Using *i-Ready Diagnostic* as a Component of Determination for Acceleration to Algebra 1

Curriculum Associates | May 2025

Overview

This document provides guidance for using *i-Ready Diagnostic* in a general mathematics acceleration determination. Guidance is provided for Grades 5–7 (i.e., elementary or middle school) and is not intended as a guideline for students to "skip grades." We define acceleration as the compression of curriculum required for students to take high school mathematics courses (typically Algebra 1 and/or Integrated Mathematics 1) in middle school. An accelerated pathway defines courses and content expectations that allow students to progress through middle school mathematics topics at a faster pace without missing the standards required for mastery of each course.

Introduction

Students' success in Algebra 1 determines their access to advanced learning in mathematics and prepares them for the demands of college and careers in many fields. Placing students in the course at the right moment in their development is key—students with sufficient conceptual knowledge and skills will be appropriately challenged by the material, while underprepared students are likely to struggle less productively without the right sort of support. For those students who are ready, compression in middle school to Algebra 1 is one way for them to accelerate. Many students are placed into a compressed curriculum to take Algebra 1 (or Integrated Mathematics 1) in middle school, which allows them to access advanced mathematics courses while they are in high school.

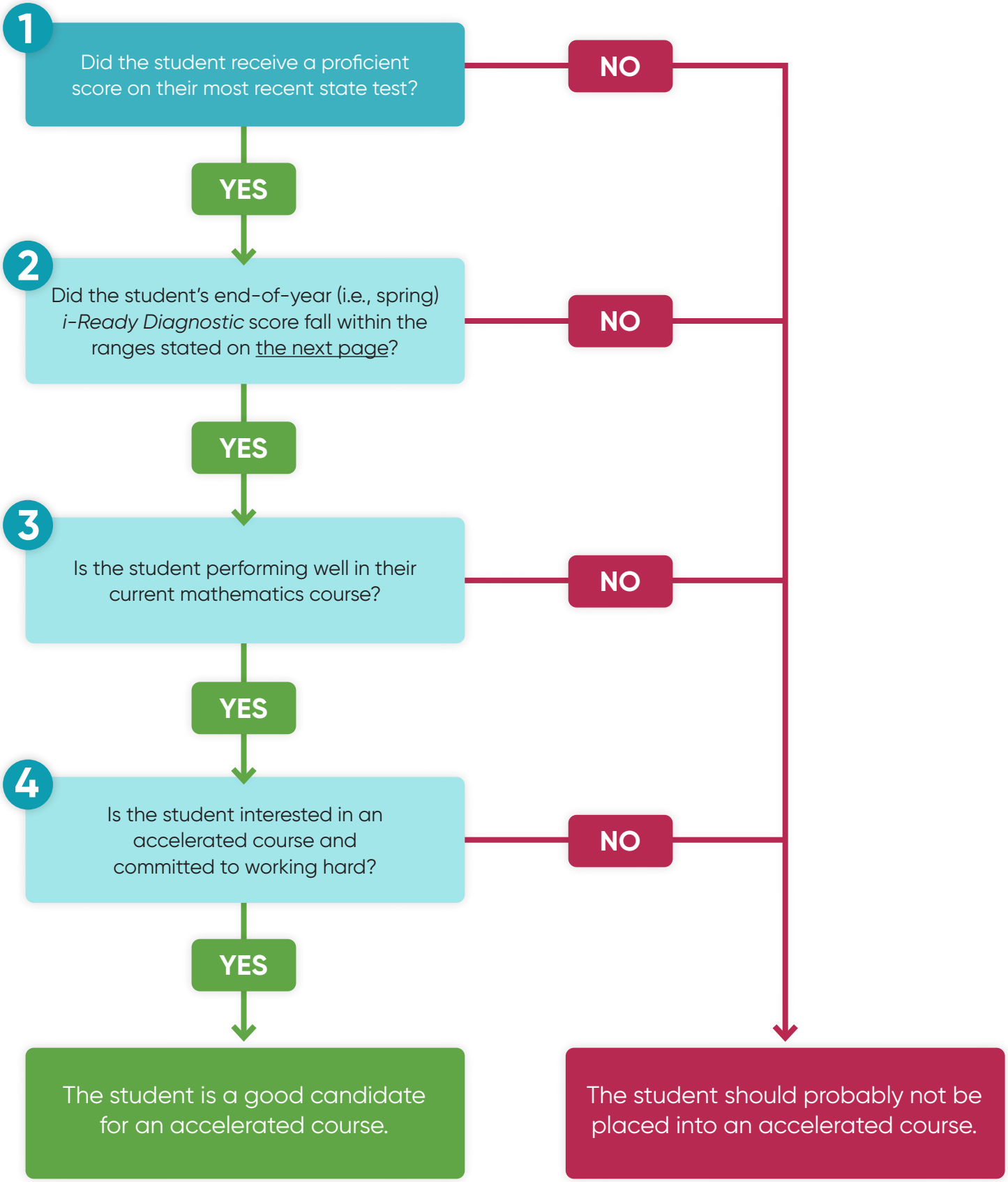
The *i-Ready Diagnostic* can provide one source of information to factor into a determination process for whether students are eligible for an accelerated mathematics class. By considering students' Diagnostic scale scores alongside other evidence of their proficiencies—including classroom grades, state test scores, and the professional opinions of their teachers and counselors—educators can develop a well-rounded profile of a student's strengths and weaknesses as they determine a student's eligibility for accelerated courses.

