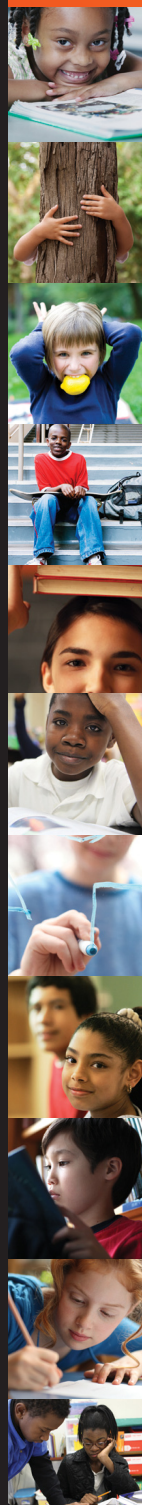


Measures of Academic Progress® | MAP®

# MAP® Basics Overview



Northwest Evaluation Association

*Partnering to help all kids learn®*

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# Measures of Academic Progress® (MAP®) Overview

The Northwest Evaluation Association™ (NWEA™) computerized adaptive assessments give educators the information they need to improve teaching and learning. Educators use the growth and achievement data from MAP assessments to develop targeted instructional strategies and plan school improvement. Results help educators make student-focused, data-informed decisions. MAP assessments are available in Reading, Language Usage, Mathematics, and Science.

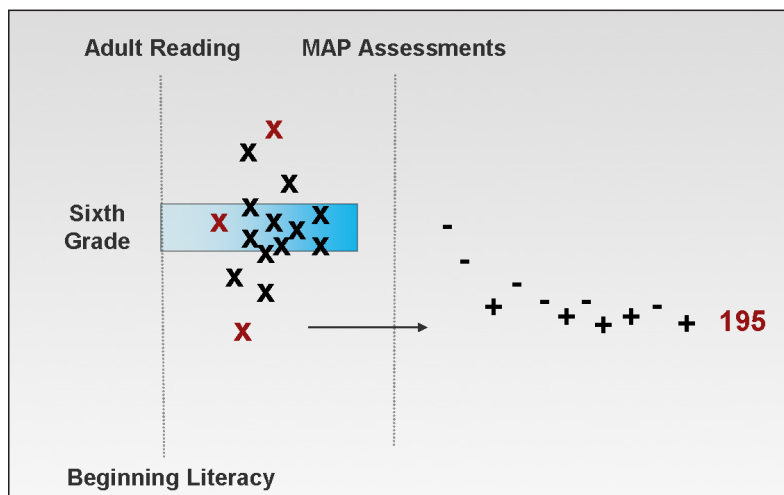
## Our Mission is *Partnering to help all kids learn*®

- We help schools create a culture that uses data to make instructional decisions.
- We provide training, professional development, and support.
- We conduct research to improve learning.
- Our purpose is growth and improvement of learning.
- We promote the instructional needs of every child, creating the most growth possible.

## The Classroom Experience

Consider the students in a typical sixth grade classroom. Imagine each “x” in the diagram below represents a student. Miguel is a student who performs quite well, excelling in reading and always scoring well on traditional standardized tests. Martin, on the other hand, is a student who struggles to keep up with the academic demands in a typical sixth grade classroom. Imagine Martin is taking a test. A traditional test would present Martin with questions appropriate for most sixth graders. As an under performer, Martin might only be able to comprehend the vocabulary in a few questions. He would quickly become frustrated and might not put forth his best effort. He could even spend the remainder of the test guessing at answers, without attempting to even read the questions.

The results from this traditional test would provide Martin’s teacher with little information that could be used to help him. Results would indicate that he was performing below the sixth-grade level, something his teacher already knew.



