



Using MAP Growth Data as a Verified Data Source

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NWEA (a Division of HMH)

My Session Goals

- + Provide clarity on the Conditional Growth Index metric
- + Describe our recommendations for how MAP Growth data can be used
- + Provide actual examples
- + Answer any lingering questions

Approved Use of MAP Growth Data

- Point #1:

- Leverage the Conditional Growth Index (CGI) metric for students and/or grades-within-schools

- Point #2:

- A year of growth is defined as a CGI value greater than or equal to -0.20

Explanations forthcoming!

Using MAP Growth Data for AB1505

INTERPRETING GROWTH DATA FOR SCHOOL EVALUATION

Growth data can serve different purposes. One purpose is to target achievement gaps for students performing below grade level. Closing gaps requires setting goals higher than median “expected” growth and thus—while desirable and achievable, system-wide—are sometimes called “aspirational.”

A different purpose of growth data is to evaluate student progress for school accountability purposes. Sound school evaluation is complex. Generally accepted data-use principles underscore the **importance of multiple measures, multiple years of data, and consideration of context**. Depending on the school’s context, different data views may be useful in providing a more complete picture of student progress.

UNDERSTANDING NORMS

Growth norms provide information to help contextualize growth based on data from a nationally represented sample of test-takers. Growth norms can be used to contextualize students’ observed growth from the prior year relative to the projected growth of students in the same grade and subject, with the same starting test score, and with the same amount of instructional time between their first and last test event. This comparison of observed growth relative to projected growth can help a school understand if its students are growing at the rate we might reasonably expect.

NWEA® encourages charter schools and authorizers to contact their account manager regarding the appropriate use of data in evaluating progress. When making educational decisions using the conditional growth index (CGI,) we counsel evaluators to consider the following:

We recommend collecting student achievement and/or growth data from **multiple sources** when making educational and evaluative decisions. These may include data from state assessments, other standardized tests, or school-generated artifacts documenting student achievement. Using multiple data points helps ensure judgments made from the data are reliable and allows evaluators to monitor and consider trends in their decision-making.

When using MAP® Growth™ data in support of AB1505, the reports below are recommended. ***It is important that schools adjust the system default weeks of instruction to ensure NWEA growth norms accurately reflect the planned amount of instructional time that will occur between testing seasons.*** To demonstrate one year of growth, a school can utilize NWEA conditional growth index (CGI) values for individual students or groups of students that leverage the student or school growth norms, respectively. Student-level CGI values can be averaged to contextualize the growth of the average student among a group of students. Conversely, the average growth of a group of same-grade students can be contextualized relative to the growth of other groups of same-grade students using the school CGI metric. For both the student and school CGI values, a CGI range of -0.2 to 0.2 (or greater) could be used as an approximation of one year’s growth (or more) in a subject and indicates that the growth observed is generally consistent with the amount of growth observed by students in the same grade and subject with the same starting achievement level receiving a similar amount of instructional exposure.

Let's start with a student...

- + Third grade student taking the math test
- + Tested in the fall in the 4th week of school and in the spring in the 32nd week
- + RIT score in the fall was a 180 (26th percentile)

How much growth would be project for that student over the course of the school year?

- Grade
- Subject
- Instructional weeks
- Starting achievement level

Student projected to grow ~13 points over the year.



Interpreting Student Growth



- + This student was projected to grow ~ 13 points. What if he grew 17 points?
 - Is 17 points of growth....good?
 - If so....how good?
 - We need context to be able to answer these (and other) important questions.

Interpreting Student Growth Using the CGI

What is it?

