By using carefully constructed measurement scales that span grade levels, MAP® Growth™ interim assessments from NWEA® o□er educators precise and accurate estimates of student achievement within a subject. Before achievement test scores can be useful to educators, however, they need to be evaluated within a coherent interpretive context. The 2020 NWEA MAP Growth norms can provide one source of context.

For example, the 2020 MAP Growth norms allow educators to compare achievement status—and changes in achievement status (growth)—to students' performance in the same grade at a comparable stage of the school year or across two test events within or across school years. This information:

- helps teachers plan instruction for individual students or confer with parents
-
  Growth test norms to his or her performance on another set of MAP Growth test norms (i.e., 2015 versus 2020 norms). NWEA strongly advises educators to use the 2020 MAP Growth norms, especially when reviewing data longitudinally, because these norms provide the most current and accurate reference for MAP Growth scores.

  Di□erences between the 2020 and 2015 MAP Growth norms have been observed. Most notably, student achievement has declined in recent years across subject areas, grades, and terms. There are also di□erences in the magnitude of growth observed between test events. On average, in mathematics and reading, the 2020 growth norms show slightly lower means in the earlier grades and slightly greater means in the upper grades. Drops in the average mathematics and reading achievement for grades four and eight are consistent with recent declines reported on the National Assessment of Educational Progress (NAEP) for these subjects and grades.

MAP Growth achievement status and growth norms for students and schools

The NWEA 2020 MAP Growth norms Study provides achievement status and growth norms for individual students and grade levels within schools in each of the four subject areas: reading, language usage, mathematics, and general science. The study's results are based on K–12 grade level samples. Records are sampled from between 3.6 and 5.5 million test scores from 500,000 to 700,000 students attending over 24,500 public schools in 5,800 districts spread across all 50 states.

Rigorous sampling and weighting procedures, which were consistent with the approach taken with the 2015 MAP Growth norms, were used to ensure that the 2020 norms were representative of the U.S. public school student population.

MAP Growth assessments can be administered on a schedule designed to meet a school's needs. As a result, student scores reflect di□erent amounts of instruction. Under such circumstances, normative comparisons will be unfair, for example, if students with 16 weeks of instruction are compared to students with 20 weeks of instruction. Like the 2015 norms, the 2020 norms accommodate this scheduling flexibility by constructing time-continuous norms. MAP Growth achievement and growth are defined for a number of di□erent instructional weeks during the year, allowing for more valid comparisons and interpretations of student and school achievement status and growth.

Similar instructional week flexibility is addressed in the student and school growth norms. Growth anticipated for students with the same initial score may be determined for varying numbers of instructional weeks separating two test occasions. This allows educators to make appropriate normative interpretations of test results that are consistent with their students' particular testing schedules. With the accompanying conditional growth percentiles, the norms tell educators if students made growth consistent with that of other students (in the same grade and subject area, with the same initial RIT score) with the same amount of instruction between test events. Situating growth relative to students nationwide helps educators move beyond the simple conclusion that a student either did or did not "make target growth" and understand the extent and magnitude by which a student's growth (o)6.4 (w[a)-17(r)12[t)-)6.8 (x)-24.7-17.7 (u)-1xuint (e b)1h the s10.9 (h 8 rce4 (d)-1 0tti525.2 (t)1.6 (2 (n))-51 s7.3 ()-21 (s)-30.7 (. u)-1hh . Uts4 (l)-

Student achievement norms

The norms in the tables below have a very straightforward interpretation. For example, in the achievement norms for reading, grade 2 students in the fall had a mean score of 172.35 and a standard deviation of 15.19. To get a sense of how much variation there was, the SD of 15.19 can be subtracted from the mean and added to the mean to produce a range of about 157–188. Since the norms are based on the bell curve, we know that 68% of all grade 2 reading scores are expected to fall within this range.

* These science status norms describe the distributions of achievement in general science academic skills and content knowledge for the relevant student populations for these grades and are useful for screening and placement purposes. Test results should not be used to evaluate performance where science content is more specialized, such as in topically di□erentiated high school science courses (e.g., biology, chemistry, physics).