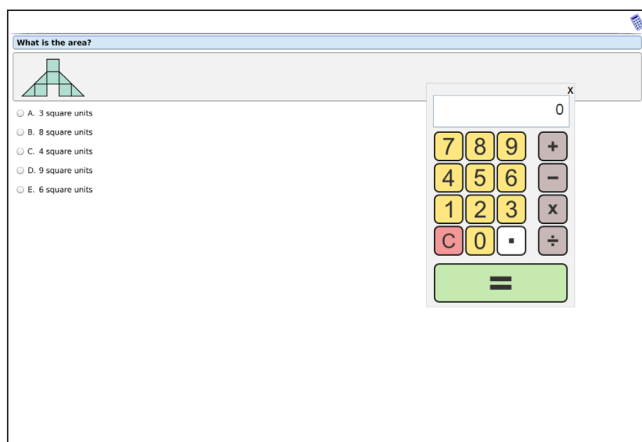
## The MAP<sup>®</sup> Experience

Instead of a traditional standardized test, Martin is taking the NWEA MAP computerized adaptive assessment. When Martin sits down at the computer for the first time, the computer will select and display a question that is appropriate for a typical sixth grader. From here on out, the computer will select questions specifically for Martin that depend on how he performs on all of the previous questions.

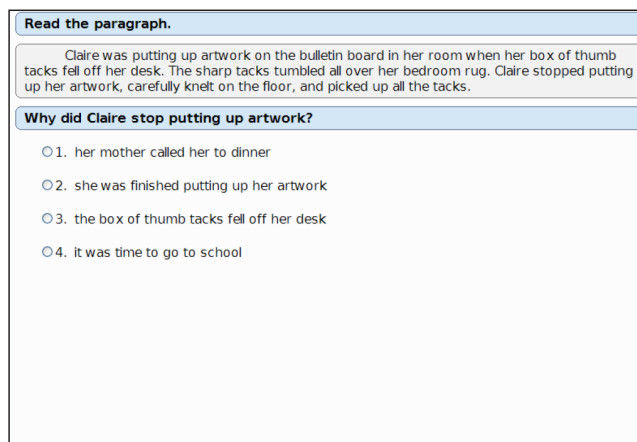
- Martin more than likely misses the first question because it is a question that is appropriate for a typical sixth grader. The computer then selects an easier question from the next goal strand and displays it.
- Martin misses this next question as well. Based on his two responses so far, the computer displays another easier question.
- This question is appropriate for Martin, and he answers it correctly. Based on his three responses so far, the computer chooses another question.
- Each time Martin answers a question, the computer scores all the questions displayed so far to select the next question.
- The computer continues to select questions, cycling through the goal strands, until Martin finishes the assessment.
- The score is immediately available to Martin and his teacher and is reported in a Rasch UNIT (RIT). Martin scored a 195 RIT on his Reading assessment.

Once Martin begins the assessment, he sees a variety of questions that assess his knowledge across all of the goal performance areas. Martin simply selects a response and proceeds to the next question.

## Sample MAP<sup>®</sup> Assessment Computer Screens



Sample question from a Mathematics test.



Sample question from a Reading test.

At the end of the assessment, a score screen displays data from that assessment.

<p>Martin Newberry          Your Reading score is 195          Your Lexile® Range is 429-579</p> <p>(Word Relationships and Meaning 190-202)          (Reading Strategies: Comprehending Literary Texts 188-200)          (Comprehending Informative and Persuasive Texts 195-207)</p> <p>The total test time was 00:31:57          All scores presented at the end of a test should be considered preliminary.</p> <p><small>Lexile® is a trademark of MetaMetrics, Inc., and is registered in the United States and abroad.</small></p>
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Sample End-of-Test Score Screen: Client-Server MAP

<p><b>Martin Newberry</b>  <b>Congratulations, you finished the test.</b></p>	
<p><b>Measurement Scale:</b>          Reading</p>	
<p><b>Overall Score:</b> 195</p>	
<p><b>Lexile® Range:</b> 429-579</p>	
<b>Goal Name:</b>	Reading Strategies, Comprehending Literary Texts
<b>Goal Score:</b>	193
<b>Goal Range:</b>	188-200
<b>Goal Name:</b>	Comprehending Informative and Persuasive Texts
<b>Goal Score:</b>	201
<b>Goal Range:</b>	195-207
<b>Goal Name:</b>	Word Relationships and Meaning
<b>Goal Score:</b>	195
<b>Goal Range:</b>	190-202
<p>The total test time was: 00:31:57          Date: 12-01-2011 Test Name: MAP: Reading 6+ CO 2009  <small>Lexile® is a trademark of MetaMetrics, Inc., and is registered in the United States and abroad.</small></p>	

Sample End-of-Test Score Screen: Web-Based MAP

The score screen provides an overall RIT score plus information about each goal performance area. This information can be directly related to *DesCartes: A Continuum of Learning*®, an instructional tool that allows educators to translate MAP scores into skills and concepts a student may be ready to learn. Reading assessments also report a student's Lexile® Range. The Lexile® Range is a score resulting from a correlation between the NWEA RIT score and the MetaMetrics® Lexile scale. More information on The Lexile® Framework for Reading is provided at the end of this document.

