NWEA
Northwest Evaluation Association
Partnering to help all kids learn

Measures of Academic Progress™ (MAP) Basics Overview

This document will give partner districts an overview of the basics of the MAP™ system in order to develop basic knowledge in Northwest Evaluation Association's (NWEA) assessments.

The NWEA's computerized adaptive tests provide educators the information they need to improve teaching and learning. Educators use the growth and achievement data from MAP tests to develop targeted instructional strategies and to plan school improvement. MAP test results help educators make student-focused, data-driven decisions. MAP tests are available in Reading, Language Usage, Mathematics, and Science.

NWEA's Mission is "Partnering to help all kids learn."

- We help schools create a culture that uses data to make instructional decisions.
- We provide training 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 the first 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 not provide his teacher any information that could be used to help Martin. They would only indicate that he was performing below the sixth grade level, something his teacher already knew.
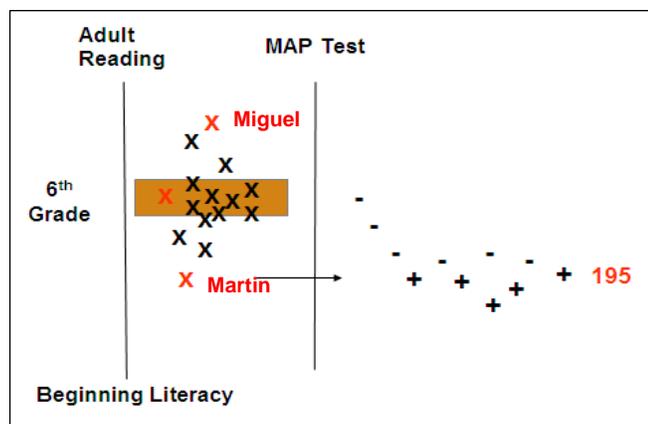
The MAP Test Experience

Instead of a traditional standardized test, Martin is taking NWEA's MAP computerized adaptive test. 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 depending on how he performs on all of the previous questions.

- Martin will more than likely miss the first question because it is a question that is appropriate for a typical sixth grader. The computer will select an easier question from the next goal strand and display it on the screen.

- Martin misses the next question, as well. Based on his two responses so far, the computer will display another easier question on the screen.

- Martin misses this one, too. Based on his three responses so far, the computer will choose another question.

- Each time Martin answers a question, the computer scores all the questions taken so far to make a placement for the next question.

- The computer will continue to select questions, cycling through the goal strands, until Martin reaches the end of the test.

- The score is immediately available to Martin and his teacher and is reported in a Rausch unIT (RIT). Martin scored a 195 RIT on his Reading test.

Sample MAP Test Computer Screens

**The first screen that Martin sees looks like this.**

This is a sample question from a Reading test.
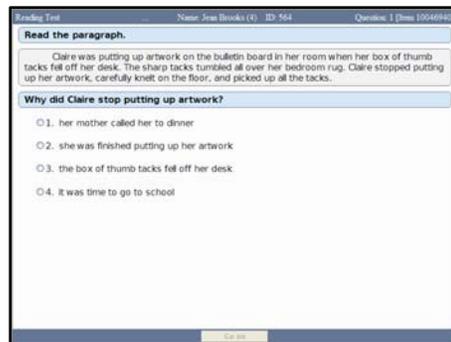
Once Martin begins the test, he would see a variety of questions that would assess his knowledge across all of the goal performance areas. Martin would simply select a response and **Go on** to the next question.

**A score screen will appear when the end of the test is reached
with the data from that test event immediately available.**
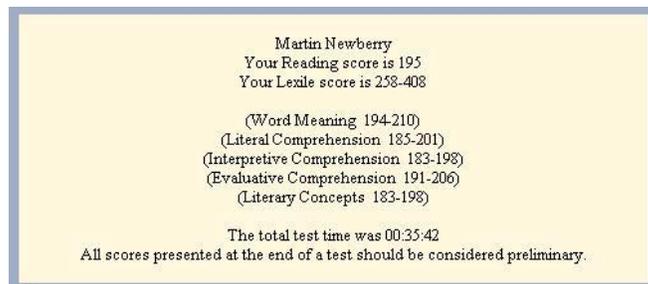
An overall RIT score is provided plus information around each goal performance area. The information can be directly related to DesCartes: A Continuum of Learning–an instructional tool that allows educators to translate a MAP test score into skills and concepts a student may be ready to learn. Reading tests also report a student's Lexile Framework® for Reading score–a unit for measuring text difficulty created by MetaMetrics, Inc. More information on the Lexile Framework is provided at the end of this document.

