative relationships, and foster strong engineering teams to enable a DevOps Culture, and transform positive agile engineering culture
- Worked closely with Sr. management to support the Mastercard acquisition to correct any issues found during due diligence
- Lead Mastercard integration work streams for the SessionM organization, includes; Security, Network, Corporate IT, ..
- Drive process and code quality improvements of our infrastructure as code (Terraform and Puppet) to ensure we have predictability and be able to rapidly deploy changes and scale our environments across regions in the globe. Changes are deployed multiple times a day now through our CI/CD Pipeline.
- Drive and own initiatives to reduce AWS costs against a % of revenue by improving efficiency (Autoscaling mechanisms and Architecture changes) of our deployed services across all our regions; saved over $3+ Million in 6 months..
- Implemented operational processes and procedures that includes incident managers/management and on-call rotations
- Acted as a change catalyst for improving engineering processes and driving towards best practices across the organization
- Established and manage vendor relationships; includes AWS EDP and software tool budgets by working with business operations for contract negotiations
- Instigated the setup for an architecture review board to ensure changes are reviewed across various stakeholders
- Restructured and rapidly grew the organization to support the rapid growth of the business
- Achieved and supported SOC2 Certification for the organization

SimpliVity Corporation (Acquired by HPE), Westborough, MA 2015-2019

Director, Engineering (DevOps, Release Engineering, & 3rd Party Data Centers)

- Key partner and driver in the organization to implement Agile methodologies to drive predictability and increased release frequency from 18 months for a major Product release to quarterly releases to be competitive in the market.
- Restructured the organization into an Engineering Services organization by centralizing DevOps, Labs, Build/Release engineering as there is synergy between the 3 groups; has greatly yielded organization efficiency.
- Played a role as part of the HPE acquisition due diligence to ensure any issues found were corrected promptly.
- Championed and implemented DevOps practices to evangelize the benefits to other teams in the organization.
- Managed all our core services as infrastructure as code using configuration management (Puppet/Ansible) which enabled us to do CI/CD.
- Revamped and modernized monitoring systems with the implementation of OpsView Pro, New Relic, and VictorOps to drive incidents and resolution time down.

- Hosted and Managed all engineering tools (Bitbucket, Jira, Confluence, HipChat, Artifactory, Jenkins,..)
- Closely partnered with all the Product engineering stakeholders to reduce the product build times from 8+ hours to less than 2 hours by breaking down the repository to smaller repositories and implemented a dependency map
- Collaborated with Product development, QA, and Performance teams to deliver specific network topology, new product features and enhancements as quickly as possible in the Lab infrastructure; Large IP Scope, vCenter Farm (400+ VM's),..
- Managed $50+ Million annual Capex and Opex budget for all purchasing related to server/switch hardware including data center, tooling, training and licensing purchases.
- Server/Switch Technology: HPE (Server and FlexFabric Switches), Dell, Lenovo, Cisco, Plexxi (Switches), Arista (Switches), Brocade (Switches)
- Vendor management, contract negotiations, contract renewal for all technology related 3rd party vendors.
- Coached and mentor team members to keep abreast on technology trends by attending conferences (ex: PuppetConf) thus reinforcing a learning environment while organically building talent pool and improving code quality.
- Responsible for Hire/Fire decision making as well performance planning, bonus, and merit increase management as well as performance write-ups for underperforming staff.

Epsilon, Inc., Weaverville, NC 2014-2015

Director, Technology (QA, Tools, & Automation)

- Directed and scaled a global engineering hybrid team (20+ employees) by delivering key product enhancements and increasing product quality for an enterprise SaaS-based marketing platform.
- Established and directed an offshore engineering team in India to provide 24x7 support to reduce turnaround time for platform releases.
- Worked with various teams and executives to provide a clear release directive and facilitate the execution of a results driven engineering process, by reducing product development cost and time by 25% - 50%.
- Restructured teams in various locations to increase team dynamics and focus, and hired key resources into the locations to improve team velocity.
- Revamped framework for automation testing to be able to smoke tests builds continuously, execution of nightly integration tests, and be able to execute by pointing to any environment, as needed.
- Established performance release baselines and validated various performance and scale improvements through customer specific tests.
- Key contributor and driver in the organization for establishing a release approval process and standards for Major/Patch/HF releases which drove production issues down drastically.
- Manage all QE/Stage environments and established a code drop process for the environments,
- Conducted regular bug triage meetings with teams to ensure defects are appropriately prioritized to the correct release vehicle.
- Managed all facets of immigration work for employees; Work Visas and Green cards.
- Budget responsibility for the organization; Merit increases, performance bonus, training, and vendor license.

Enservio, Inc. (Acquired by Solera), Needham, MA 2012-2014

Director, Software Engineering (Development, QA, & Content)

- Led cross-functional teams (12+ employees) to significantly enhance the core SaaS-based platform by adding key capabilities and improving the UX which resulted in 20% operations efficiency with our key customers.
- Efficiently managed operational strategies and directed software projects while consistently delivering and contributing to revenue-producing activities.
- Worked closely with product management and other business stakeholders to define a project road-map to ensure we deliver on a plan and on schedule.
- Drove lean-agile principles and practices for continuous improvements; was responsible for expanding the understanding and practice of agile throughout the organization.
- Championed in implementing an automation framework and a continuous integration system to build, deploy, and execute integration tests.
- Partnered with the architecture team to move to a SOA services platform to enable continuous deployment.
- Established software development, release management, and escalation procedures for the organization to ensure we have a cadence to continue to deliver and manage weekly releases without any major issues.
- Fostered a culture of teamwork, creativity, results-oriented by empowering teams to work on projects they are passionate about which resulted in high quality products and happy customers.
- Restructured teams to increase team dynamics and focus, and hired key senior engineers into the organization to improve team velocity.
- Successfully implemented and organized an engineering internship program for the company.
- Budget responsibility for the organization; Merit increases, performance bonus, training, and vendor license.

