

Measures of Academic Progress



An Introduction to the MAP Computer Adaptive Interim Assessment



Northwest Evaluation Association

Partnering to help all kids learn®

The Value of MAP

Measures of Academic Progress® (MAP®) are K-12 interim assessments that measure growth, project proficiency on high-stakes tests, and inform how educators differentiate instruction, evaluate programs, and structure curriculum.

Computer adaptive MAP assessments reveal precisely which academic skills and concepts the student has acquired and what they're ready to learn. MAP assessments are grade independent and adapt to each student's instructional level. Every item on a MAP assessment is anchored to a vertically aligned equal interval scale, called the RIT scale for Rasch UnIT—a stable measurement, like inches on a ruler, that covers all grades.

And because the measurement is reliable and accurate, RIT scores serve as an essential data point in a student's learning plan; educators can see their precise learning level and respond accordingly.

MAP Assessments

MAP for Reading, Language Usage,
and Mathematics

MAP for Primary Grades (MPG) for Reading
and Mathematics

MAP for Science

End of Course Assessments in Mathematics

Educators rely on MAP to provide essential information about their students' continuum of learning and promote a positive growth trajectory. Unlike standardized mastery tests, MAP is a tool to help students, parents, and teachers identify strengths and opportunities, and focus instruction on the areas of greatest need.

"I wouldn't know what to do without MAP. When teachers can design lessons to match skill sets, that's huge—both in terms of process and results."

- Dave Finley, K-12 Principal and Counselor
Genoa-Hugo (Colorado) School

Aligned to standards

The measurement of student academic growth has never been more important to U.S. educators, and MAP is designed to meet that need. MAP is aligned to most state standards, including the Common Core State Standards, so it provides educators with high-value comparative data and proficiency projections. New MAP test items are introduced every year, but the scale behind the assessment remains stable and consistent year after year, regardless of the standards being assessed.

Growth Norms: The Key to Evaluating Growth

Educators need to know if their students' growth is above the national norm or below, and NWEA provides that context with growth norms that place your students within a representative national sample. Being able to access these growth norms gives teachers the opportunity to help students set realistic growth targets and take ownership of their own learning process, and they serve as a starting point for important growth discussions among students, parents, and teachers. NWEA norming studies also produce status norms that show percentile ranking on a national scale.

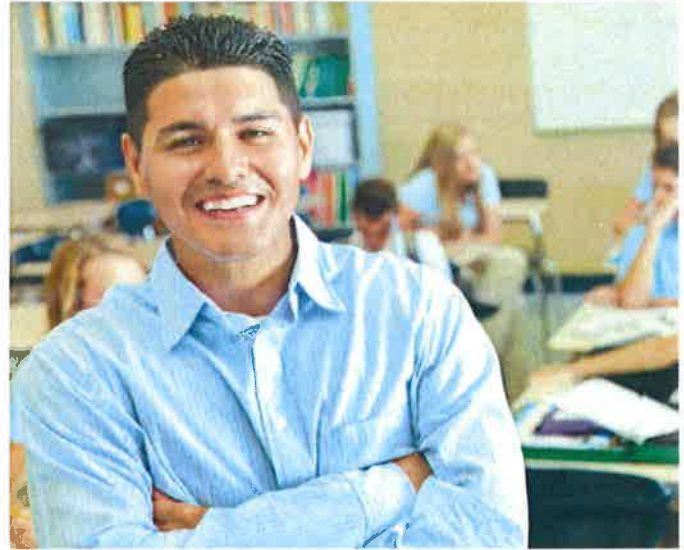
The Science Behind MAP

MAP makes extensive use of the gain score model, a growth model that takes the simple difference between two test scores to define how much learning growth has occurred in the intervening time. This absolute measure of a student's growth can also be applied to understand the student's longitudinal growth over multiple years, even with changes in curriculum and standards.