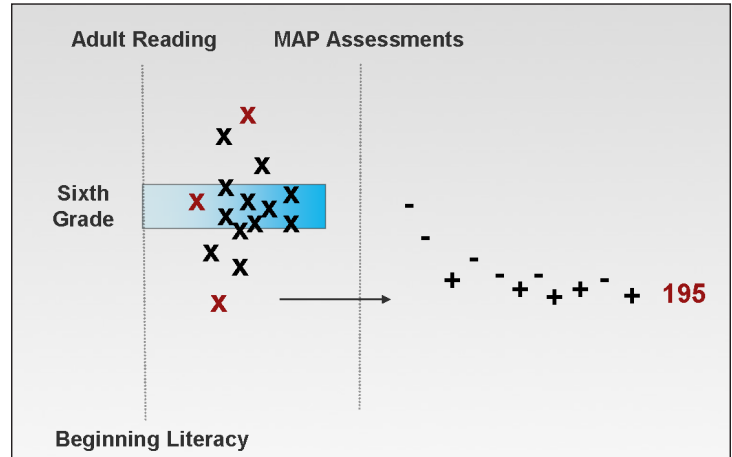
## Features of MAP® Assessments

- The assessments challenge every student. Students are not expected to get every question right or every question wrong.
- They are dynamically built based on students' achievement levels and give accurate, reliable information for every student.
- They are untimed. Students should be given as much time as needed to complete a test, as long as they are making progress.
- Assessments are given for internal accountability. They give educators information about students within the district, school, or classroom and are used by educators for their own internal purposes. Even though NWEA provides external norms, these are for a general reference.
- They measure growth and show how students are progressing, because the data can be looked at historically and are consistent from season to season.
- Results are received immediately and display at the end of the assessment.
- Students can take MAP assessments up to four times a year in Reading, Language Usage, and Mathematics in order to monitor their growth. Science assessments can be given up to three times a year.

## Meeting the Needs of All Students

As educators, we start with a curriculum scale. In reading, for example, children come to us knowing that letters have sounds attached to them. We want them to leave us able to read college-level materials. How do we do this? We assign curriculum that will be taught at each grade level.

We can assume that most schools are graded. That is, students are divided into 13 grade-level groups. Curriculum is divided in accordance with these grade levels and is articulated upward by skills. In reality, however, we have students who are performing above, at, and below this grade-level structure. So we have to ask ourselves how we foster growth for all of these students, no matter where they are performing along our curriculum scale.



The answer to that question lies in knowing where every student is performing and delivering instruction directly related to that performance level. The MAP system can help us with both by giving us scores that are accurate and reliable.

The RIT scale measures student achievement and growth. It is an equal-interval scale, like feet and inches, so scores can be added together to calculate accurate class or school averages. The scores make it possible to follow a student's educational growth from year to year.

## DesCartes: A Continuum of Learning<sup>®</sup>

*DesCartes* orders specific Reading, Language Usage, Mathematics, and Science skills and concepts by achievement level. The skills and concepts align to the content of your state standards. Please visit the Our Research