Online Buddies, Inc., Medford, MA 2012-2012

Senior Manager, Technology (Release Engineering, QA, & Automation/Tools)

- Improved overall quality and delivery for a high volume, leading edge social networking applications that includes web and mobile platforms.
- Led local and offshore teams that provided various services to the organization in an agile environment.
- Managed multiple projects and resource planning, metrics, and delivery of software on time.
- Championed in implementing an automation framework and a continuous integration system to build, deploy, and execute integration tests.
- Responsible for building and delivering iPhone and android apps to the store.
- Clearly defined QA process and mandated teams to be "smarter" testers and set quarterly goal improvements in getting tasks done more efficiently.
- Evaluated and implemented test tools for the organization; For Native Mobile apps, Mobile, and web.
- Created SOW and negotiated prices with vendors for outsourced work on projects with resource gaps.

PlumChoice, Inc., Lowell, MA 2011-2012

Senior Manager, Engineering (QA & Release Engineering/Management)

- Led a local and offshore, QA and release engineering organization (12+ employees) from the ground up.
- Defined a practical overall quality strategy, process for the company, and all facets of the software development life cycle.
- Managed multiple projects and ensured local and offshore teams delivered the highest quality, and in alignment with the business and the overall company strategy.
- Acted as a liaison between QA, professional services, and operations, and influenced change to achieve results for the business.
- Championed a source code branching scheme that accommodated and supported the aggressive business deliverables, and cross-team dependencies for a SaaS environment.
- Migrated, consolidated, and centralized source code repositories.
- Architected an automated continuous integration system to build, push/pull to Artifactory, test, and deploy to various servers.
- Provided operational support, proactively managed uptime, monitoring and maintenance of Development/QA/Staging/Production environments.
- Participated in Change Management meetings and owned changes submitted through the CM Process.
- Procured QA software tools, developed QA procedures, metrics, and established quality assurance methodologies/standards in order to mentor the understanding of quality objectives in the organization.
- Administered, managed, and maintained JIRA bug tracking and test case repository systems.
- Managed the hiring, retaining, inspiring, and growing talented engineers.
- Budget responsibility for the teams; Merit increases, performance bonus, training, and vendor license.

Applix, Inc. (Acquired by Cognos/IBM), Business Analytics, Westborough, MA 2005-2011
Manager, Software Engineer (QA and Release Management)

- Managed and led local and offshore teams (11+ employees) to deliver outstanding business results by anticipating and removing obstacles to enable their optimal performance, and connecting them with the company overall business strategy.
- Provided leadership mentoring employees as part of the IBM leadership program.
- Directed overall test strategy and authored test plans to validate software functionality conforms to product design specifications for all of Cognos TM1 Product suite.
- Facilitated regular cross-functional team communication to ensure product readiness.
- As part of the project executive team, provided regular project status with management; assess major risks and needs, monitor progress, and influence change when business needs arise.
- Delivered and reduced the need for high quality interim releases (Hot-Fix's), and provided process improvements (builds, packaging, and testing) in Third Level Support to increase customer satisfaction.
- Supported the adoption and acculturation of QDD/Agile and pragmatic product management.
- Maintained and administered the JIRA bug tracking and the test case repository systems.
- Ensured the continuous development and coordination of test automation within the group.
- Validated various performance and scale improvements through blitz sessions and customer specific tests through automation (LoadRunner).
- Managed and provisioned, as needed, tests systems in the lab infrastructure.
- Managed all facets of immigration work for employees, Work Visa's and Green cards
- Budget responsibility for the teams; Merit increases, performance bonus, training, and vendor license.

Appendix J – Access instructions for our *i-Ready* demonstration site

Demonstration Account Access and Login Credentials for: *i-Ready Assessment and Personalized Instruction*

Getting Started

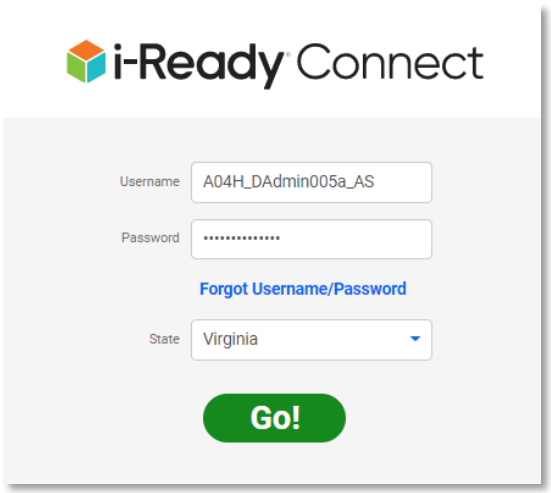
The login credentials below provide reviewers access to features and functions available to administrators, teachers, and students in *i-Ready®*.

Three Steps to Log In:

1. To get started, go to https://pd.i-ready.com.
2. Please enter the following login credentials **EXACTLY** as they appear below:

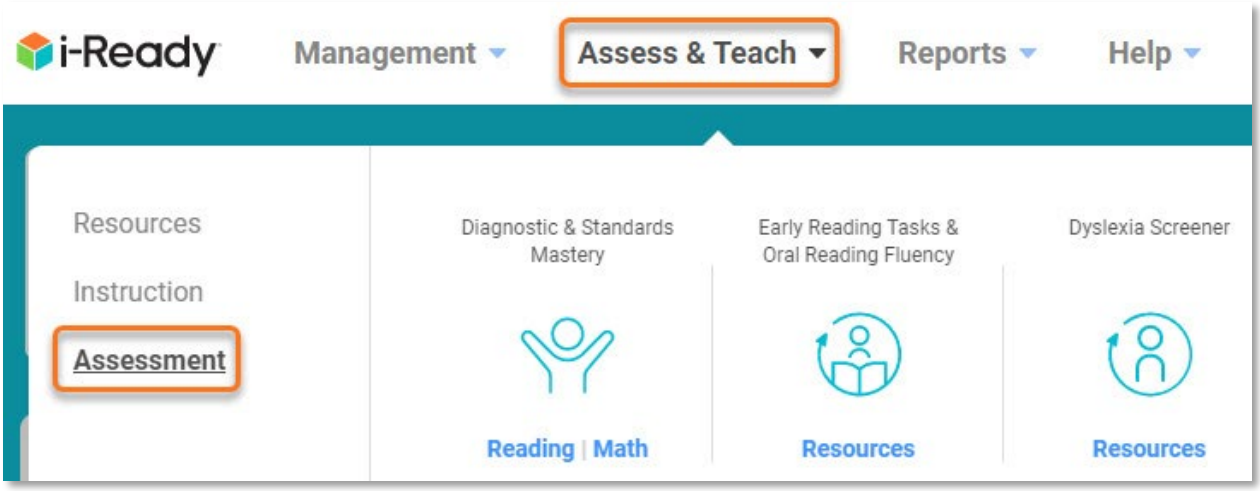
Demonstration Account Login Credentials (Valid Until 04/30/2023)		
Login Type	**Username**	**Password**
Administrator	A04H_DAdmin005a_AS	Demo4Educators
Teacher	A04H_Teacher005a_TS	Demo4Educators
Student, Grade K	A04H_GK1Student005a_DS	Demo4Educators
Student, Grade 1	A04H_Gr1Student005a_DS	Demo4Educators
Student, Grade 2	A04H_Gr2Student005a_DS	Demo4Educators
Student, Grade 3	A04H_Gr3Student005a_DS	Demo4Educators
Student, Grade 4	A04H_Gr4Student005a_DS	Demo4Educators
Student, Grade 5	A04H_Gr5Student005a_DS	Demo4Educators
Student, Grade 6	A04H_Gr6Student005a_DS	Demo4Educators
Student, Grade 7	A04H_Gr7Student005a_DS	Demo4Educators
Student, Grade 8	A04H_Gr8Student005a_DS	Demo4Educators