This document provides guidance for how educators could consider using *i-Ready Diagnostic* in a general mathematics acceleration determination in elementary or middle school; however, a district's acceleration process should align with their academic mathematics goals as well as any other district and state policies. While this document addresses general mathematics course acceleration in Grades 5–7, separate guidance is available to help determine readiness for placement into algebra courses in Grade 6 and Grades 7 and 8.

i-Ready Diagnostic and Mathematics Acceleration

Districts can use the *i-Ready Diagnostic* in a number of ways to determine whether a student is eligible for acceleration in mathematics. Importantly, **it is always critical to use more than one data point when considering acceleration**. It is also important to note that we are not recommending students skip entire grades when we talk about acceleration to Algebra 1. The accelerated courses referred to here are condensed to allow students to work through the coursework for each grade level at a faster pace while ensuring that each standard is completely met. It is not considered best practice to skip entire grades of coursework or any standards at any grade as students still need to acquire foundational and prerequisite skills as they progress to Algebra 1.

The schematic on the next page presents one way to use the Diagnostic as one of four components in a multistep process, with additional detail following.



1 Did the student receive a proficient score on their most recent state test?

A first step in a mathematics acceleration determination could be to evaluate a student's proficiency on their most recent state assessment. If the student was proficient in mathematics on their most recent state assessment, the student may be a good candidate for acceleration; if the student did not achieve proficiency, the student may not be a candidate for acceleration.

2 Did the student's end-of-year (i.e., spring) *i-Ready Diagnostic* score fall within the ranges stated below? If using percentiles with placements, did the student's percentile meet the percentile requirements?

For those students who were proficient on their state assessment, a second step could be to evaluate a student's *i-Ready Diagnostic* performance.

- a For acceleration starting in Grade 5, does the student have an overall scale score in Grade 4 of at least 517?
- b For acceleration starting in Grade 6, does the student have an overall scale score in Grade 5 of at least 527?
- c For acceleration starting in Grade 7, does the student have an overall scale score in Grade 6 of at least 541?

3 Is the student performing well in their current mathematics course?

The third step could be based on teacher observations and the student's performance in their classroom. Data points like formative and summative assessments along with the student's ability to write and explain their thinking should be used as evidence. The Grade-Level Planning (Prerequisites) report in *i-Ready* could also be used to demonstrate the student's grasp of the foundational and prerequisite skills needed for the class.

4 Is the student interested in an accelerated course and committed to working hard?

Finally, in a compressed path where nothing is skipped, the students are actually completing more standards in the same amount of time, for at least two years in a row. For this reason, classroom observations of the student's response to challenge and perseverance, along with their support network (e.g., friends, family, educators) and ability to sit in class with older students, could be considered in the decision-making process.

Methodology

Curriculum Associates' mathematics content experts created a list of algebra skills considered to be critical for algebra readiness and cross-referenced this list with other available information, including two separate studies—the first of which tracked student mathematics performance on the *i-Ready Diagnostic* over two years using performance-level standards to classify those students as "algebra ready." To find more information about that study and its results, refer to the Research Summary: Predicting Algebra Readiness. However, a second study analyzed students' overall mathematics scores on the *i-Ready Diagnostic* prior to taking an Algebra 1 course and the results on their state summative Algebra 1 assessments. Information from this study allowed us to alter recommendations slightly to allow for a more inclusive population.