MAP assessments are based on a well-documented and established theory of measurement called Item Response Theory, under which the difficulty of test questions and each student's achievement level can be measured using the same scale.

The numerical (RIT) value assigned to a student represents the level of test item complexity at which he or she is capable of answering correctly about 50% of the time. It is simply the most accurate way to pinpoint a student's readiness for new concepts—their precise zone of proximal development.

MAP is grade level independent, so the assessment reaches below or above grade level for items to meet the student's ability. This enables educators to use MAP test results to identify relative strength and weakness in goal areas for mathematics, reading, language usage, or science in relation to the standards being assessed. Further, this precise measure of a student's abilities empowers educators to differentiate instruction at the level of the individual student. MAP challenges the top performers while



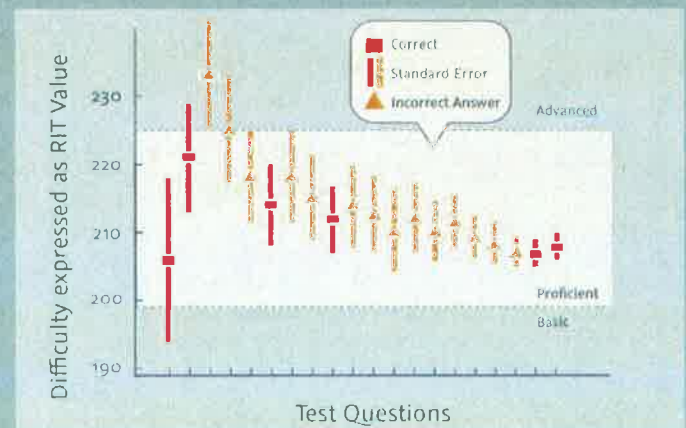
not overwhelming students whose skills are below grade level. No students are lost at the upper and lower levels of achievement.

Because MAP enables teachers to see both what students know and what they're ready to learn, educators can target supplemental instruction accordingly, rather than guessing where the gaps in student understanding may be.

MAP measures growth on a longitudinal scale, regardless of changes to standards. A score of 200 on today's Common Core MAP assessment has the same meaning as a MAP score of 200 from 30 years ago.



Adaptive tests provide more precise measurement in making individual status and progress decisions for all students, but particularly for lower and higher performing students.



MAP tests begin with a grade-level question, then adapt throughout the test in response to each student's performance. If a question is answered correctly, the test dynamically selects a more challenging item; if a student misses a question, the follow-up item is easier.

Putting Your Data to Use

Predicting Proficiency

MAP assessments are closely aligned to the Common Core and most individual state standards, so test results can be used to project proficiency on high-stakes tests. MAP includes technology-enhanced item types and features that allow for deep assessment of reading, language usage, and mathematics comprehension, and increased cognitive complexity, or Depth of Knowledge, enabling students to demonstrate evidence of their learning.

[Read the case study, *Empowering Students and Teachers to Succeed.*](#)

Predicting College Readiness

NWEA research has shown a high predictive relationship between students' scores on MAP assessments and the college readiness benchmarks of the EXPLORE®, PLAN®, and ACT® achievement tests.

[Access the NWEA College Readiness Linking Study.](#)

Universal Screener / RTI Placement

MAP assessments adapt beyond grade level to find the true level of a student's performance, helping educators to identify at-risk students and build a learning plan. MAP assessments received the highest possible rating for classification accuracy, and high ratings in all other categories, from the National Center on Response to Intervention (NCRTI).

[Read the case study, *Using RIT Scores as a Key Data Point for RTI.*](#)

Differentiated Instruction

Students within the same grade often perform at different grade levels, and educators face the challenge of ensuring that every child—from highest to lowest achievers—continues to grow. MAP data makes it easy to identify learning levels so teachers can engage in differentiated instruction and ability grouping that leads to positive results for every child.