3. Select **Virginia** as the state in the drop-down menu, then click “Go!”.



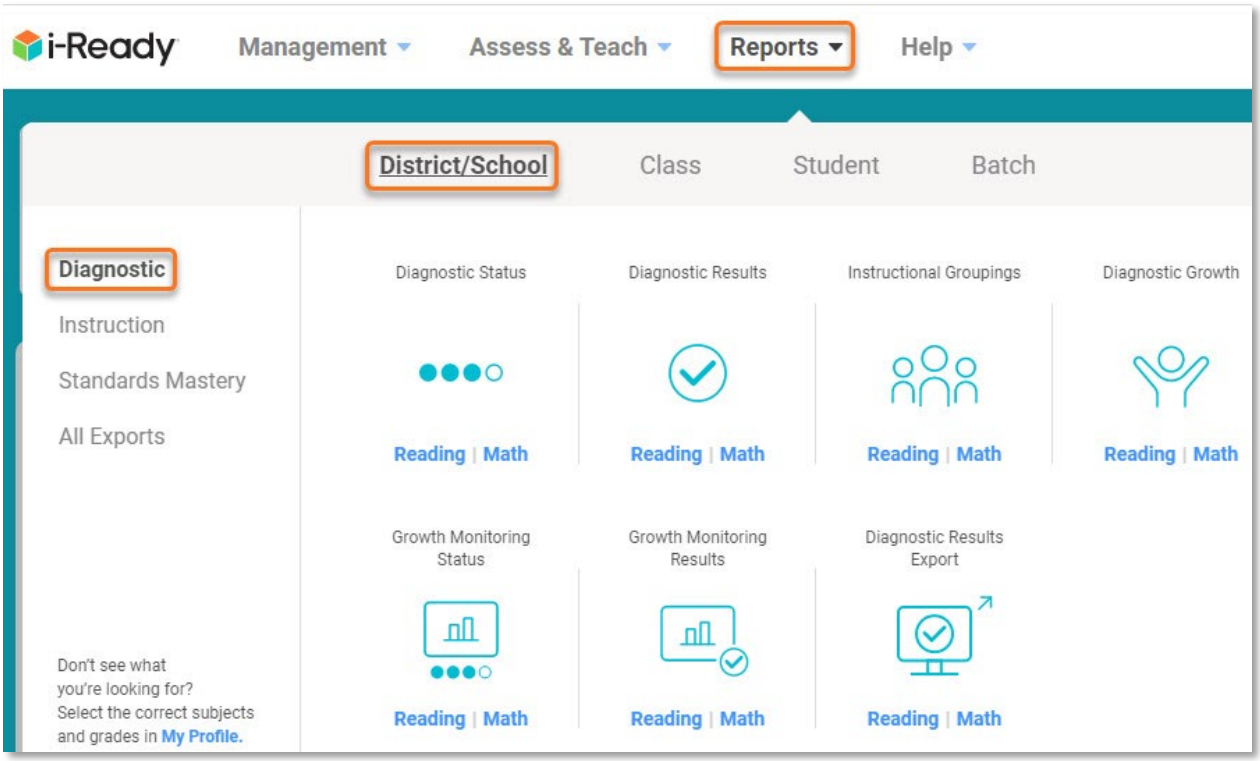
Accessing Assessments in *i-Ready*

Click on "Assess & Teach" at the top of the screen; then "Assessment" on the left side menu; then click on the desired assessment.



Accessing Reports in *i-Ready*

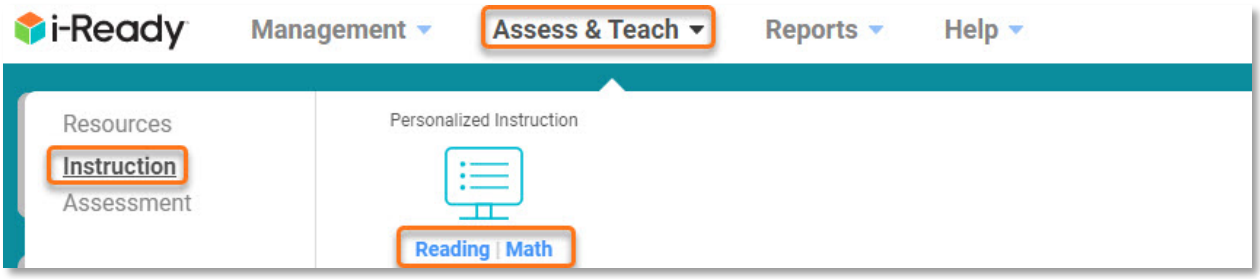
Click on "Reports" at the top of the screen; then select any data type from the left side menu and user category from the top menu to view all available reports. As an example, here are all reports available on the "District/School" level for the *Diagnostic*.



