



MAP Growth Assessments

NWEA - Northwest Evaluation Association

Report to Littleton School Committee

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Dr. Geri Lyn Ajemian
Interim Director of Grants & Professional Development

Purpose of the Presentation/ Main Topics



- Overview of the MAP Growth Assessments
- MAP Growth testing experience
- MAP Growth test administration in LPS
- MAP Growth reports, instructional resources, & data analyses
- Highlights of LPS 2017-2018 MAP Growth data





About NWEA

- Not-for-Profit educational services organization, established by educators in 1977.
- Mission: *Partnering to help all kids learn.*
 - Help schools create a culture that uses data to make instructional decisions.
 - Promote instructional needs of every child, creating the most growth possible.
- Currently has over 7,400 partners in schools, districts, and educational agencies within 50 states and 41 countries.
- Services roughly 10 million students each year, and over half a billion for the past 40 years.

MAP Growth Assessments are:



- K-12 interim assessments
- Web-based, computer-adaptive
- Multiple-choice questions
- Grade level independent
- Aligned to State Learning Standards



Key Features of MAP Growth Assessments

- Provide valid, reliable, longitudinal data based on Equal Interval Scale.
- Provide real-time data on student mastery and achievement on standards-based content.
- Identify instructional level for each student independent of enrolled grade level.
- Link to Instruction / Learning Targets / Interventions.
- Demonstrate academic growth over time.

MAP Growth

Testing Experience for Students

- Web-based: Taken on Computer, Chromebook, or iPad.
- Audio instruction for Grade 2 Assessment to support non-readers.
- Testing accommodations are provided when appropriate.
- Untimed assessment, although the average time of completion is 45-60 minutes.
- Students given as much time as needed to complete test. ⁶



MAP Growth

Testing Experience for Students

Computer-Adaptive Dynamic:

- Questions automatically adapt to each student's instructional level based on their responses.
 - At the onset, the computer asks grade-level, baseline questions.
 - Difficulty of subsequent test items changes based on student response.
 - As a student answers correctly, questions become more difficult.
 - If a student answers incorrectly, questions become easier.
- Students are not expected to get every question correct.

MAP Growth

Testing Experience for Students

Adaptive Assessments:

- Provide a challenging test for every student.
- Each student has the same opportunity to succeed and maintain a positive attitude toward testing:
 - Experience of high achieving student.
 - Experience of struggling learner.
- Dynamically built based on achievement level of student to provide accurate and reliable information for every student.

MAP Growth Testing in Littleton



- MAP Growth tests are administered 3 times during the school year:
 - Fall
 - Winter
 - Spring

MAP Growth Grade 2:

- Reading
- Math

MAP Growth Grades 3-8:

- Reading
- Math

MAP Growth Assessment : Reading Components

- MAP Growth for Grade 2
 - Foundational Skills
 - Language and Writing
 - Literature and Informational Text
 - Vocabulary Use and Acquisition

- MAP Growth for Grades 3-8
 - Literature
 - Informational Text
 - Vocabulary Acquisition and Use



MAP Growth Assessment : Mathematics Components

- MAP Growth for Grades 2-5
 - Operations and Algebraic Thinking
 - Number and Operations
 - Measurement and Data
 - Geometry
- MAP Growth for Grades 6-8
 - Operations and Algebraic Thinking
 - The Real and Complex Number Systems
 - Geometry
 - Statistics and Probability



The RIT Scale

- MAP Growth assessments measure student achievement and growth using the RIT scale.
- RIT stands for Rausch UnIT or Rasch UnIT.
- The RIT scale is an equal interval scale like feet and inches allowing comparisons.
- RIT scores range from about 100-300.
- Every item on a MAP Growth assessment is anchored to the RIT scale.



