



# **Growth on *i-Ready Diagnostic* for Grades 9–12**

**Curriculum Associates  
Assessment Brief  
February 1, 2022**

## Growth on *i-Ready Diagnostic* for Grades 9–12

Curriculum Associates Assessment Brief | February 2022

### Overview

In July 2018, a new growth model was introduced in the *i-Ready* system for Grades K–8. Based on years of research and analysis of millions of student Diagnostics taken, the new model advances measurement of growth by including both Typical Growth and Stretch Growth® measures differentiated by students' baseline performance (i.e., placement on the fall assessment). Because of the more limited population using *i-Ready Diagnostic* in high school, the same level of research is not currently available for Grades 9–12. Thus, two alternative approaches to measuring growth are available in Grades 9–12: one that evaluates change in grade-level placements and another that uses generalized Typical Growth and Stretch Growth targets to evaluate growth in Grades 9–12.

### What are the two options for measuring growth in Grades 9–12?

Currently there are two primary ways that educators can measure growth for students who use *i-Ready Diagnostic* in Grades 9–12:

- Changes in grade-level placements
- Generalized Typical Growth and Stretch Growth targets

As with all approaches to measuring growth, each option has benefits and limitations, and educators are encouraged to choose the option that works best for their goals.

### How can growth be measured by examining change in grade-level placements?

Each time students take the Diagnostic, they receive a scale score and placement level. One option for evaluating the growth of a student in Grades 9–12 is to examine students' grade-level placements at the beginning of the year and then again later in the year after a subsequent administration of the Diagnostic.

One report within *i-Ready* that can be used to evaluate growth in this way is the **Diagnostic Growth (Student) report**. This report evaluates growth in terms of the number of grade-level placements a student has changed from their baseline placement and provides detailed information for individual domains on the Diagnostic in addition to the change in placement of a student's overall score. In the example pictured here, the student's baseline placement in Vocabulary was Grade 8. The student then took an additional Diagnostic and again achieved a placement of Grade 8. At this point, we can say the student has not achieved sufficient growth to reach a higher placement level in Vocabulary. On the student's third Diagnostic, the student achieved a placement of Early 9. We can say that across the full school year, this student grew from a Grade 8 level in Vocabulary to the level of an Early Grade 9 student.

Placement by Domain ⓘ

Domain	Diagnostic 1	Diagnostic 2	Diagnostic 3
Overall ↑	● Grade 8	● Grade 8	● Early 9
Phonological Awareness*	● Tested Out	● Tested Out	● Tested Out
Phonics*	● Tested Out	● Tested Out	● Tested Out
High-Frequency Words*	● Tested Out	● Tested Out	● Tested Out
Vocabulary ↑	● Grade 8	● Grade 8	● Early 9
Comprehension: Literature ↑	● Grade 8	● Grade 8	● Early 9
Comprehension: Informational Text ↑	● Grade 7	● Grade 7	● Grade 8

↑ Placement Improved from Baseline  
\* Foundational Domains

A second report available within *i-Ready* that can be used to evaluate growth for students in Grades 9–12 is the **Diagnostic Growth (Class) report**. This report provides each student’s Baseline Placement and Scale Score, as well as their Current Placement and Scale Score. Because *i-Ready Diagnostic* does not currently have Typical Growth and Stretch Growth Targets available for students in Grades 9–12 directly with in the *i-Ready* system, these columns include dashes.

Annual Typical Growth ⓘ		Annual Stretch Growth ⓘ		Baseline Placement & Scale Score	Current Placement & Scale Score
Percent Progress	Scale Score Progress	Percent Progress	Scale Score Progress		
–	–	–	–	● Grade 8 (610)	● Grade 8 (634)
–	–	–	–	● Grade 8 (627)	–
–	–	–	–	● Grade 8 (605)	● Early 9 (642)
–	–	–	–	● Grade 8 (630)	● Early 9 (641)
–	–	–	–	● Early 9 (646)	● Mid 9 (669)
–	–	–	–	● Mid 9 (678)	● Grade 10 (716)
–	–	–	–	● Grade 8 (629)	● Grade 8 (634)
–	–	–	–	● Grade 7 (598)	● Grade 8 (638)
–	–	–	–	● Grade 7 (594)	● Early 9 (647)

The example pictured here features the growth for a number of students.