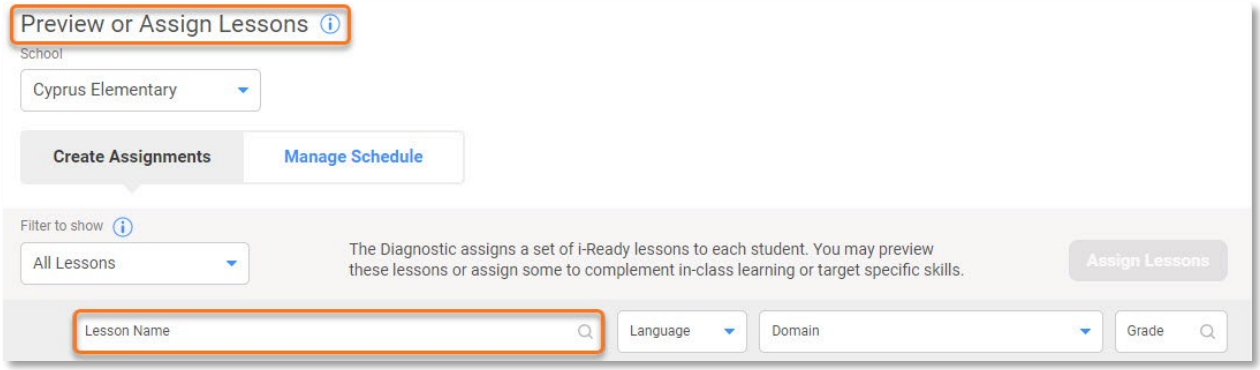
Accessing *Personalized Instruction* in *i-Ready*

To access *i-Ready Personalized Instruction* lessons, follow these steps:

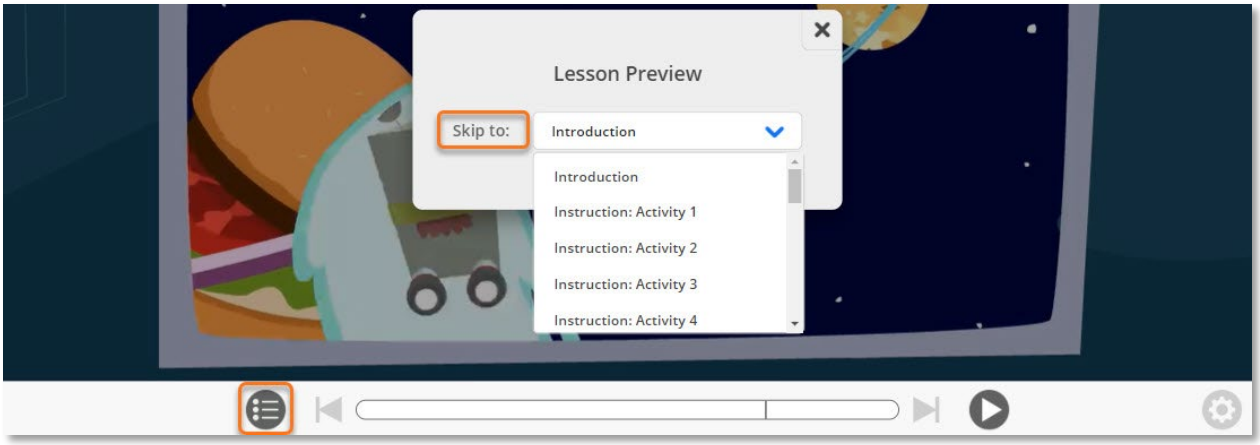
1. Click on "Assess & Teach" at the top of the screen; then "Instruction" on the left side menu; then click on the desired subject under "*Personalized Instruction*."



2. Scroll down to "Preview or Assign Lessons." (Note: If you are logged in as an Administrator, you will need to select a demo school.) Use the "Lesson Name" field to search for a lesson.



3. Once you enter a lesson, you can navigate to a specific part. Click the navigation button on the bottom left, and then scroll through the "Skip to" menu to view and select any activity.



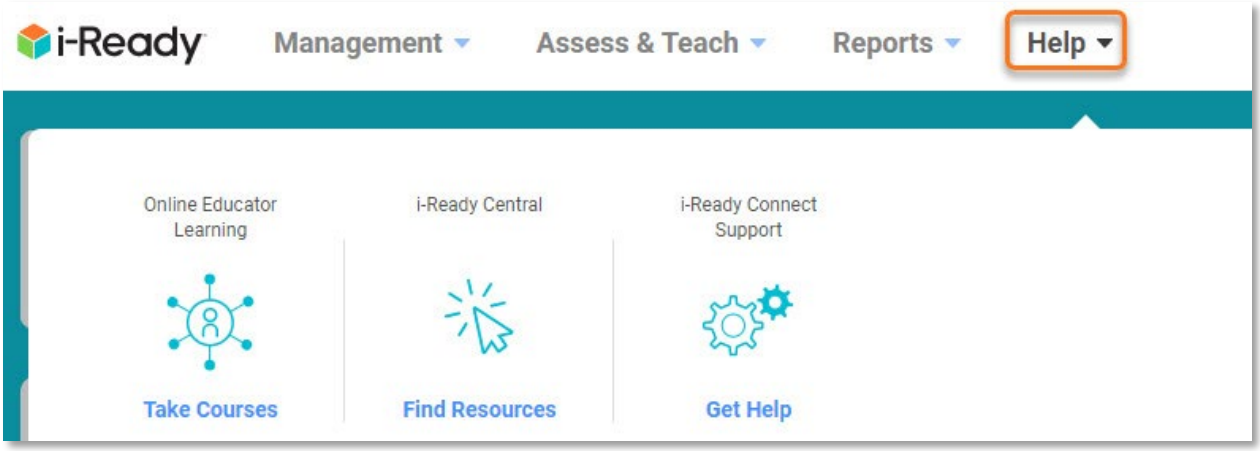
Accessing Tools for Instruction and Other Resources in *i-Ready*

Click on "Assess & Teach" at the top of the screen; then "Resources" on the left side menu; then click on the desired resource.