NWEA Norms 2015

2015 READING Student Status Norms

Grade	Begin-Year		Mid-Year		End-Year	
	Mean	SD	Mean	SD	Mean	SD
K	141.0	13.54	151.3	12.73	158.1	12.85
1	160.7	13.08	171.5	13.54	177.5	14.54
2	174.7	15.52	184.2	14.98	188.7	15.21
3	188.3	15.85	195.6	15.14	198.6	15.10
4	198.2	15.53	203.6	14.96	205.9	14.92
5	205.7	15.13	209.8	14.65	211.8	14.72
6	211.0	14.94	214.2	14.53	215.8	14.66
7	214.4	15.31	216.9	14.98	218.2	15.14
8	217.2	15.72	219.1	15.37	220.1	15.73

2015 MATHEMATICS Student Status Norms

Grade	Begin-Year		Mid-Year		End-Year	
	Mean	SD	Mean	SD	Mean	SD
K	140.0	15.06	151.5	13.95	159.1	13.69
1	162.4	12.87	173.8	12.96	180.8	13.63
2	176.9	13.22	186.4	13.11	192.1	13.54
3	190.4	13.10	198.2	13.29	203.4	13.81
4	201.9	13.76	208.7	14.27	213.5	14.97
5	211.4	14.68	217.2	15.33	221.4	16.18
6	217.6	15.53	222.1	16.00	225.3	16.71
7	222.6	16.59	226.1	17.07	228.6	17.72
8	226.3	17.85	229.1	18.31	230.9	19.11



Instructional Resources: A Continuum of Learning

- Orders specific Reading, Language Usage, Mathematics skills and concepts by achievement level.
- Aligned to State Standards.
- Links to MAP Growth test scores AND to skills and concepts student may be ready to learn.
- Translates raw data from students' assessments into actionable plans for instruction and grouping.

Learning Continuum – Class View

Mathematics 2-5

Learning Continuum - Class View **21**

4th Grade Homeroom

Growth: Math 2-5 CCSS 2010 V2

Edit Display Options

Measurement and Data

Geometric Measurement and Problem Solving

[161-170](#)

No students

[171-180](#)

Perimeter/Circumference

- Determines perimeters of basic polygons with all sides labeled **23**

[J. A. Cambridge](#) Overall: 183; Goal Range: 163-177

[181-190](#)

Perimeter/Circumference

- Determines perimeters of basic polygons with all sides labeled

No students

[191-200](#)

Perimeter/Circumference

- Determines perimeters of basic polygons in which not all sides are labeled
- Determines perimeters of basic polygons with all sides labeled
- Solves real-world and mathematical problems involving perimeters of rectangles

[E. H. Orton](#) Overall: 189; Goal Range: 185-196
[L. L. Wojnarowski](#) Overall: 195; Goal Range: 191-202
[A. H. Frisino](#) Overall: 198; Goal Range: 187-199
[D. H. Engles](#) Overall: 200; Goal Range: 189-201

[201-210](#)

Perimeter/Circumference

- Determines perimeters of basic polygons in which not all sides are labeled
- Determines side lengths given the perimeter of rectangles
- Solves real-world and mathematical problems involving perimeters of rectangles

[J. L. Russell](#) Overall: 198; Goal Range: 201-213
[L. E. Kong](#) Overall: 205; Goal Range: 198-210
[J. B. Ramirez](#) Overall: 208; Goal Range: 198-210

[211-220](#)

Perimeter/Circumference

- Counts to find perimeters of complex figures
- Describes the effect on perimeter when dimensions of a polygon are changed
- Determines perimeters of basic polygons in which not all sides are labeled
- Determines side lengths given the perimeter of rectangles
- Solves real-world and mathematical problems involving perimeters of rectangles

[R. N. Sandoval](#) Overall: 212; Goal Range: 210-221
[M. G. Moyer](#) Overall: 213; Goal Range: 206-218

Learning Continuum – Test View

Mathematics 2-5

Learning Continuum - Test View **22**

Growth: Math 2-5 CCSS 2010 V2

Edit Display Options

← 111-120 121-130 131-140 141-150 151-160 161-170 171-180 181-190 191-200 201-210 211-220 →

Measurement and Data

Geometric Measurement and Problem Solving

← 161-170 Reinforce skills & concepts 171-180 Develop skills & concepts 181-190 Introduce skills & concepts →

Time

- Reads analog clocks to the nearest half hour **23**
- Reads analog clocks to the nearest hour

Time

- Completes simple conversions of units of time
- Reads analog clocks to the nearest five minutes
- Reads analog clocks to the nearest half hour
- Reads analog clocks to the nearest minute
- Solves elapsed-time word problems across either minutes or hours
- Understands time interval concepts: quarter to, half past, etc.