Expresses student growth relative to the growth projection in standard deviation units

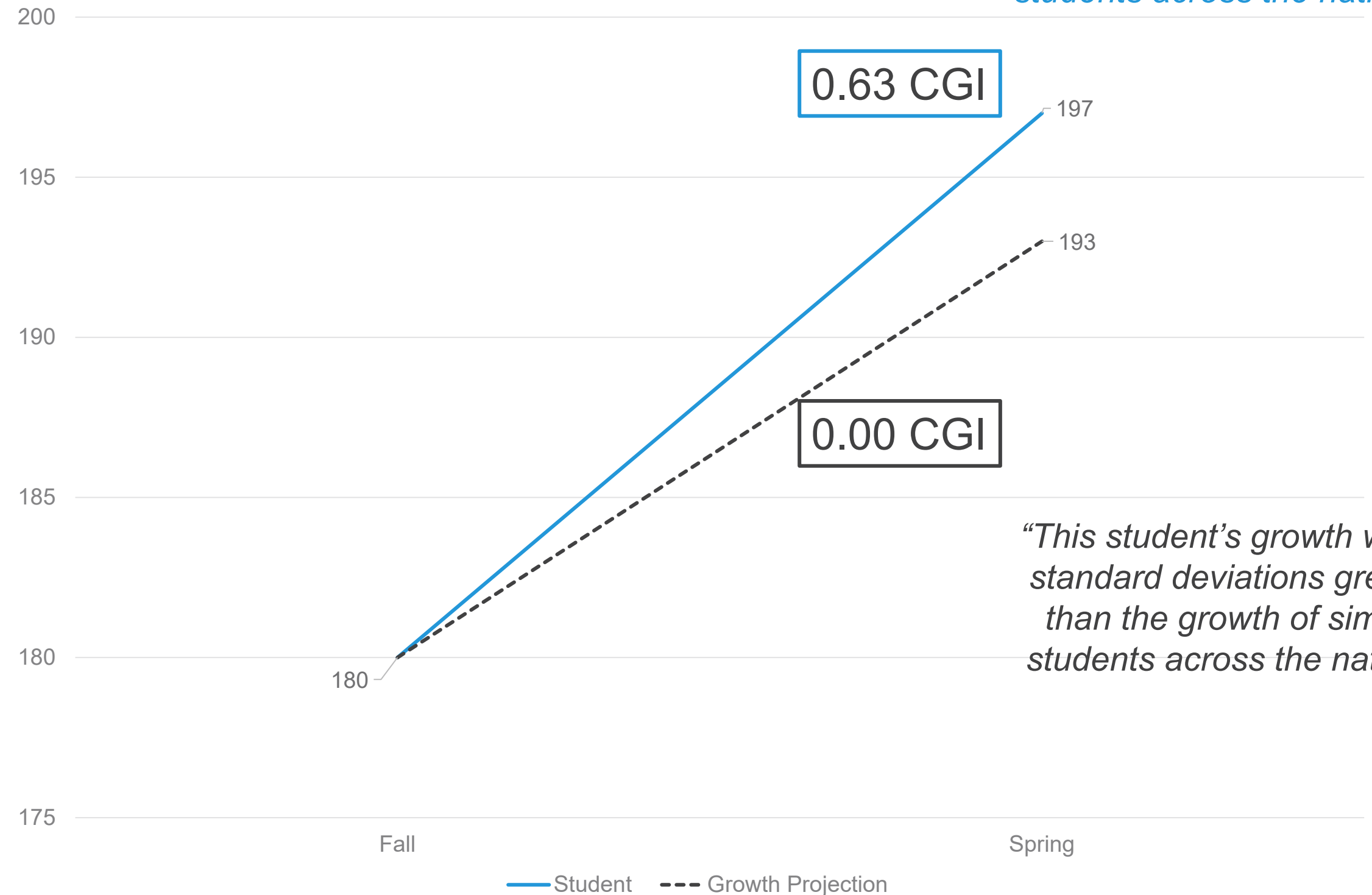


Interpreting Student Growth Using the CGI

“This student’s growth was .63 standard deviations greater than the growth of similar students across the nation.”



*Positive: Above-average
Zero: Average
Negative: Below-average*



“This student’s growth was 0 standard deviations greater than the growth of similar students across the nation.”