Accessing Help in *i-Ready*

Click on "Help" at the top of the screen to access *i-Ready Central* and other supports to help you implement *i-Ready.*



HELP: For questions about the demonstration account contact:

1. Jackie Sullivan at jsullivan@cainc.com / 978-313-1315 or
2. Noah Segal at nsegal@cainc.com / 978-947-7624

Appendix K – *i-Ready* Connect System Requirements

i-Ready Connect

System Requirements

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1. Introduction

i-Ready is a comprehensive assessment and instruction program comprising digital components such as an adaptive Grades K–12 Diagnostic and Grades K–8 Personalized Instruction. These digital components are accessed through the *i-Ready Connect* platform. This document summarizes the requirements for running *i-Ready Connect*, along with the procedures for checking your system requirements. *i-Ready Connect* provides access to *i-Ready Assessment, i-Ready Personalized Instruction, i-Ready* Learning Games*, i-Ready Classroom Mathematics, Magnetic Reading*™*,* and Teacher Toolbox.

2. Upcoming Requirements for Back to School 2022

Curriculum Associates strives to make classrooms better places for students and teachers through engaging, motivating, and interactive learning experiences. As *i-Ready* continues to improve for teachers and students, our network requirements will change over time. Below is a preview of what is changing for Back to School 2022.

2.1 Network Requirements for the 2022–2023 School Year

The minimum amount of bandwidth required to use *i-Ready* will increase to 768Kbps per active user (2Mbps per active user recommended).

Increased bandwidth will provide a better learning experience for students. It allows for smooth transitions, faster downloading of content, and a more engaging experience in *i-Ready* content. However, it is important to know that other variables can greatly influence the way the overall system performs regardless of the amount of bandwidth. These variables may include the number of concurrent users, low-performing devices, security appliances (e.g., content filter and firewall), jitter, and latency.

2.2 iPad® Support for the 2022–2023 School Year

For the best experience, we recommend a minimum of iOS 15.1 or higher with the latest OS updates to run the *i-Ready Connect for Students* app. While not recommended, students with iPads using iOS 14.8 will still be able to use the *i-Ready for Students* app until the end of the 2022–2023 school year. iOS 13 will no longer be supported.

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2.3 Supported Browsers and Operating Systems (OS) for the 2022–2023 School Year

The table below outlines the browsers and operating systems that will be supported for the 2022–2023 school year.

OS and browser requirements are listed in the following table:

Operating System	Edge®	Safari®	Firefox®	Chrome®
Windows® 7 SP1	101 or higher	N/A	98 or higher	101 or higher
Windows® 10 21H2	101 or higher	N/A	98 or higher	101 or higher
Windows® 11	101 or higher	N/A	98 or higher	101 or higher
OS X 10.14 or higher	101 or higher	N/A	98 or higher	101 or higher
OS X 10.15 or higher	101 or higher	15.1 or higher	98 or higher	101 or higher
Chrome™ OS	N/A	N/A	N/A	101 or higher

3. Current System Requirements

3.1 Supported Browsers and Operating Systems (OS)

OS and browser requirements are listed in the following table:

Operating System	Edge	Safari	Firefox	Chrome
Windows 7 SP1	*	N/A	88 or higher	90 or higher
Windows 10 20H2 October 2020 Update	90 or higher	N/A	88 or higher	90 or higher
OS X 10.13 or higher	*	**	88 or higher	90 or higher
OS X 10.14 or higher	**	14.1 or higher	88 or higher	90 or higher
Chrome OS	N/A	N/A	N/A	90 or higher

*Edge on Windows 7 and MacOS® have not been fully tested and therefore are not supported for use with *i-Ready* at this time.
**Safari 13.1 is the latest version that is allowed on OS X 10.13. This version can be used for *i-Ready* but has not been fully tested and therefore is not recommended.

For the best user experience, Curriculum Associates recommends Google Chrome for Windows, MacOS, and Chrome OS devices. Enabling auto-update is strongly recommended. For details regarding user experience with different browser versions, please see our Technical FAQ guide located here: http://i-readycentral.com/pdfs/i-ready-technical-faqs-troubleshooting-guide/.

Note: Android™ devices are blocked at this time. Additionally, *i-Ready* may occasionally block older versions of browsers as newer versions are released. Forced Dark Mode in Chrome is untested and therefore not recommended at this time.

Android™ is a trademark of Google LLC. Firefox® is a registered trademark of the Mozilla Foundation. Chrome OS™, Chrome®, and Chromebook™ are distinctive brand features of Google Inc. iPad®, MacOS®, and Safari® are registered trademarks of Apple Inc. Windows® and Edge® are registered trademarks of Microsoft Corporation.

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3.2 Firewall/Content Filter Requirements

Firewalls, content filters, proxy servers, and virus-scanning software can all significantly degrade performance, even in cases where network bandwidth appears sufficient. Because of this, we strongly recommend adding the sites below to a URL Bypass List:

Wildcard Bypass List	Full Domain Bypass List	Full Domain Bypass List, Cont'd.
• *.i-ready.com • *.vidyard.com • *.cainc.com • *.curriculumassociates.com • *.i-readyconnect.com • *.readycentral.com • *.learnosity.com • *.cloudfront.net • i-readycentral.com • readyclassroomcentral.com • teacher-toolbox.com	• login.i-ready.com • cdn.i-ready.com • cainc.i-ready.com • content.i-ready.com • connect.i-ready.com • i-readyconnect.com • help.i-ready.com • sso.i-ready.com • oel.i-ready.com • resource-library.i-ready.com • teacher-toolbox.i-ready.com • i-readycentral.com • math.readycentral.com • readyclassroomcentral.com • securemail.cainc.com • sftp.i-ready.com • teacher-toolbox.com • pd.i-ready.com • hec.i-ready.com • ca.vidyard.com • play.vidyard.com • share.vidyard.com • cdn.vidyard.com • embed.vidyard.com • support.curriculumassociates.com	• items.learnosity.com • items-va.learnosity.com • assess.learnosity.com • assess-va.learnosity.com • questions.learnosity.com • questions-va.learnosity.com • eventbus.learnosity.com • eventbus-va.learnosity.com • events.learnosity.com • reports.learnosity.com • events-va.learnosity.com • reports-va.learnosity.com • assets.learnosity.com • annotations.learnosity.com • annotations-va.learnosity.com • shared.learnosity.com • dw6y82u65ww8h.cloudfront.net • g.i-ready.com • g-api.i-ready.com • g-accounts.i-ready.com • g-statsc.i-ready.com
Ports to Allow:	443 and 80	

Note: Please also make sure info@about.curriculumassociates.com is added to your email client as a safe sender in order to receive information about product updates.