Subject: Reading		
Goal Strand: Word Analysis and Vocabulary Development		
RIT Score Range: 191 - 200		
Skills and Concepts to Enhance 181 - 190	Skills and Concepts to Develop 191 - 200	Skills and Concepts to Introduce 201 - 210
<b>Word Recognition and Vocabulary</b> <ul style="list-style-type: none"> <li>Identifies words with a long i vowel sound (example given)*</li> <li>Identifies words with a long vowel sound*</li> <li>Identifies words with a long e vowel sound*</li> <li>Identifies words with r-controlled vowels that are pronounced the same way*</li> <li>Identifies words with the same long vowel sound*</li> <li>Identifies words with the same vowel sound (digraph)*</li> <li>Chooses the word that rhymes with a given word (irregular pronunciation)*</li> <li>Determines which word contains a given number of syllables</li> <li>Divides a given word into syllables (VCCV rule, closed syllables)</li> <li>Divides words containing silent e plus suffix into syllables*</li> <li>Infers the general meaning of an adjective (term not used) based on the context given in a short paragraph (less than 3 sentences)</li> <li>Infers the general meaning of an adjective (term not used) based on the context given in a paragraph (3 or more sentences)</li> <li>Infers the general meaning of a noun (term not used) based on the context given in a sentence or paragraph</li> <li>Infers the general meaning of a verb (term not used) based on the real life/familiar context given in a sentence or short paragraph (less than 3 sentences)</li> <li>Infers the meaning of nouns based on context and sentence structure</li> <li>Infers the specific meaning of a word with multiple meanings (adjective) based on the real life/familiar context given in a sentence or paragraph*</li> <li>Infers the specific meaning of a word with multiple meanings (nouns) based on the real life/familiar context given in a sentence or paragraph</li> </ul>	<b>Word Recognition and Vocabulary</b> <ul style="list-style-type: none"> <li>Recognizes words using the hard g sound</li> <li>Recognizes words with similar ending sounds (gh)</li> <li>Identifies words with a long o vowel sound*</li> <li>Identifies words with the same vowel sound (diphthong, oi)*</li> <li>Identifies words with the same vowel sound (long a)*</li> <li>Identifies words with the same vowel sound (long e)*</li> <li>Identifies words with the same vowel sound (long u, as in oo)*</li> <li>Determines which word contains a given number of syllables</li> <li>Divides a given word into syllables (double consonant)</li> <li>Divides a given word into syllables (VCCV rule, closed syllables)</li> <li>Divides words containing two adjacent vowels (pronounced separately) into syllables*</li> <li>Infers the general meaning of an adjective (term not used) based on the context given in a short paragraph (less than 3 sentences)</li> <li>Infers the general meaning of a noun (term not used) based on the context given in a sentence or paragraph</li> <li>Infers the general meaning of a nonsense word (noun) based on the context given in a sentence</li> <li>Infers the general meaning of a verb (term not used) based on the context given in a sentence or paragraph</li> <li>Infers the meaning of adjectives based on context and sentence structure</li> <li>Infers the meaning of participles based on context and sentence structure</li> <li>Infers the meaning of verbs based on context and sentence structure*</li> <li>Infers the specific meaning of a word with multiple meanings (nouns) based on the real life/familiar context given in a sentence or paragraph</li> <li>Infers the specific meaning of a word with multiple</li> </ul>	<b>Word Recognition and Vocabulary</b> <ul style="list-style-type: none"> <li>Identifies words with the same vowel sound -or, -ur, -ir*</li> <li>Divides words containing a consonant plus -le into syllables</li> <li>Divides words containing multiple adjacent consonants into syllables*</li> <li>Divides words that follow the VCV rule for short vowels into syllables</li> <li>Divides words containing the suffix -able or -ible into syllables*</li> <li>Determines the meaning of a verb from information provided by the context of a passage</li> <li>Determines the meaning of an adjective from information provided by the context of a passage (3 or more sentences)</li> <li>Determines the meaning of an adjective from information provided by the context of a sentence or short paragraph (less than 3 sentences)</li> <li>Determines the meaning of an adverb from information provided by the context of a sentence or short paragraph</li> <li>Determines the meaning of a noun from information provided by the context of a passage</li> <li>Infers the specific meaning of a word with multiple meanings (nouns) based on the real life/familiar context given in a sentence or paragraph</li> <li>Infers the specific meaning of a word with multiple meanings (verbs) based on the real life/familiar context given in a sentence or paragraph</li> <li>Uses context clues to determine the meaning of a word within a paragraph*</li> <li>Locates the word in a passage that best fits a given definition*</li> </ul>

section of NWEA.org to find the study for your state. For easy reference, skills and concepts are organized according to the framework of your state's content standards and grouped within the continuum in ten-point RIT bands. You may access *DesCartes* from the Reports Site or MAP Administration and Reporting Center (MARC).