Interpreting Student Growth Using the CGI



Standard deviations aren't commonly used – and aren't super intuitive. Why would we recommend the use of the CGI then?

Five Key Reasons

- Continuous and highly specific
 - Provides more nuanced interpretations of the magnitude of growth
- Can be averaged
- Is comparable across grades/subjects
- Can be computed for individual students or groups of students
- Contextualizes growth across six different term pairs

Using CGI to Measure a “Year of Growth”

Conditional Growth Percentile	Conditional Growth Index
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Below Average Growth

50 th	0.0
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Average Growth

Above Average Growth

- Original guidance – use a CGI value of 0.0 as a proxy for student(s) attaining a year’s worth of growth
 - Projected Growth = Actual Growth
- Update guidance – expand the “year of growth” range from -0.2 to 0.2
 - Provide flexibility post-COVID
 - Consistency with other vendors
 - Meaningfully different from average



Student & School CGI Applications

Student CGI

- + Compares the growth of an individual student to the growth of other similar* students

- Can be used to interpret the growth of an individual student
 - *“How much did my 5th grader grow in math compared to other 5th graders?”*
- Can be averaged to interpret the growth of the average student in a group of students
 - *“What was the growth for the average 4th grade Hispanic student in math?”*

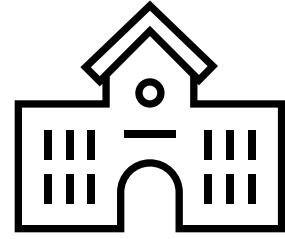
School CGI

- + Compares the growth of a group of students to the growth of other groups of similar* students

- Can be used to interpret the overall growth of a group of students
 - *“How much growth did the 3rd grade students in my school show compared to other groups of 3rd grade students?”*



Classroom #1
(3rd Grade Math)



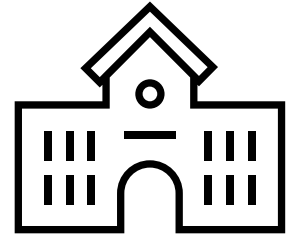
Fall-to-Spring Growth

Student A: 5 points
Student B: 7
Student C: 9
Student D: 10
Student E: 11
Student F: 12
Student G: 13
Student H: 13
Student I: 13
Student J: 14
Student K: 15
Student L: 16
Student M: 17
Student N: 19
Student O: 21 points

- Average growth = ~13 points
- A lot of variation observed at the student-level
- Student norms (and **student CGI**) account for this



Classroom #1
(3rd Grade Math)



Classroom #2
(3rd Grade Math)



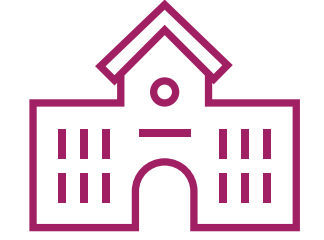
Classroom #3
(3rd Grade Math)



Classroom #4
(3rd Grade Math)



Classroom #5
(3rd Grade Math)



Fall-to-Spring Growth

Student A: 5 points
 Student B: 7
 Student C: 9
 Student D: 10
 Student E: 11
 Student F: 12
 Student G: 13
 Student H: 13
 Student I: 13
 Student J: 14
 Student K: 15
 Student L: 16
 Student M: 17
 Student N: 19
 Student O: 21 points

Average growth
~13 points

Average growth
~13.5 points

Average growth
~12.9 points

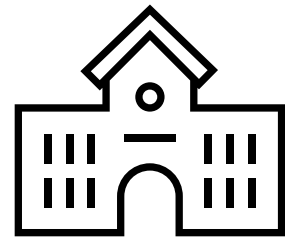
Average growth
~13.1 points

Average growth
~12.8 points

- Much less variation in growth across classrooms/schools/groups
- School norms (and **school CGI**) account for this