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4. *i-Ready Connect* Support for the iPad

i-Ready Connect is available to students using supported iPads through the *i-Ready Connect for Students* app.

We support a minimum of iOS 14.1 to run the *i-Ready Connect for Students* app. However, to ensure students are receiving the latest security updates, we strongly advise enabling automatic updates. *i-Ready* will no longer work with iOS 12 after July 2021. Educators will want to ensure students are using an iPad that supports iOS 14.1 or higher with the latest OS updates. Students with iPads on iOS 13.1 will still be able to use the *i-Ready Connect for Students* app, but this is not recommended.

The iPad app is free and available for download through the Apple App Store®. Note that iPad minis® are not recommended, and the *i-Ready Connect for Students* app is not accessible on other tablets nor on the iPhone®.

For single sign-on iPad users (e.g., Clever®, ClassLink™), Google Chrome will not work. Mobile Safari, the Clever app, and the ClassLink app are all supported login methods on iPads.

We fully support all iPad models that meet the following criteria:

- A8X Chipset or greater
- Supports iOS 14.1 or greater
- Screen resolution: 2048 x 1536 at 264 pixels per inch (ppi)
- Screen diagonal of 9.7 inches or greater*

Note: iOS 11 and 12 are blocked.

App Store®, iPad mini®, and iPhone® are registered trademarks of Apple, Inc. ClassLink™ is a registered trademark of ClassLink, Inc. Clever® is a registered trademark of Clever, Inc. IOS is a trademark or registered trademark of Cisco in the US and other countries and is used under license.

5. General Requirements

5.1 Browser Settings

i-Ready Connect requires the following settings for the web browser:

- JavaScript® must be enabled.
- Cookies must be enabled.
- Pop-ups must be allowed for connect.i-ready.com for teacher reports.

JavaScript® is a registered trademark of Oracle, Inc. and its affiliates.

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5.2 Minimum Computer Hardware Requirements

Curriculum Associates works toward expanding support for as many devices as possible; the listed hardware specs apply to Windows, MacOS, and Chromebook machines. Hybrid tablets or touch screen–enabled device performance may vary and cannot be listed as tested and approved devices. Please contact our Support team for questions regarding hardware support.

	Windows	MacOS	Chromebook
CPU	Intel® Core™ i3 1.7 GHz (base) or better	Intel® Core™ 2 Duo 2.0 GHz	1.6 GHz or faster **(except dual-core Exynos processors)**
Memory	4 GB or higher	4 GB or higher	2 GB or higher
Video RAM	256 MB or higher	256 MB or higher	256 MB or higher
Video Resolution	1024 x 768 or greater	1024 x 768 or greater	1024 x 768 or greater
Sound Card and Headphones/Speakers	Yes	Yes	Yes

5.3 Network Requirements

Curriculum Associates strives to bring students and educators the best content and experience possible. Our move to HTML5 has made the student learning experience more interactive and engaging than ever. As a result of this improved interaction and engagement, the minimum per active user bandwidth requirement is 512Kbps, with a recommended 1.5Mbps per active user. As we continue to improve the richness and interactivity of the student experience every year, we recommend 1.5Mbps or higher per device.

Variables such as the number of users, low-performing devices, security appliances (e.g., content filter and firewall), jitter, latency, and so on can greatly influence the way the overall system performs regardless of the amount of bandwidth. For home users, available bandwidth, access point saturation, other users in the home streaming content, as well as many other factors, can all affect *i-Ready Connect* performance.

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6. Checking Your Computers

The following webpage includes a utility that checks your computer's configuration and network health to make sure *i-Ready Connect* will run smoothly:

http://cdn.i-ready.com/systemcheck

For additional support:
Email: i-ReadySupport@cainc.com
Phone: (800) 225-0248
Mon–Fri 7:00 a.m.–9:00 p.m. ET

7. Email Communications Requirements

Email sent from Curriculum Associates (the *i-Ready* and *Ready* teams) comes from the following email domains and must be allowed by your school's or district's technology team to reliably receive implementation support and critical system updates communications:

Email Domains	Email IPs
@cainc.com **@i-ready.com** **@curriculumassociates.com** **@about.curriculumassociates.com**	**13.111.68.105**

Occasionally, email communications sent by Curriculum Associates do not reach our educators. Below are some common issues and resolutions to allow for the reliable receipt of our emails. If you believe you are not receiving email from us, please do the following:

- **Check your spam filter.** Emails from Curriculum Associates may be seen by your email client as promotional material, junk, or clutter. Checking these folders regularly and flagging our emails as coming from an approved sender will ensure educators stay current with our communications and receive the most up-to-date, best-practice implementation guidance. Look in your spam, junk, or bulk folder for the email. If it is in one of those folders, add the email address to the safe sender list in your email client.

- **Check your Gmail tabs.** If you are on a Gmail-based email system (Google Apps for Business/Education): in order to ensure you see communications emails from us, you may want to ensure they appear in your "primary" tab by dragging the email from another tab to the "primary" section.

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- **Contact your district IT team.** If the email communication is not in your spam, junk, or bulk folder, it is possible that your district's IT team is using a filtering device (firewall/content filter) that is blocking or slowing down the communication. The team will also be able to tell if the district may be blocking one or more of the IP addresses that we use for our communications. If a district blocks any of these IP addresses, educators may not receive the email from Curriculum Associates (including the *i-Ready* and *Ready* teams). Asking the IT team to allow the IP addresses and email domains listed above is the best solution to resolve blocked emails.