Time

- Completes complex conversions of more than two units of time
- Completes simple conversions of units of time
- Determines elapsed time across either minutes or hours using clocks
- Reads analog clocks to the nearest five minutes
- Reads analog clocks to the nearest half hour
- Reads analog clocks to the nearest minute
- Solves elapsed-time word problems across either minutes or hours
- Understands A.M. and P.M.
- Understands time interval concepts: quarter to, half past, etc.

Area

- Compares area of shapes
- Determines areas of figures composed of whole unit squares

Area

- Compares area of shapes
- Determines areas of figures composed of whole unit squares

Area

- Compares area of shapes
- Determines areas of figures composed of whole unit squares

Learning Continuum – Test View

Mathematics 6+, Grouped by Standard

Learning Continuum - Test View **22**

Growth: Math 6+ CCSS 2010 V2

Edit Display Options

← 181-190 191-200 201-210 211-220 **221-230** 231-240 241-250 251-260 261-270 271-280 281-290 →

Operations and Algebraic Thinking

Expressions and Equations

← **221-230** Reinforce skills & concepts 231-240 Develop skills & concepts 241-250 Introduce skills & concepts →

CCSS.Math.Content.HSA-REI.B.3: Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> • Solves for a missing value in a proportion 23 • Solves two-step linear equations with negative rational numbers • Solves two-step linear equations with positive rational numbers • Solves two-step linear inequalities | <ul style="list-style-type: none"> • Solves for a missing value in a proportion • Solves multi-step linear equations with positive and negative rational numbers • Solves two-step linear equations with negative rational numbers • Solves two-step linear equations with positive rational numbers • Solves two-step linear inequalities | <ul style="list-style-type: none"> • Represents the solutions of a compound linear inequality on a number line • Represents the solutions of a two-step linear inequality on a number line • Solves multi-step linear equations with positive and negative rational numbers • Solves multi-step linear inequalities • Solves two-step linear equations with negative rational numbers • Solves two-step linear equations with positive rational numbers • Solves two-step linear inequalities |
|---|---|--|

CCSS.Math.Content.HSA-REI.C.6: Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> • Solves a system of linear equations graphically • Writes and solves a system of linear equations involving a real-world or mathematical context | <ul style="list-style-type: none"> • Solves a system of linear equations algebraically • Solves a system of linear equations graphically • Writes and solves a system of linear equations involving a real-world or mathematical context | <ul style="list-style-type: none"> • Solves a system of linear equations algebraically • Solves a system of linear equations graphically • Writes and solves a system of linear equations involving a real-world or mathematical context |
|--|---|---|

Uses of MAP Growth & Instructional Resources

- Student / Class Level:
 - Planning for individual instruction
 - Meeting individual needs (at risk, advanced)
 - Flexible student groupings
 - Structure Curriculum
 - Monitor progress over time





Uses of MAP Growth Assessments

- School/District Level:
 - Identify at-risk learners for targeted interventions.
 - RTI Placement (Elementary Level)
 - Title I Academic Support (Elementary Level)
 - LMS Math Lab & Reading Lab
 - Inform student placement.
 - Identify school level trends.
 - Monitor school and district performance.
 - Inform resource management / staff allocation.
 - Facilitate communication with parents.

MAP Growth Reporting & Reports

- Results are available immediately to teachers and administrators.
- These results are reported using the following scores: RIT Range, RIT Growth, and Lexile (projected reading level).
- Key reports utilized by LPS:
 - Individual Student Progress Reports
 - Class/Grade Breakdown by RIT
 - Achievement Status and Growth
 - District Summary Reports
 - (Aggregates by School)





MAP Growth Reports Professional Development

■ *August 2018:*

- NWEA Account Representative meets with LPS District & School administrators to review updated MAP Growth Reports.