Classroom #1
(3rd Grade Math)



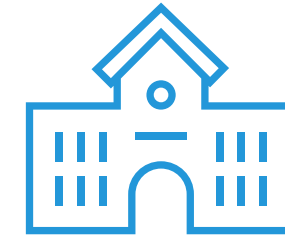
Classroom #2
(3rd Grade Math)



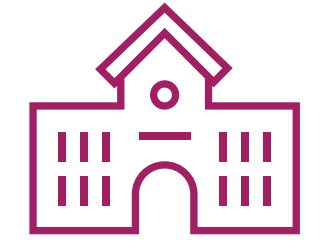
Classroom #3
(3rd Grade Math)



Classroom #4
(3rd Grade Math)



Classroom #5
(3rd Grade Math)



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Student O: 21 points

Average growth
~13 points

Average growth
~13.5 points

Average growth
~12.9 points

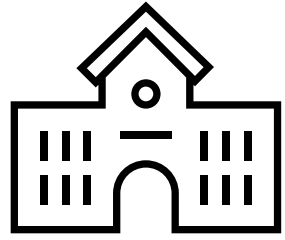
Average growth
~13.1 points

Average growth
~12.8 points

"This student's CGI value was 0.63 – his growth was above-average."



Classroom #1
(3rd Grade Math)



Classroom #2
(3rd Grade Math)



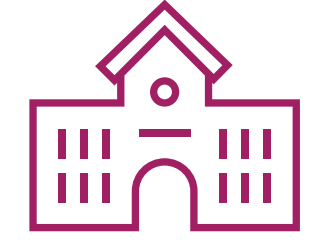
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Student O: 21 points

Average growth
~13 points

Average growth
~13.5 points

Average growth
~12.9 points

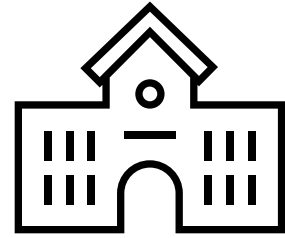
Average growth
~13.1 points

Average growth
~12.8 points

*“The average student in this classroom had a CGI value of 0.0.
This translates to average growth.”*



Classroom #1
(3rd Grade Math)



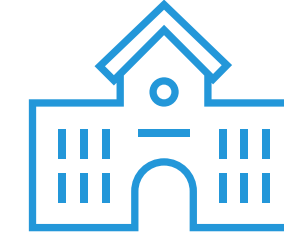
Classroom #2
(3rd Grade Math)



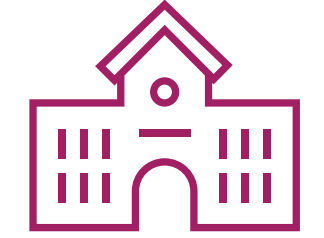
Classroom #3
(3rd Grade Math)



Classroom #4
(3rd Grade Math)



Classroom #5
(3rd Grade Math)