Features of MAP Tests

- They provide a challenging test for every student. Students are not expected to get every question right or every question wrong.

- They are dynamically built based on the achievement level of the student and will give accurate and 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.

- Tests are given for internal accountability. They provide educators information about students within the district, school, or classroom and are used for their own 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 is consistent from season to season, growth can be measured.

- Results are received immediately. They are displayed at the end of the test event.

- Students can be tested up to four times a year in Reading, Language Usage and Mathematics in order to monitor their growth. Science can be tested up to 3 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.
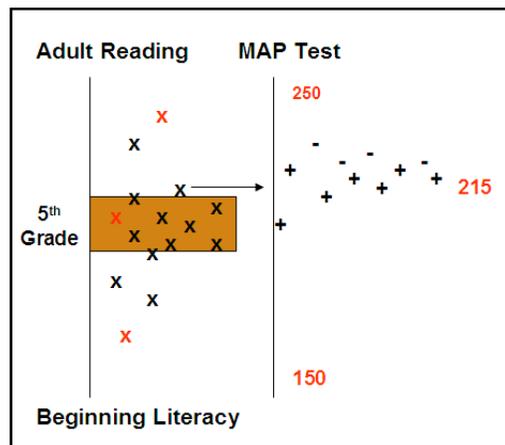
The answer to that question lies in knowing where every student is performing and delivering instruction directly related to that performance level. The MAP system can help us with both by giving us scores that are accurate and reliable.

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

DesCartes: A Continuum of Learning orders specific Reading, Language Usage, Mathematics, and Science skills and concepts by achievement level. For Reading, Language Usage, and Mathematics, the skills and concepts align to the goal structures and content of your state standards. For Science, the skills and concepts are state-aligned for several states, and nationally aligned for others, for the two domains of Science: Concepts and Processes and General Science. Please visit **www.nwea.org >> Assessment System >> Assessments >> Science** to verify the availability and alignment of your state. For easy reference, the skills and concepts are grouped along the continuum according to the NWEA measurement scale. Districts licensed to DesCartes may access it from the Reports Site.

Subject: Reading
Goal Strand: Interpretive Comprehension
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
Make Inferences, Predictions, and Draw Conclusions	**Make Inferences, Predictions, and Draw Conclusions**	**Make Inferences, Predictions, and Draw Conclusions**
• Makes, confirms, and revises predictions in literary text using content (e.g., titles, topic sentences, key words)* • Makes inferences in literary text to identify future events • Makes inferences in literary text to identify the feelings and perspectives of characters • Makes inferences about characters based on characters' actions in the literary work • Makes inferences about the emotions and perspectives of characters in literary text • Identifies future events in literary text using inference • Makes inferences in literary text to identify physical qualities of characters • Makes inferences to identify setting in literary passages • Makes inferences in literary text from titles to determine the content • Makes inferences in literary text to identify tone/mood • Makes inferences to identify problem/resolution in literary text* • Makes inferences about events in literary text • Draws conclusions based on information in informational text • Makes inferences based on information in informational text* • Makes, confirms, and revises predictions in informational texts using content (e.g., titles, topic sentences, key words)*	• Makes, confirms, and revises predictions in literary text using content (e.g., titles, topic sentences, key words)* • Makes inferences about characters based on characters' actions in the literary text • Makes inferences about the emotions and perspectives of characters in literary text • Makes inferences about characters based on the characters' responses to other characters in the literary work • Identifies future events in literary text using inference • Makes inferences in literary text to identify physical qualities of characters • Makes inferences to identify setting in literary passages • Makes inferences in literary text to identify tone/mood • Makes inferences to identify problem/resolution in literary text* • Makes inferences about events in literary text • Draws conclusions based on information in informational text • Makes inferences based on information in informational text* • Makes, confirms, and revises predictions in informational texts using content (e.g., titles, topic sentences, key words)* • Makes, confirms, and revises predictions using supporting details in informational text	• Predicts, confirms, and revises ideas within literary text* • Makes inferences about characters based on the characters' responses to other characters in the literary work • Makes inferences related to events in literary text • Makes inferences about setting in literary text* • Assesses future events in literary text using inference • Makes inferences in literary text to identify feelings and perspectives of characters • Makes inferences in literary text to identify setting • Infers in literary text to identify tone/mood • Infers to interpret figurative language in literary text* • Makes inferences to identify symbolism in literary text* • Makes inferences about characters based on appearances of characters in literary text • Makes inferences about characters supported by their responses to other characters in literary text • Makes inferences about characters and their motives based on the characters' actions in literary text* • Draws conclusions from content in informational text • Makes inferences based on content in informational text*
Summarize and Synthesize	**Summarize and Synthesize**	**Summarize and Synthesize**