■ *November 2018:*

- Regional NWEA Workshop at Tyngsborough High School
- Shaker Lane, Russell Street & LMS Title I/ Instructional Specialists participate

■ *Winter 2019:*

- Planned Essential Reports training for LPS District and School Administrators

Spring 2018 Highlights: Elementary Reading

Cohort:	2028 (2nd)	2027 (3rd)	2026 (4th)	2025 (5th)
Total Students	124	130	132	121
LPS Mean RIT /Percentile	200.4	208.9	215.2	221.0
National Norm Mean RIT	188.7	198.6	205.9	211.8
Students at / above Grade Level Mean RIT	106	102	106	98
Grade Level Successes	Vocabulary Acquisition & Use	Informational Text	Informational Text	Informational Text
Areas of Improvement	Foundational Skills	Literature	Vocabulary Acquisition & Use	Vocabulary Acquisition & Use

Spring 2018 Highlights: Elementary Mathematics

Cohort:	2028 (2nd)	2027 (3rd)	2026 (4th)	2025 (5th)
Total Students	124	133	132	121
LPS Mean RIT /Percentile	207.4	209.3	220.5	230.1
National Norm Mean RIT	192.1	203.4	213.5	221.4
Students at / above Grade Level Mean RIT	107	100	95	94
Grade Level Successes	Geometry	Measurement & Data	Measurement & Data	Number & Operations
Areas of Improvement	Number & Operations	Number & Operations	Operations & Algebraic Thinking	Operations & Algebraic Thinking

Spring 2018 Highlights: Middle School Reading

Cohort:	2024 (6th)	2023 (7th)	2022 (8th)
Total Students	134	117	112
LPS Mean RIT /Percentile	224.5	227	233.5
National Norm Mean RIT	215.8	218.2	220.1
Students at or above Grade Level Mean RIT	102	94	98
Grade Level Successes	Vocabulary Acquisition & Use / Literature	Vocabulary Acquisition & Use	Vocabulary Acquisition & Use
Areas of Improvement	Informational Text	Informational Text	Informational Text



Spring 2018 Highlights: Middle School Mathematics

Cohort:	2024 (6th)	2023 (7th)	2022 (8th)
Total Students	134	117	112
LPS Mean RIT /Percentile	232	242.6	249.9
National Norm Mean RIT	225.3	228.6	230.9
Students at or above Grade Level Mean RIT	97	103	101
Grade Level Successes	Statistics & Probability / Number Systems	Statistics & Probability / Geometry	Statistics & Probability / Algebraic Thinking
Areas of Improvement	Operations & Algebraic Thinking	Operations & Algebraic Thinking	Geometry



Fall 2017 – Spring 2018 Shaker Lane Student Growth Summary

Grade & Subject	School Percentile	% Met Projection	Median Student Growth Percentile
Gr 2 Reading	97	54	51
Gr 2 Math	98	74	75

NOTES:

School Percentile = Percentage-based ranking of achievement compared to School-Level NWEA norms

Met Projection = Percent of students who met or exceeded their individual growth projections

Student Growth Percentile shows how students compare to matching peers (same grade, starting RIT) across NWEA norms.

Growth percentiles above 50% = High Growth

Fall 2017 – Spring 2018

Russell Street Student Growth Summary

Grade & Subject	School Percentile	% Met Projection	Median Student Growth Percentile
Grade 3 Reading	98	48	47
Grade 3 Math	92	42	39
Grade 4 Reading	94	59	55
Grade 4 Math	90	49	42
Grade 5 Reading	95	58	52
Grade 5 Math	89	54	53

Fall 2017 – Spring 2018

Littleton Middle School Student Growth Summary

Grade & Subject	School Percentile	% Met Projection	Median Student Growth Percentile
Grade 6 Reading	92	54	51
Grade 6 Math	80	53	52
Grade 7 Reading	95	51	51
Grade 7 Math	94	66	64
Grade 8 Reading	96	61	61
Grade 8 Math	98	59	59

NWEA / MAP Growth Information



For Further Information:

- NWEA.org / Measuring What Matters

Parent's Guide to MAP Growth

<https://www.nwea.org/resources/parents-guide-map-growth/>



www.nwea.org