When using test scores, we offer recommendations based on grade-level placements. In the Diagnostic, the Mid cut score relates to proficiency. However, because students placed in an accelerated course could be potentially missing out on some foundational mathematics skills as well as prerequisite content, we recommend that the bar should be set higher and offer a cut score to indicate students who place Late On Grade Level for the current grade. For example, a student who is in chronological Grade 4 in spring would need to earn a Late Grade 4 placement (e.g., 517 score, 94th percentile) in order to have the prerequisite skills to accelerate to learning Grade 6 content in the following school year (when in chronological Grade 5). Likewise, a student who is in Grade 5 in spring would need to earn a Late Grade 5 placement (e.g., 527 score, 93rd percentile) in order to accelerate to learning Grade 7 content in the following school year. For a student in Grade 6 beginning an accelerated course in Grade 7, we recommend that the student's placement score corresponds to a Late Grade 6 placement (e.g., 541 score, 91st percentile). 541 is also the cut score that indicates a student is ready for Algebra 1 content.

Placements and Percentile Recommendations

While Curriculum Associates recommends a scale score of Late On Grade Level, individual districts may find that adjusting this number up or down results in a standard that is better suited to their local conditions. In making this determination, districts may want to consider:

- The performance of past students in Algebra 1 or accelerated mathematics courses and their associated *i-Ready Diagnostic* scores. Over time, districts can accumulate enough of this data to identify the score that best predicts success in their courses.
- Local constraints, such as the number of students in classes and availability of courses
- Concepts that may be covered more quickly and whether there are any potential instructional effects related to students not receiving in-depth instruction for that content

To help districts choose a performance-level standard, the table on the next page compares student performance at four different levels:

- The recommended performance-level standard, which is equivalent to the Late On Grade Level for Grades 4–6 students
- A most inclusive score, which is equal to two minimum standard errors of measurement (SEMs) below the recommended score
- A more inclusive performance-level standard, which is equal to one minimum SEM below the recommended score
- A more exclusive performance-level standard, which is equal to one minimum SEM above the recommended score

Districts can consider performance at four different levels to choose a performance-level standard that makes sense for their programs.

		Most Inclusive	More Inclusive	Recommended Score	More Exclusive
Grade 4 Spring (Acceleration Starting in Grade 5)	**Scale Score Percentile**	505 89th	511 91st	517 94th	523 97th
Grade 5 Spring (Acceleration Starting in Grade 6)	**Scale Score Percentile**	514 85th	521 91st	527 93rd	535 95th
Grade 6 Spring (Acceleration Starting in Grade 7)	**Scale Score Percentile**	529 85th	535 89th	541 91st	547 93rd

Cautions and Considerations

Our goal is to ensure students are successful, both with strong content knowledge and confidence with mathematics. We have seen evidence that inappropriate acceleration can negatively affect students' attitudes toward mathematics and could hinder their success in high school and college mathematics courses. This is concerning because research shows that students who take no mathematics course at all in their senior year or repeat lower-level courses are at risk for needing remedial mathematics in college.

For more information and cautionary guidance about accelerating students in middle school, please see the whitepaper *Rethinking Middle School Math Acceleration* by Elizabeth Peyser, national director of content and implementation, and Danielle Curran, associate vice president of mathematics instruction and implementation.

In order to avoid the negative effect on students' confidence and content knowledge in mathematics, it is important to evaluate students' success in accelerated courses early in the sequence, which we suggest after one or two units of the accelerated sequence have been completed. Identifying students needing support and moving them to a parallel non-accelerated course as soon as possible will be paramount to helping them develop a coherent understanding of mathematics. Considerations include the student's:

- Performance on quizzes and formative assessments
- Interest in remaining in the course and working hard
- Performance on cumulative and unit assessments
- Level of support required in order to keep up with their peers during instruction

If you are using the *i-Ready Classroom Mathematics* program, we suggest using the Continuation of Acceleration Questionnaire to help decide whether a student should stay in an accelerated middle school mathematics course.

Follow us to see how other educators are using *i-Ready* to personalize learning and accelerate growth.

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