## MAP<sup>®</sup> Assessments Provide Students' Instructional Levels

MAP assessments are based on a continuum of skills in Mathematics, Reading, Language Usage, and Science, from low skill levels to high skill levels. We can consider them to be one long assessment in a particular subject, rather than a series of shorter assessments that assess students over specific criteria at various grade levels. MAP assessments are not tests that determine mastery. Rather, MAP assessments provide teachers with students' instructional levels. They provide a road map for determining where each student is performing relative to local or state standards, curriculum, or other criteria.

## Uses of MAP<sup>®</sup> Assessments

- Assessments can be administered to new students as they enter the district to determine appropriate instructional levels.
- Assessments can be given before parent conferences if a measure is needed at that time.
- Student growth can be monitored throughout the school year and from year to year.
- Winter assessment is useful to further monitor progress and determine if instruction needs to be adjusted.
- MAP data provides information to help inform instructional decisions.\*
- Student progress in special programs such as Title I can be monitored by using MAP data.

\* The *Comparative Data to Inform Instructional Decisions* document is available at [NWEA.org](http://NWEA.org) > Partner Support.

## Normative Data

Educators use data from the most recent *RIT Scale Norms Study* to help determine what is typical, i.e., students scoring at the 50th percentile in the *Norms Study*. We use the word "typical" rather than "should be" or "expected," as we treat each student as a unique individual. The *RIT Scale Norms Study* may be accessed from the Reports Site and MARC.

2011 READING STATUS NORMS (RIT VALUES)			
Grade	Beginning-of-Year Mean	Middle-of-Year Mean	End-of-Year Mean
K	142.5	151.0	157.7
1	160.3	170.7	176.9
2	175.9	183.6	189.6
3	189.9	194.6	199.2
4	199.8	203.2	206.7
5	207.1	209.8	212.3
6	212.3	214.3	216.4
7	216.3	218.2	219.7
8	219.3	221.2	222.4
9	221.4	221.9	222.9
10	223.2	223.4	223.8
11	223.4	223.5	223.7

This table was extracted from the *Normative Data* document found at [NWEA.org](http://NWEA.org) > Partner Support.

## Growth Norms

From the *RIT Scale Norms Study*, we know that low-performing students and high-performing students don't tend to grow at the same rate. A simple grade-level growth average doesn't capture this information and may lead us to inaccurate decisions about students.

As shown in the table below, we can see that students scoring a 160 fall RIT showed an average (mean) RIT growth of 11.6 after 28 weeks of instruction. Students scoring a 210 in the fall, showed an average RIT growth of 7.1 after 28 weeks of instruction.

Grade 3 Reading: 4 <sup>th</sup> Week of Instruction to 28 <sup>th</sup> Week of Instruction							
Starting RIT	160	170	180	190	200	210	220
Mean Growth	11.6	10.7	9.8	8.9	8.0	7.1	6.2

From the *RIT Scale Norms Study*, Grade 3 Reading

## NWEA™ Resources

### [NWEA.org > Partner Support](#)

For the latest updates, documents and resources relating to MAP Administration, our partner support services, and other NWEA products and services, please visit the Partner Support section of [NWEA.org](#).

### [NWEA.org > SPARK Community](#)

SPARK is an online community of educators coming together to ignite kid-centric education. SPARK members can learn from one another and share what's working. The SPARK Community has forums and blogs where you can discuss ideas with fellow educators, NWEA staff, and leaders throughout the education community. You can discover and share lesson plans and other resources for using MAP data to its fullest extent. Visit [NWEA.org](#) to register for the SPARK Community.

## Other Web Resources

Along with reading scores, NWEA also reports Lexile® ranges. With its unique reading scale and corresponding tools, The Lexile® Framework for Reading helps educators and parents select reading materials that appropriately challenge students, thereby guiding the development of stronger reading skills. More information can be found at [Lexile.com](#).

Find NWEA on Facebook or follow us at [twitter.com/NWEA](#) to get updates from NWEA and the SPARK Community and stay current with the latest education headlines.





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