

Predicting proficiency on AK STAR summative based on NWEA growth scores

AK STAR SYSTEM

In the 2021-2022 school year, the Alaska Department of Education and Early Development (DEED) administered a new assessment system for grades 3-9 in English language arts (ELA) and mathematics, the [Alaska System of Academic Readiness \(AK STAR\)](#). This balanced approach connects fall or winter [MAP® Growth™](#) interim assessments to the spring AK STAR, which is made up of a grade-specific summative component combined with a growth component.

During the spring 2022 administration, students across Alaska took both MAP Growth and the AK STAR summative assessment over the span of several weeks to ensure AK DEED and NWEA had the necessary information to report on the links between MAP Growth and AK STAR, known as a [linking study](#).



LINKING STUDIES allow Alaskan educators to confidently **USE MAP GROWTH RIT SCORES** throughout the year **TO PREDICT** their students' **PERFORMANCE LEVELS** on the state summative assessment.

THE RESULTS

NWEA confirmed that the MAP Growth interim and AK STAR summative assessments were constructed based on the same or similar set of content standards to warrant a connection. The link between the two tests was confirmed by calculating the relationship between the MAP Growth and AK STAR summative test scores. A high, positive correlation (e.g., ≥ 0.70) shows that students who perform well on one assessment also tend to perform well on the other, and vice versa. The correlations between MAP Growth and AK STAR were above 0.80 for grades 3-9 in math and ELA. Additionally, the classification accuracy between the MAP Growth and AK STAR summative test scores from spring 2022, shown below, indicate a high accuracy rate and that MAP Growth is a good assessment for predicting performance on the AK STAR spring summative assessment.

Figure 1 ▶ Accuracy of MAP Growth classifications

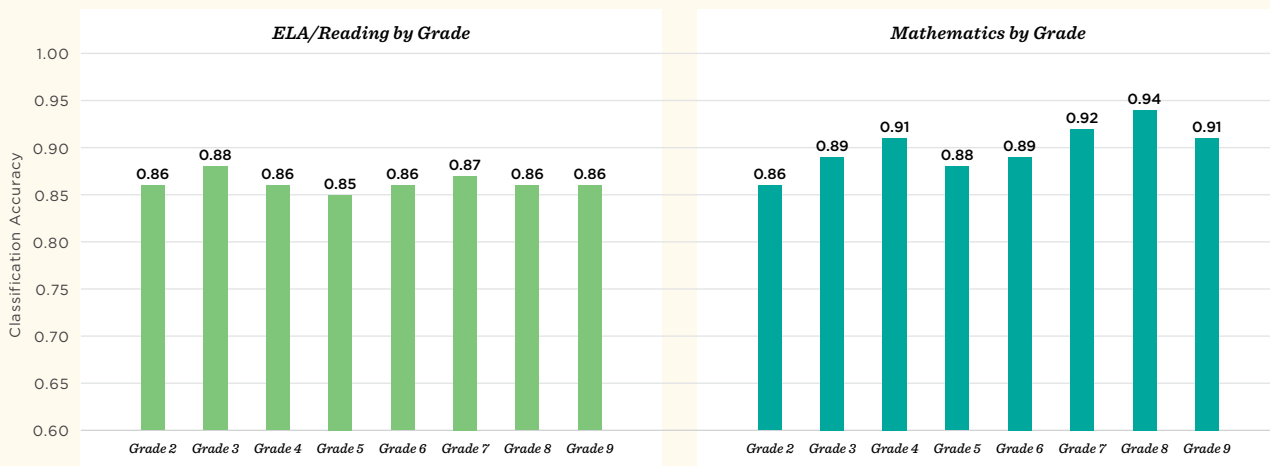


Table 1 ▶ MAP Growth Projected Proficiency Cut Scores for 4th Grade—ELA/Reading

AK STAR SUMMATIVE ELA SCORE RANGES							
Needs Support		Approaching Proficient		Proficient		Advanced	
1410-1571		1572-1593		1594-1611		1612-1750	

mapGROWTH READING RIT SCORE AND PERCENTILE RANGES							
Needs Support		Approaching Proficient		Proficient		Advanced	
RIT	PERCENTILE	RIT	PERCENTILE	RIT	PERCENTILE	RIT	PERCENTILE
FALL							
100-187	1-29	188-203	30-66	204-214	67-85	215-350	86-99
WINTER							
100-193	1-29	194-208	30-65	209-218	66-84	219-350	85-99
SPRING							
100-196	1-31	197-210	32-64	211-220	65-83	221-350	84-99

Note: The full table (grades 2-9) for ELA/Reading cut scores can be found on page 17 of the [linking study](#). Math cut scores can be found on page 18 of the linking study. Additionally, the probability of the proficiency projections can be found in the tables starting on page 20 of the linking study.