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Average growth
~13 points

Average growth
~13.5 points

Average growth
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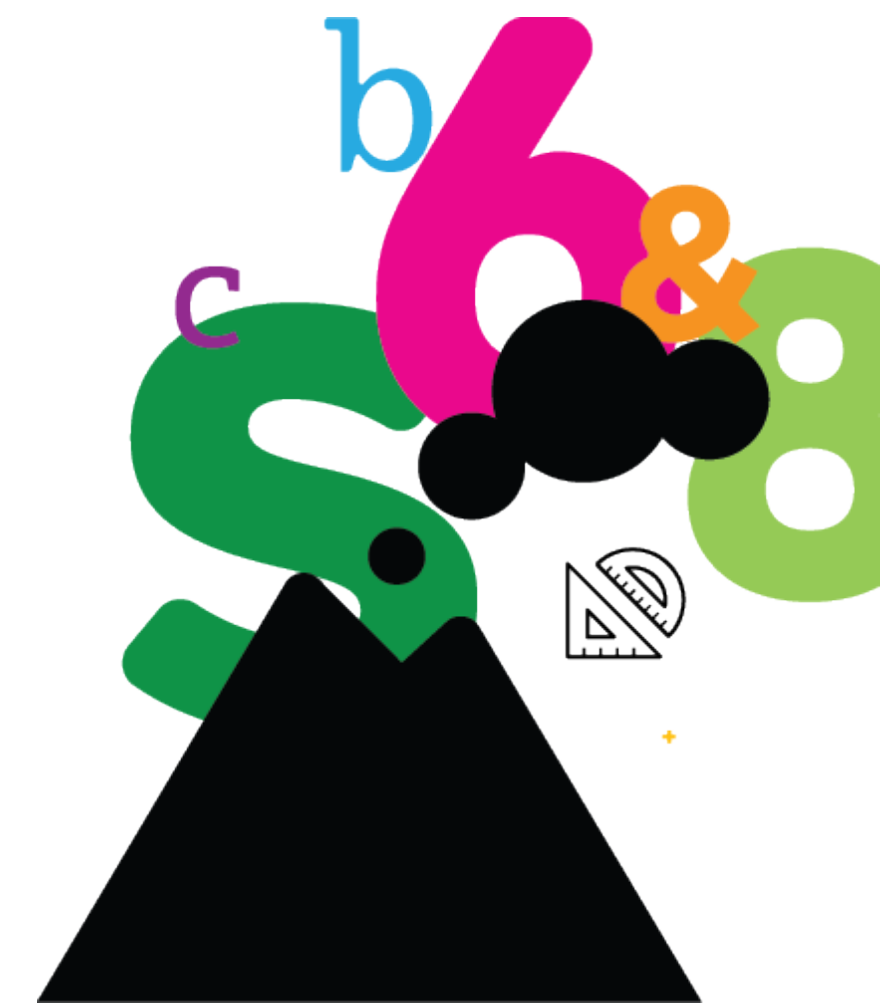
Average growth
~13.1 points

Average growth
~12.8 points

“Compared to other groups of 3rd graders (projected to grow 12.2 points), the 3rd graders in this classroom (grew 13.1 points) had a CGI value of .42. This group of students showed above-average growth.”



Reports & Interpretations



ASG Summary Report (Class-Level)



Achievement Status and Growth Summary Report

Kotifani, Jenisha
Homeroom

Term Tested: Winter 2019-2020
Term Rostered: Winter 2019-2020
District: NWEA Sample District
School: Mesa Verde Elementary School

Norms Reference Data: 2020 Norms.
Growth Comparison Period: Fall 2019 - Winter 2020
Weeks of Instruction: Start - 4 (Fall 2019)
End - 20 (Winter 2020)
Optional Grouping: None
Small Group Display: No