- The student featured in the first row had a baseline placement on the Diagnostic of Grade 8. Later, when the student took a subsequent Diagnostic, the student again received a placement of Grade 8. This student showed no growth in their placement over the course of these two Diagnostic administrations.
- The student featured in the second row has not taken a second Diagnostic, so this student’s “Current Placement & Scale Score” column includes a dash.
- The student in the third row had an initial placement of Grade 8 and a subsequent placement of Early 9. This student is said to have grown by one placement between the two Diagnostic administrations.

Importantly, for Mathematics, the ability to evaluate a student’s placement depends on which mathematics course sequence a student is taking and the level at which growth is being evaluated. There are two primary course sequences across the United States:

- The **Traditional Pathway**, in which a student takes algebra in Grade 9, geometry in Grade 10, algebra 2 in Grade 11, and a more complex mathematics course such as pre-calculus in Grade 12.
- The **Integrated Pathway**, in which a student receives instruction in algebra, geometry, measurement and data, and numbers and operations in each grade from Grade 9 to Grade 12.

When looking at growth within a year, it is recommended that educators evaluate a student’s change in Overall Placement for students taking the Integrated Pathway because the student is exposed to content covering all four *i-Ready* Mathematics domains that contribute to the student’s Overall Placement, but it is *not* advised to evaluate change in Overall Placement for students taking the Traditional Pathway who are receiving instruction specific to only one *i-Ready* domain (e.g., Algebra and Algebraic Thinking in Grade 9 or Geometry in Grade 10) because the student is not receiving instruction in all domains that contribute to the student’s Overall Placement.

When looking at growth within a year for students taking the Traditional Pathway, evaluating growth at the domain level can be done, provided it is within the *i-Ready* domain in which the student is receiving instruction. That is, for a Grade 9 student taking an algebra course, it would be reasonable to evaluate the student’s change in placement within the *i-Ready* Algebra and Algebraic Thinking domain, but not within the Measurement and Data or Geometry domains because the student is not receiving instruction in these domains. Because students in the Integrated Pathway usually receive instruction across all four domains, evaluating growth by examining changes in *i-Ready* domain-level placements can be done.

The table below provides a summary of the instances in which changes in placements can be used to make inferences about student growth.

### Recommendations for When to Use the Change-in-Placement Approach to Growth in High School Mathematics

Pathway	Course in Which Student Is Receiving Instruction	Evaluate Growth Using Change in Overall Placements?	Evaluate Growth Using Change in Domain-Level Placements?
Traditional Pathway	Algebra 1 or Geometry	No	Yes (For the course in which the student is receiving instruction)
	Algebra 2 or Later	Yes, assuming the course includes instruction from all four Mathematics domains	Yes
Integrated Pathway	Grades 9–12 (Integrated I–IV)	Yes	Yes (Assuming the student is receiving instruction across the domains, as is common of the Integrated Pathway)

When evaluating changes in placements for students in Algebra or Geometry courses, the progression of placements a student can achieve on *i-Ready* and their associated equivalent grades are featured below.

#### Algebra Placements and Associated Grades

<i>i-Ready</i> Domain Placement	Associated Grade in High School
↓ Grade 6*	Grade 6
↓ Grade 7	Grade 7
↓ Grade 8	Grade 8
↓ Algebra 1 (Early, Mid, and Late)	Grades 9–10
↓ Algebra 2	Grade 11
↓ CCR	Grade 12

\*Although this table begins at a Grade 6 placement, students in high school can receive as low as a Grade K domain placement.

#### Geometry Placements and Associated Grades

<i>i-Ready</i> Domain Placement	Associated Grade in High School
↓ Grade 6*	Grade 6
↓ Grade 7	Grade 7
↓ Grade 8	Grade 8
↓ Geometry (Early, Mid, and Late)	Grades 9–10
↓ Algebra 2	Grade 11
↓ CCR	Grade 12

\*Although this table begins at a Grade 6 placement, students in high school can receive as low as a Grade K domain placement.

As is demonstrated in the tables above, it is important to remember that for students in the Traditional Pathway, a student in an algebra 1 course who gets an algebra 1 *i-Ready* placement is considered to be at the Grades 9–10 level (i.e., the algebra 1 placement covers two grades). Likewise, a student in a geometry course who gets a geometry *i-Ready* placement is considered to be at the Grades 9–10 level (i.e., the geometry placement covers two grades).



## How can growth be measured using generalized Typical Growth and Stretch Growth targets?

An alternative approach to evaluating growth using change in placements is to use generalized Typical Growth and Stretch Growth targets from the *i-Ready* growth model. This approach requires an educator to conduct some calculations outside of the *i-Ready Connect™* system using information provided in this document, but it gives the advantage of providing an approach to measuring growth that is analogous to what's available within *i-Ready* for Grades K–8.