USING THE LINKING STUDY

This linking study will allow Alaska educators to use MAP Growth RIT scores throughout the year to predict their students' performance levels on the AK STAR summative assessment. Through the linking study NWEA produced RIT cut scores that correspond to the AK STAR summative achievement levels (Needs Support, Approaching Proficient, Proficient, Advanced). A cut score is the minimum score a student must get on a test to be placed in a certain achievement level. The linking study provides RIT cut scores for the fall, winter, and spring MAP Growth administrations that correspond to the AK STAR achievement levels for each subject and grade.

Educators can use these cut scores to determine whether students are on track for proficiency on the state

assessment, identifying students early in the school year that are at risk of not meeting state proficiency standards and providing targeted instruction to improve academic outcomes.

mapGROWTH + AK STAR

..... *Key Findings*

- The spring 2022 MAP Growth and AK STAR assessment linking study demonstrated that spring RIT scores are highly accurate at predicting students' proficiency on the AK STAR summative assessment.
- The prediction accuracy of MAP Growth will probably be slightly lower if using fall or winter RIT scores.
- Overall, a MAP Growth projected proficiency will be fairly accurate for most students, but it will not perfectly match the actual achievement level on AK STAR for every student.

Table 1 provides information on the cut scores for the AK STAR English Language arts (ELA) fourth grade assessment and the corresponding MAP Growth RIT score and percentile projected proficiency ranges. Based on this table, we know that:

- A student with a fall MAP Growth RIT score of 204 or above would be projected as being “Proficient” or “Advanced” on the spring AK STAR

summative assessment. Students with RIT scores between 204 and 214 will be projected as “Proficient” and students with RIT scores between 215 and 350 will be projected as “Advanced”.

Figure 2 ▶ Student scenario for MAP Growth projected proficiency and AK STAR scoring

“ I AM A FOURTH GRADER TAKING MAP GROWTH AND THE AK STAR ELA TESTS. For me to be at the “Proficient level” on the AK STAR spring summative test, I need to get a 1594 or higher. My MAP Growth RIT score and projected proficiency levels do not guarantee my spring AK STAR achievement level. Here is how I progressed during the school year.

...

STUDENT	map GROWTH	map GROWTH	AK STAR
Student Assessment Scores	Fall Adaptive Growth Assessment	Winter Adaptive Growth Assessment	Spring Adaptive Summative Assessment
+ MY RIT SCORES	207	206	215
+ MY AK STAR SCORE	N/A	N/A	1605
+ MY PROFICIENCY LEVEL	Projected Proficient	Projected Approaching Proficient	Proficient

... In the fall, I was projected to be “Proficient” but in the winter I missed several school days. Due to this I was projected as “Approaching Proficient” on my winter MAP Growth test. My teacher helped me catch up on missing lessons. **IN THE SPRING, I SCORED A 1605 ON THE AK STAR AND WAS AT THE “PROFICIENT” LEVEL.**”

- Students with a RIT score of 203 or below on the fall MAP Growth assessment would not be projected as being proficient on the AK STAR summative assessment. Students with RIT scores between 188 and 203 will be projected as “Approaching Proficient” and students with RIT scores between 100 and 187 will be projected as “Needs Support”.
- Students with RIT scores above 209 and 211 in winter and spring, respectively, would be projected as “Proficient” or “Advanced”. Students with RIT scores below 208 or 210 in the winter or spring, respectively, would be projected as “Approaching Proficient” or “Needs Support”.

To learn more about using the [AK STAR and MAP Growth linking study](#) and projected proficiency scores to inform instructional planning decisions, please consider the following professional learning sessions found in this [AK DEED Professional Learning Catalog](#).

- Applying Reports: Student Growth and Goal Setting
- Applying Reports: Essential Reports for Administrators



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