MAP Tests Provide Students' *Instructional* Levels

MAP tests 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 test in a particular subject, rather than a series of shorter tests that assess students over specific criteria at various grade levels. MAP assessments are not tests that determine mastery. Rather, MAP assessments provide teachers with the *instructional* level of the student. They provide a way–a road map–for determining where each student is performing in relation to local or state standards, curriculum, or other criteria.

Uses of MAP Tests

- Tests can be administered to new students as they enter the district to determine appropriate instructional levels.

- Tests 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 testing is useful to further monitor progress and determine if instruction needs to be adjusted.

- The data can be used to assist in placing students into certain courses, when used alongside other data.*

- Student progress in special programs such as Title I can be monitored by using MAP data.*

Placement Guidelines are available at **www.nwea.org >>Member Support >> Test Administration >> Measures of Academic Progress**

Normative Data

What are ~~expected~~ *typical* RIT and growth scores?

Educators use data from the most recent NWEA 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.

2005 Reading Achievement and Growth Norms (RIT values)

Grade	FALL Median	FALL Mean	SPRING Median	SPRING Mean	Ending Grade	MEAN GROWTH Fall to Spring	MEAN GROWTH Fall to Fall	MEAN GROWTH Spring to Spring
2	178	177.2	190	188.2	2	13.1	n/a	n/a
3	192	190.3	200	197.9	3	9.1	14.4	10.7
4	201	199.1	207	205.0	4	6.5	9.7	7.5
5	208	205.8	212	210.6	5	5.4	7.1	6.3
6	213	211.0	217	215.0	6	4.3	5.4	4.6
7	217	214.8	220	218.1	7	3.4	4.4	3.7
8	220	218.2	223	221.3	8	3.2	3.9	3.7
9	223	220.7	225	223.1	9	1.6	3.0	1.7
10	226	223.6	227	224.1	10	0.8	2.4	1.8

From the *Normative Data: Monitoring Growth in Student Achievement* document found at **www.nwea.org >>Member Support >> Test Administration >> Measures of Academic Progress**

RIT Point Growth Norms

From our norms studies 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) growth of 16.02 RITs. Students scoring a 210 fall RIT grew, on average, 4.31 RITs.

Grade 3 Reading: Fall-to-Spring RIT Point Growth Norms							
Start RIT	160	170	180	190	200	210	220
Mean Growth	16.02	14.09	11.30	8.82	6.69	4.31	2.54

From the *2005 RIT Scale Norms*, Grade 3 Reading Fall-to-Spring Growth Chart.

NWEA Resources

NWEA Web Site – www.nwea.org

For the latest updates and news items relating to our member support services, please visit NWEA's web site at **www.nwea.org >> Member Support**. There you will find many documents and tools that provide support and information regarding MAP Administration and other NWEA products and services.

The Monthly Measure Newsletter

NWEA publishes *The Monthly Measure* newsletter. This informative newsletter communicates views on current issues in education and how they relate to assessment. It also highlights how NWEA partners are using assessment data to meet the day-to-day challenges in education. Visit the **Newsletter** page in the **About Us** section of the NWEA web site for a sample issue and instructions on how to subscribe to receive *The Monthly Measure*.

Other Web Resources

Along with reading scores, NWEA also reports Lexile scores. With its unique reading scale and set of corresponding tools, The Lexile Framework for Reading provides a way to measure a student's reading level and growth. The framework helps educators and parents select reading materials that appropriately challenge students, thereby guiding the development of stronger reading skills. NWEA assessment reports, which include Lexile scores, enable teachers and parents to place individual students on the Lexile scale and take advantage of the tools within the Lexile Framework. More information can be found on the Lexile web site at **www.lexile.com**.

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