Math: Math K-12

Student ID	Student Name	W120 Grade	W120 Date	Achievement Status				Growth							
				Fall 2019		Winter 2020		Student		Observed		Met Projected Growth	Conditional Growth Index	Conditional Growth Percentile	
				RIT Score Range	Achievement Percentile Range	RIT Score Range	Achievement Percentile Range	Projected RIT Score	Projected Growth	Observed Growth	Growth SE				
S14468	Alexander, Douglas	5	12/2/19	215-218-221	66-72-78	213-217-221*	47-56-65*	224	6	-1	4.5	-7	No	-1.23	11
S14420	Bowman, Ramona	5	12/4/19	209-213-217*	49-60-70*	207-209-212	30-36-42	218	5	-4	4.9†	-9	No	-1.67	5
S14535	Bryant, Norma	5	12/19/19	241-244-247	98-99-99	244-247-250	97-98-99	249	5	3	4.0	-2	No ‡	-0.43	33
S14507	Bryant, Robert	5	12/3/19	226-229-232	86-90-94	234-237-240	88-92-95	234	5	8	4.6	3	Yes ‡	0.51	69
S14541	Carter, Peter	5	12/18/19	191-194-198	11-16-22	190-193-196	6-9-12	200	6	-1	4.5	-7	No	-1.29	10
S14462	Castro, Edward	5	12/6/19	205-208-211	40-47-55	211-214-217	42-48-55	214	6	6	3.9	0	Yes ‡	0.09	54
S14495	Chan, Monte	5	12/19/19	241-244-247	98-99-99	239-242-245	94-96-97	249	5	-2	4.2	-7	No	-1.43	8
S14410	Collins, Richard	5	12/6/19	225-227-230	85-88-91	235-237-240	90-92-94	233	6	10	3.5	4	Yes	0.97	83
S14527	Flores, James	5	12/16/19	198-202-206*	24-32-41*	197-200-203	13-18-23	208	6	-2	4.8†	-8	No	-1.39	8
S14449	Freeman, Marcella	5	12/17/19	207-211-215*	44-55-65*	209-213-217*	37-46-55*	216	5	2	5.4†	-3	No ‡	-0.58	28
S14550	Gonzalez, John	5	12/13/19	232-236-240*	93-96-98*	230-233-236	83-88-91	240	4	-3	5.1†	-7	No	-1.29	10
S14500	Hall, Scott	5	12/9/19	201-204-207	30-37-43	208-211-214	34-41-48	210	6	7	3.8	1	Yes ‡	0.3	62
S14521	Hill, Lawrence	5	12/20/19	220-224-228*	75-83-89*	227-230-234	77-83-88	229	5	6	5.5†	1	Yes ‡	0.19	57
S14553	Howard, Frank	5	12/5/19	198-201-205	22-30-38	205-208-211	27-34-41	207	6	7	4.7	1	Yes ‡	0.23	59
S14477	King, Jennifer	5	12/20/19	220-223-226	75-82-87	220-224-228*	64-72-79*	228	5	1	5.0†	-4	No ‡	-0.75	23
S14546	Lawson, Gina	5	12/2/19	194-198-202*	17-23-31*	203-207-212*	23-32-42*	204	6	9	5.8†	3	Yes ‡	0.48	68
S14404	Lewis, Eric	5	12/9/19	240-244-248*	98-99-99*	241-245-249*	95-97-98*	248	4	1	5.4†	-3	No ‡	-0.53	30
S14487	Martinez, Marie	5	12/3/19	203-206-209	34-42-50	208-211-214	33-41-48	212	6	5	4.5	-1	No ‡	-0.12	45

Conditional Growth Index
-1.23
-1.67
-0.43
0.51
-1.29
0.09
-1.43
0.97
-1.39
-0.58
-1.29
0.3
0.19
0.23
-0.75
0.48
-0.53
-0.12

Average student CGI value in math in this classroom is **-0.44**.

Interpretation:

“The average student in this classroom showed below-average growth in math relative to NWEA’s nationally representative norming sample.”

Explanatory Notes
 ** Due to statistical unreliability, summary data for groups of less than 10 are not shown. If Small Group Display is selected, summaries for small groups will be displayed.
 † SE on Observed Growth is greater than normal. Use metric with caution.
 * SE or SEM greater than normal. Use metric with caution.
 ‡ Indicates that projected growth falls within standard error of observed growth. [Click here for more information on Met Projected Growth.](#)

Comprehensive Data File (Student Sub-Groups)