Student growth norms

Growth norms developed for the 2020 MAP Growth norms Study reflect the common observation that the rate of academic growth is related to the student's starting achievement status on the measurement scale. In the elementary grades, for example, students starting out at a lower achievement level tend to demonstrate greater raw growth compared to students in the upper grades. **The growth norm tables below show mean growth when the mean grade level achievement status score (i.e., 50th percentile score) is used as the starting score**. In each case, the starting score is treated as a factor when predicting growth. If a particular student's starting score was below the grade level mean,

School norms

Just as references to performance at the student level are important, school references can also provide important insights. Because research shows that the variation of groups of students tend to be much smaller than that of the students themselves, student-level norms are inappropriate for understanding the performance and progress of groups of students. If groups of students in a school are evaluated against

MAP Growth Norms Study: Comparing 2020 to 2015

National norms overview: 2020 vs. 2015				
Design/Method	**2020**	**2015**	**Change**	**Benefits**
Growth model (methodology)	Multilevel Growth Model	Multilevel Growth Model	No significant changes to norming methodology	**Consistency and reliability** By maintaining consistency in a proven methodology, we can better understand changes in student achievement and growth trends
# of terms	9 Testing Terms	9 Testing Terms	Same number of testing terms (9), but more recent data	**Maximal information from available student test score histories** Using nine testing terms provides the optimal amount of data points to support norms for both achievement and growth
Time period	Fall 2015 Spring 2018 (Fall, Winter, Spring across 3 years)	Fall 2011 Spring 2014 (Fall, Winter, Spring across 3 years)	2020 norms use much more recent data	**Recent data = more relevant norms** Using more recent data ensures that we are providing updated estimates of achievement and growth norms
Testing calendars	Higher % of norm data linked to **actual** district testing calendars	Lower % of norm data linked to **actual** district testing calendars	2020 norms use 2.5x more data points that are tied to actual district testing calendars	**Improved measurement of growth** Incorporating more data that is tied to actual district testing calendars improves our ability to develop a more accurate measure of instructional exposure, resulting in more accurate norms
Growth terms	Winter–Winter Fall–Fall Spring–Spring Fall–Winter Fall–Spring Winter–Spring (NEW!) Spring–Fall*	Winter–Winter Fall–Fall Spring–Spring Fall–Winter Fall–Spring Winter–Spring	2020 norms have added the Spring–Fall comparison term	**Understanding of full-year learning** Adding the Spring-Fall term pair lets us better understand the phenomenon of "summer loss," which provides a better description of a student's performance over a full year
Additional filter for student test-taking e□ort	Uses e□ortful scores only (i.e. 10% or fewer rapid guesses)	Uses e□ortful and non-e□ortful scores	New feature of norms	**Better data = better norms** Using more clearly defined target populations for achievement and growth norms, plus removing construct irrelevant variance due to student test-taking e□ort, allows for better data and norms

Grade coverage: National norms 2020 vs. 2015				
Subject	**2020**	**2015**	**Change**	**Benefit**
Math K–12	Achievement: K–12 Growth: K–12	Achievement: K–11 Growth: K–10	Achievement: 12th grade Growth: 11 & 12th grade	**More coverage = better tracking** Adding more grade level coverage increases the opportunity to help better contextualize the achievement and growth of all students
Reading	Achievement: K–12 Growth: K–12	Achievement: K–11 Growth: K–10	Achievement: 12th grade Growth: 11 & 12th grade	
Language Usage	Achievement: 2–11 Growth: 2–11	Achievement: 2–11 Growth: 2–10	Achievement: No change Growth: 11th grade	
Science (General)	Achievement: 2–10 Growth: 2–10	Achievement: 3–10 Growth: 3–8	Achievement: 2nd grade Growth: 2nd, 9th, 10th grade	

* Note: Spring-to-Fall term pair will not be available in MAP Growth reporting in July 2020.

NWEA is a not-for-profit organization that supports students and educators worldwide by providing assessment solutions, insightful reports, professional learning o□erings, and research services. Visit NWEA.org to find out how NWEA can partner with you to help all kids learn.