8. User Provisioning and Single Sign-On (SSO) Requirements

8.1 User Provisioning

Curriculum Associates has the ability to provision data using multiple methods. The preferred provisioning method is Auto Provisioning (AP), which can be accomplished in the following ways:

- District can send data to Curriculum Associates (APCSV)
- For some SISs, Curriculum Associates can access the district's database and pull the data.
- Clever Secure Sync
- OneRoster® 1.1 data standard

8.2 SSO

SSO can be performed using one of the following methods:

- Clever SSO
  - Clever Badges and Clever Portal are both supported.
- SAML Authentication
  - Examples include: ADFS, ClassLink, Stoneware, and other SSO portals that support SAML 2.0

For additional details regarding User Provisioning or SSO, please contact your account manager or sales representative.

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9. Miscellaneous Requirements

9.1 Smart Punctuation for the iPad

Smart Punctuation is a feature that replaces some punctuation with something more typographically suitable, for example "straight" quotes with “smart” quotes. As a result, students with an apostrophe (’) in their usernames may see an error message when logging in to *i-Ready Connect*, even when their usernames and passwords are inputted correctly.

This issue is a result of Apple’s implementation of Smart Punctuation and may affect some students using *i-Ready Connect* as well as other educational software accessed through an iPad. To prevent potential login issues, we encourage educators to disable “Smart Punctuation” in iOS by following these instructions:

1. Go to “Settings”
2. Go to “General”
3. Go to “Keyboards”
4. Disable “Smart Punctuation”

9.2 *i-Ready Classroom Mathematics* eBooks

For schools using our *i-Ready Classroom Mathematics* eBooks, here are the following additional requirements to integrate the eBook directly with a learning management system (LMS). The LMS must support the following IMS Global standards:

- Thin Common Cartridge (TCC)® v1.3
- Learning Tools Interoperability (LTI)® v1.0 or 1.1

9.3 Accessibility

If you want to learn more about accessibility features and accommodations:

- **Educators:** Contact your account manager or local Curriculum Associates educational consultant.
- **Families:** Contact your student’s teacher or school leader.

Thin Common Cartridge (TCC)® and Learning Tools Interoperability (LTI)® are trademarks of the IMS Global Learning Consortium, Inc. (www.imsglobal.org).

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10. Future Hardware Support

10.1 Future iPad Support

Apple typically provides approximately four to six years of support to new devices. In keeping with manufacturer support timelines, access to *i-Ready Connect* via older iPads will be blocked in future releases.

10.2 Future Chromebook Support

Some older Chromebooks are no longer eligible for auto-updates, including security fixes. While *i-Ready* will only block devices that cannot run our minimum allowed version of Chrome, as noted in the previous section, we recommend schools phase out other devices that can no longer receive security fixes, since they may be vulnerable to attacks over time.

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Provide pricing for the scenario below based off pricing being offered on Attachment I. Offerors must provide pricing and the methodology of how the price was calculated.

Name of Offeror: Curriculum Associates, LLC	Name Of Program: i-Ready Assessment Math & Reading_____	
Scenario		
Provide pricing for an annual subscription for district licenses as listed below:	Price	Methodology on how price was calculated
46 Elementary School (K-5) – the number of students per grade is: KG – 3551 Gr. 1 – 3526 Gr. 2 – 3668 Gr. 3 – 3586 Gr. 4 – 3576 Gr. 5 - 3640	$209,043.60 For i-Ready Assessment Math & Reading Per Student Licenses Refer To Quote #: 315405.18	• $7.25/student for 1Y i-Ready Assessment (Math or Reading) per student. (before applicable discounts) • Volume discounts for K-8/$7.25 licenses are offered based on the quantity of licenses purchased per PO. Volume discounts are as follows: o 5%: 1,000 – 3,000 Per Student Licenses Purchased ($6.89/License) o 10%: 3,001 – 5,000 Per Student Licenses Purchased ($6.53/License) o 15%: 5,001 – 10,000 Per Student Licenses Purchased ($6.16/License) o 20%: 10,001 or More Per Student Licenses Purchased ($5.80/License) • 9-12 i-Ready Assessment per student discounted to $4/license/subject net price. • Progress Monitoring included with i-Ready Assessment at no additional charge/$0.00. • i-Ready Assessment & Personalized Instruction also available. ($34.25/per student, per subject)
12 Middle Schools (6-8) – the number of students per grade is: Gr. 6 – 3700 Gr. 7 – 3840 Gr. 8 – 3952	$133,307.20 For i-Ready Assessment Math & Reading Per Student Licenses Refer To Quote #: 315405.19	• $7.25/student for 1Y i-Ready Assessment (Math or Reading) per student. (before applicable discounts) • Volume discounts for K-8/$7.25 licenses are offered based on the quantity of licenses purchased per PO. Volume discounts are as follows: o 5%: 1,000 – 3,000 Per Student Licenses Purchased ($6.89/License) o 10%: 3,001 – 5,000 Per Student Licenses Purchased ($6.53/License) o 15%: 5,001 – 10,000 Per Student Licenses Purchased ($6.16/License)

		o 20%: 10,001 or More Per Student Licenses Purchased ($5.80/License) • 9-12 i-Ready Assessment per student discounted to $4/license/subject net price. • Progress Monitoring included with i-Ready Assessment at no additional charge/$0.00. • i-Ready Assessment & Personalized Instruction also available. ($34.25/per student, per subject)
Provide pricing for 1 day (6 hours) of on-site professional development training for staff of 25 for above.	$174,000.00 For Professional Development at ES & MS Refer to Quote #: 315405.20	Professional Development is sold for $2,000 list per each up to 6-hour session, max of 30 participants at a time. $3,000 price on quote reflects pre-established Henrico contracted price of $1,500/session. We require 2 days of professional development per educator for new user implementations of i-Ready Assessment.
Grand Total *Please See: Quote #: 315405.20, i-Ready Assessment Math and Reading with Professional Development for grades K-8* *See Attachment J Pricing Options for cost optional site license pricing.*	$516,350.80	
Price per Student *See Pricing Options Page for Per- Student Pricing*	$17.50/Average price per student based on quote 315405.20 $5.80/License based on 20% discount for 10,001+ licenses.	