1	A	B	F	G	I	K	L	N	O	Q	AO
1	TermName	DistrictName	StudentLastName	StudentFirstName	Student	StudentDateOfBirth	StudentEthnicGroup	StudentGender	Grade	Subject	FallToFallConditionalGrowthIndex
77	Fall 2021-2022	NWEA Sample District 63	Campbell	Jack	S10404	8/5/2015	Hispanic or Latino	M	1	Mathematics	0.69
78	Fall 2021-2022	NWEA Sample District 63	Barker	Genevieve	S10405	7/29/2015	White	F	1	Mathematics	0.56
79	Fall 2021-2022	NWEA Sample District 63	Jordan	Ronnie	S10406	12/30/2014	Native Hawaiian or Other Pacific Islander	M	1	Mathematics	-0.88
80	Fall 2021-2022	NWEA Sample District 63	Khan	Jenee	S10407	3/14/2015	American Indian or Alaska Native	F	1	Mathematics	1.48
81	Fall 2021-2022	NWEA Sample District 63	Griffin	Terry	S10408	4/16/2015	White	M	1	Mathematics	1.41
82	Fall 2021-2022	NWEA Sample District 63	Wilson	Steve	S10409	4/19/2015	Multi-ethnic	M	1	Mathematics	-0.34
83	Fall 2021-2022	NWEA Sample District 63	Bailey	Henrietta	S10410	12/6/2015	Asian	F	1	Mathematics	1.72
84	Fall 2021-2022	NWEA Sample District 63	Spencer	Krystal	S10411	12/19/2014	American Indian or Alaska Native	F	1	Mathematics	0.39
85	Fall 2021-2022	NWEA Sample District 63	Adams	Ashley	S10412	6/24/2016	Native Hawaiian or Other Pacific Islander	F	1	Mathematics	1.70
86	Fall 2021-2022	NWEA Sample District 63	Patterson	Eloise	S10413	6/14/2016	Not Specified or Other	F	1	Mathematics	-1.18
87	Fall 2021-2022	NWEA Sample District 63	Cooper	Julie	S10414	1/1/2015	Black or African American	F	1	Mathematics	-0.20
88	Fall 2021-2022	NWEA Sample District 63	Read	Shayna	S10415	11/26/2014	Hispanic or Latino	F	1	Mathematics	1.39
89	Fall 2021-2022	NWEA Sample District 63	Morgan	Doris	S10418	8/31/2014	Native Hawaiian or Other Pacific Islander	F	1	Mathematics	1.22
90	Fall 2021-2022	NWEA Sample District 63	Tuttle	Jose	S10419	5/5/2015	Hispanic or Latino	M	1	Mathematics	0.22

1	A	B	F	G	I	K	L	N	O	Q	AO
1	TermName	DistrictName	StudentLastName	StudentFirstName	Student	StudentDateOfBirth	StudentEthnicGroup	StudentGender	Grade	Subject	FallToFallConditionalGrowthIndex
476	Fall 2021-2022	NWEA Sample District 63	Diaz	Kelly	S10559	11/6/2012	Hispanic or Latino	F	4	Language Arts	1.85
481	Fall 2021-2022	NWEA Sample District 63	Morgan	Donald	S10560	4/5/2012	Hispanic or Latino	M	4	Language Arts	2.08
496	Fall 2021-2022	NWEA Sample District 63	Heinz	Hollis	S10563	3/12/2012	Hispanic or Latino	F	4	Language Arts	0.89
556	Fall 2021-2022	NWEA Sample District 63	Collins	Keith	S10575	8/11/2012	Hispanic or Latino	M	4	Language Arts	1.35
573	Fall 2021-2022	NWEA Sample District 63	Mitchell	Kelly	S10578	9/3/2012	Hispanic or Latino	F	4	Language Arts	0.28
616	Fall 2021-2022	NWEA Sample District 63	Collier	Charlotte	S10587	10/31/2011	Hispanic or Latino	F	4	Language Arts	-0.60
618	Fall 2021-2022	NWEA Sample District 63	Collier	Charlotte	S10587	10/31/2011	Hispanic or Latino	F	4	Language Arts	0.43
621	Fall 2021-2022	NWEA Sample District 63	Soto	Winifred	S10588	5/22/2012	Hispanic or Latino	F	4	Language Arts	0.69
631	Fall 2021-2022	NWEA Sample District 63	Carlin	Alishia	S10590	10/22/2011	Hispanic or Latino	F	4	Language Arts	-0.88
1278											
1279											

Average student CGI value for 4th grade Hispanic students in reading is **0.68**

Interpretation:

“The average 4th grade Hispanic student in this school showed above-average growth in reading relative to NWEA’s nationally representative norming sample*.”