[Read the case study, *Using Data to Focus Curriculum on Improvement and Differentiation.*](#)

Program Evaluation

With tightening budgets and expanding student populations, MAP data has become a key component in assessing the impact of specific programs. MAP scores show conclusively what works, so when special programs are instituted, educators can see precisely how much growth has occurred with participating students.

[Read the case study, *Reversing Low Performance with an Innovative Approach to Instruction and Measurement.*](#)

Student Goal Setting

Students become more committed to the learning process when they can set goals and see results. Using the Student Goal Setting worksheet and other NWEA tools, it's easy for teachers and students to build an action plan together, and for parents to become engaged in the process.

[Read the case study, *Using Data to Turn Around School Performance and Accelerate Growth for Every Child.*](#)

[Read NWEA partner case studies on these topics, and more.](#)



“They know exactly what their goal is every time they walk in. And when you're walking on campus, you'll have a kid run up to you and say, 'I hit my goal!' It means a lot to them. They're into it. They understand it and they know they're getting better.”

- Principal Dale Cunningham
Nenahnezad (New Mexico) Community Schools

Interpreting Your Data

From the teachers who work with students every day to the administrators who manage entire districts, actionable data from MAP empowers educators.

MAP assessment data is presented in easy-to-access reports available immediately after assessment, and the content serves all levels of educational decision making. The reports are valuable in many areas:

- Establishing a student's precise instructional level and identifying which areas to focus on for academic growth
- Comparing a student's academic progress with other students in the class, grade, school, or district
- Tracking academic growth with precision over a school year or over several years, even through the transition to the Common Core State Standards

MAP reports are ideal for:

- Planning individual or group instruction
- Monitoring student growth and achievement
- Predicting state assessment performance
- Student and parent engagement
- Diagnosing student strengths and weaknesses
- Analyzing school or district performance
- School improvement planning

See samples of key MAP reports, including the Student Progress Report, Class Overview Report, and District Summary Report.

Teachers depend on MAP reports to help them streamline teaching strategies and provide differentiated instruction, and to create flexible grouping across the classroom.

School and district leaders use MAP reports to evaluate programs and monitor school and student performance relative to growth, proficiency, and norms.

District decision makers rely on MAP reports to aid in resource management, help determine performance trends by grade and school, and compare local student achievement to the national scale.

The Class Report (excerpt) shows each student's performance level across reported goal categories defined by state standards, including the Common Core. The reports also provide RIT scores that indicate each student's instructional levels.

Class Report (by Test RIT) | MAP: Reading 2-5 Common Core 2013/Common Core English Language Arts K-12: 2013

Name (Student ID)	Gr	Test Date	RIT (+/- Std. Err)	Percentile (+/- Std Err)	Lexile® Range	Test Duration	Goal Performance		
							Informational Text	Literature	Found Skills, Vocabulary
Dugaw, Daytan N.	5	09/12/13	178-181-184	3-4-6	158-308	75 m	163-177	175-187	187-197
Devany, Noni I.	5	09/12/13	185-188-191	7-10-13	288-438	20 m	185-196	185-195	177-189
Scruggs, Ambrose E.	5	09/12/13	194-197-200	17-22-31	452-602	42 m	191-202	191-203	192-204

Instructional Resources

NWEA offers learning statements—DesCartes: A Continuum of Learning[®] and Primary Grades Instructional Data—that help educators translate the raw data from students' assessments into actionable plans for instruction, grouping, and more. These powerful resources are aligned to individual state standards, including the Common Core. Educators use NWEA learning statements to personalize instruction, select appropriate topics and skills to address, and maintain a strong growth trajectory for every student. MAP scores are also used by Compass Learning[®], Study Island[®], and other instructional content providers to provide direct supplemental instruction aligned to the student's performance levels and needs.



Northwest Evaluation Association (NWEA) has nearly 40 years of experience helping educators move student learning forward through computer-based assessment suites, professional development offerings, and research services. Visit NWEA.org to find out how NWEA can partner with you to help all kids learn.

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