Attachment J

Pricing Options

Provide pricing as it relates to the proposed solution	Price

Price per Student	• $7.25/student for 1Y i-Ready Assessment (Math or Reading) per student. (before applicable discounts)
	• Volume discounts for K-8/$7.25 licenses are offered based on the quantity of licenses purchased per PO. Volume discounts are as follows:
	  o 5%: 1,000 – 3,000 Per Student Licenses Purchased ($6.89/License)
	  o 10%: 3,001 – 5,000 Per Student Licenses Purchased ($6.53/License)
	  o 15%: 5,001 – 10,000 Per Student Licenses Purchased ($6.16/License)
	  o 20%: 10,001 or More Per Student Licenses Purchased ($5.80/License)
	• 9-12 i-Ready Assessment per student discounted to $4/license/subject net price.
	• Progress Monitoring included with i-Ready Assessment at no additional charge/$0.00.
	• $34.25/student for 1Y i-Ready Assessment & Personalized Instruction (Math or Reading) per student K-8 (before applicable discounts)

Price per Teacher	*i-Ready Assessment is priced via per student licenses.*
Price per Classroom	*i-Ready Assessment is priced via per student licenses.*
Price per Site	**i-Ready Assessment** Price per site will vary based upon total quantity of i-Ready Assessment per student licenses purchased. *Progress Monitoring included with i-Ready Assessment at no additional charge/$0.00.* **i-Ready Assessment & Personalized Instruction Cost Option** Price for 1 year i-Ready math & reading site licenses are as follows. Tier is based on total enrollment per site. Volume discounts are also available. • < 200 Students $8,300.00 • 201-350 Students $13,900.00 • 351-500 Students $19,750.00 • 501-800 Students $23,270.00 • 801-1200 Students $29,810.00

	• 1201+ Students $33,320.00 Price for 1 year i-Ready math or reading site licenses are as follows. Tier is based on total enrollment per site. Volume discounts are also available. • < 200 Students $4,860.00 • 201-350 Students $8,300.00 • 351-500 Students $11,820.00 • 501-800 Students $13,910.00 • 801-1200 Students $17,890.00 • 1201+ Students $20,010.00
Price for District License K-5	Total: $347,043.60 Quote #: 315405.18 • $7.25/student for 1Y i-Ready Assessment (Math or Reading) per student. (before applicable discounts) • Volume discounts for K-8/$7.25 licenses are offered based on the quantity of licenses purchased per PO. Volume discounts are as follows: o 5%: 1,000 – 3,000 Per Student Licenses Purchased ($6.89/License) o 10%: 3,001 – 5,000 Per Student Licenses Purchased ($6.53/License) o 15%: 5,001 – 10,000 Per Student Licenses Purchased ($6.16/License) o 20%: 10,001 or More Per Student Licenses Purchased ($5.80/License) • 9-12 i-Ready Assessment per student discounted to $4/license/subject net price. • Progress Monitoring included with i-Ready Assessment at no additional charge/$0.00. • i-Ready Assessment & Personalized Instruction also available. See Quote #: 315405.14
Price for District License K-8	Total: $516,350.80 Quote #: 315405.20 • $7.25/student for 1Y i-Ready Assessment (Math or Reading) per student. (before applicable discounts) • Volume discounts for K-8/$7.25 licenses are offered based on the quantity of licenses purchased per PO. Volume discounts are as follows: o 5%: 1,000 – 3,000 Per Student Licenses Purchased ($6.89/License) o 10%: 3,001 – 5,000 Per Student Licenses Purchased ($6.53/License) o 15%: 5,001 – 10,000 Per Student Licenses Purchased

	($6.16/License) o 20%: 10,001 or More Per Student Licenses Purchased ($5.80/License) • 9-12 i-Ready Assessment per student discounted to $4/license/subject net price. • Progress Monitoring included with i-Ready Assessment at no additional charge/$0.00. • i-Ready Assessment & Personalized Instruction also available. See Quote #: 315405.17
Price for District License 6-8	Total: $169,307.20 Quote #: 315405.19 • $7.25/student for 1Y i-Ready Assessment (Math or Reading) per student. (before applicable discounts) • Volume discounts for K-8/$7.25 licenses are offered based on the quantity of licenses purchased per PO. Volume discounts are as follows: o 5%: 1,000 – 3,000 Per Student Licenses Purchased ($6.89/License) o 10%: 3,001 – 5,000 Per Student Licenses Purchased ($6.53/License) o 15%: 5,001 – 10,000 Per Student Licenses Purchased ($6.16/License) o 20%: 10,001 or More Per Student Licenses Purchased ($5.80/License) • 9-12 i-Ready Assessment per student discounted to $4/license/subject net price. • Progress Monitoring included with i-Ready Assessment at no additional charge/$0.00. • i-Ready Assessment & Personalized Instruction also available. See Quote #: 315405.16
1 day of Professional Development- train the trainer model (20 Elementary or Secondary Coaches, 5 Educational Specialist, + 1 additional personnel- total of 20 +) IN PERSON	N/A
1 day of Professional Development- train the trainer model (20 Elementary or Secondary Coaches, 5 Educational Specialist, + 1 additional personnel- total of 20 +) VIRTUAL	N/A
1 day of Professional Development - price per teacher IN PERSON	$50 average price per teacher, per $1,500 pre-existing Henrico contract price. Average per teacher price: $66.66. Professional Development is sold for

	$2,000 per each up to 6-hour session, max of 30 participants at a time.
1 day of Professional Development - price per teacher VIRTUAL	$50 average price per teacher, per $1,500 pre-existing Henrico contract price. Average per teacher price: $66.66. Professional Development is sold for $2,000 per each up to 6-hour session, max of 30 participants at a time.
1 day of Professional Development for Elementary or Secondary School Staff- approximately 35 – 100 IN PERSON	$1,500 pre-existing Henrico contract price per session. Up to $6,000 for 100 educators, pending number of attendees. Each $1,500 session is for up to 6 hours each, with a maximum of 30 participants at a time. Sessions can be scheduled in AM and PM “half day” blocks of up to 3 hours each.
1 day of Professional Development for Elementary or Secondary School Staff- approximately 35 – 100 VIRTUAL	$1,500 pre-existing Henrico contract price per session. Up to $6,000 for 100 educators, pending number of attendees. Each $1,500 session is for up to 6 hours each, with a maximum of 30 participants at a time. Sessions can be scheduled in AM and PM “half day” blocks of up to 3 hours each.