*Important – this is relative to a nationally representative norm, not a Hispanic specific norm (in this particular example)

Student Growth Summary Report – Elementary School

Language Arts:
Reading

Grade (Spring 2023)	Total Number of Growth Events†	Comparison Periods						Growth Evaluated Against									
		Fall 2022			Spring 2023			Growth		Grade-Level Norms			Student Norms				
		Mean RIT Score	Standard Deviation	Achievement Percentile	Mean RIT Score	Standard Deviation	Achievement Percentile	Observed Growth	Observed Growth SE	Projected School Growth	School Conditional Growth Index	School Conditional Growth Percentile	Number of Students With Growth Projections	Number of Students Who Met Their Growth Projection	Percentage of Students Who Met Growth Projection	Student Median Conditional Growth Percentile	
K	1068	143.2	10.8	93	143.2	10.8	96	20	0.3	17.8	0.95	83	1,068	731	68	66	
1	1134	164.4	14.5	97	180.6	14.0	90	16	0.3	18.5	-0.80	21	1,134	531	47	45	
2	1109	178.2	18.5	87	195.4	15.6	90	17	0.3	15.3	0.67	75	1,109	706	64	60	
3	1143	194.8	16.7	90	206.6	14.9	90	12	0.3	11.5	0.14	55	1,143	673	59	56	
4	1077	204.9	16.1	90	213.5	14.1	88	9	0.2	8.7	-0.03	49	1,077	619	57	54	
5	1167	212.6	15.8	89	217.8	14.7	83	5	0.2	6.8	-0.73	23	1,167	555	48	46	

School Conditional Growth Index
0.95
-0.80
0.67
0.14
-0.03
-0.73

The majority of grades in this school had above-average school CGI values.

Interpretation:

“Collectively, students in the majority of grades in this school showed above-average growth in reading relative to other groups of same grade students in NWEA’s nationally representative norming sample.”

Student Growth Summary Report – Middle School

Language Arts:
Reading

Grade (Spring 2023)	Total Number of Growth Events†	Comparison Periods						Growth Evaluated Against									
		Fall 2022			Spring 2023			Growth		Grade-Level Norms			Student Norms				
		Mean RIT Score	Standard Deviation	Achievement Percentile	Mean RIT Score	Standard Deviation	Achievement Percentile	Observed Growth	Observed Growth SE	Projected School Growth	School Conditional Growth Index	School Conditional Growth Percentile	Number of Students With Growth Projections	Number of Students Who Met Their Growth Projection	Percentage of Students Who Met Growth Projection	Student Median Conditional Growth Percentile	
6	1103	218.7	13.7	90	222.2	13.7	83	4	0.2	5.3	-0.90	18	1,103	521	47	45	
7	1159	222.4	13.7	88	225.9	13.2	85	4	0.2	4.3	-0.39	35	1,159	605	52	49	
8	1183	225.8	14.7	85	227.6	15.2	77	2	0.2	3.7	-0.81	21	1,183	554	47	46	

School Conditional Growth Index
-0.90
-0.39
-0.81

All of the grades in this school had below-average school CGI values.

Interpretation:

“Collectively, students in all of the grades in this school showed below-average growth in reading relative to other groups of same grade students in NWEA’s nationally representative norming sample.”

A decorative graphic in the top right corner of the slide. It features several overlapping circles in shades of blue and teal. Some circles are solid, while others are filled with a dotted pattern. Plus signs (+) are scattered throughout the graphic, some in solid teal and others in white. The overall style is modern and abstract.

Questions?

nate.jensen@nwea.org