We have designed the growth model to offer:

- **Differentiation:** For each subject, Reading and Mathematics, *i-Ready* provides growth measures that are differentiated based on each student's grade and baseline placement on the *i-Ready Diagnostic*.
- **A path to proficiency:** Because the *i-Ready Diagnostic* is criterion referenced, placements show where students need to grow to become proficient.
- **Two perspectives on success:** The model offers two complementary growth measures for every student that show how much growth is expected as well as how much students should grow to help put them on a path toward achieving their proficiency goals.

After students complete their first Diagnostic, it is possible to use the “generalized Typical Growth and Stretch Growth targets” to begin evaluating growth for every student. Throughout the year, you can monitor student progress toward these targets in order to understand how students are growing compared to students like them and how much they need to grow to close the gap to proficiency. For each subject, the growth targets that *i-Ready* provides are:

- **Typical Growth:** Typical Growth is the average growth of students at each grade and baseline placement level. Typical Growth allows you to see how a student is growing compared to average student growth at the same grade and baseline placement level.
- **Stretch Growth:** For Grades K–8, Stretch Growth shows how much a student who is below grade level is recommended to grow to be on a path toward proficiency or to move a student who is on grade level to more advanced proficiency levels. Students who are further behind have larger growth targets to catch them up, and it will likely take many students more than one year to achieve proficiency. Students who are already proficient have aspirational Stretch Growth targets to advance to or maintain above-grade level proficiency. Stretch Growth targets are designed to be ambitious, yet achievable. The meaning of the Stretch Growth targets for high school students may not provide the same inferences about being on a pathway toward proficiency as it does for Grades K–8, but it still provides educators with a set of aspirational growth targets that can be used to inform instruction.

Progress toward Typical Growth and Stretch Growth allows you to see which students are on track for making greater gains in reaching proficiency and which students will likely need additional intervention, support, and time. For additional information on the *i-Ready* growth model, see the [i-Ready Growth Model Overview Video](#) or [i-Ready Central®](#).

The *i-Ready* growth model's Typical Growth and Stretch Growth targets are based on empirical research conducted on students in Grades K–8 from across the nation. Because of the uniqueness of conducting research on students in high school (e.g., semester and block scheduling that makes through-year growth research challenging, highly regionalized and localized approaches to teaching content and state standards, and course-based instruction), as well as interruptions in learning due to the global pandemic that prevent growth research from being conducted, at this time the Grades 9–12 Typical Growth and Stretch Growth targets are generalized from the Grade 8 targets (see below for the generalized targets). Because the Grades 9–12 targets are generalized from Grade 8, educators should use caution when evaluating growth using these targets.



Additionally, while the Grades 9–12 targets continue to be generalized from the Grade 8 targets, the *i-Ready* growth model does not include Typical Growth and Stretch Growth reports in the *i-Ready* system, and all growth calculations must be done by educators outside of *i-Ready* using the tables provided below. For this reason, we only recommend this approach for use by educators who are comfortable with *i-Ready*'s growth model and have facility with data analysis and who plan to use growth for “low-stakes” purposes.

As with the change-in-placement approach to evaluating growth for students in high school, the generalized Typical Growth and Stretch Growth targets may not be appropriate for students in the Traditional Pathway for mathematics who are receiving instruction in only one domain. For example, because a student in a Traditional Pathway who is taking an algebra course is likely only getting instruction on algebra content, and because the student's overall *i-Ready* score is based on their performance across all four Mathematics domains (i.e., Algebra and Algebraic Thinking, Measurement and Data, Geometry, and Number and Operations) and not just the domain in which the student is receiving instruction, the student's overall score that is used to measure growth under this approach will likely not fully convey the amount of growth in the domain that the student is experiencing.

### Recommendations for When to Use the Generalized Typical Growth and Stretch Growth Targets Approach to Growth in High School Mathematics

	Course in Which Student Is Receiving Instruction	Evaluate Growth Using the Generalized Typical Growth and Stretch Growth Targets?
Traditional Pathway	Algebra 1 or Geometry	No
	Algebra 2 or Later	Yes, this method may be appropriate for students in algebra 2 or later courses that include content across all four Mathematics domains
Integrated Pathway	Grades 9–12 (Integrated I–IV)	Yes

## Generalized Growth Targets for Grades 9–12

### Typical Growth Targets for Grades 9–12

Mathematics				
Fall Diagnostic Placement Level	9	10	11	12
On Grade Level, Mid, Late, or Above	9	9	9	9
On Grade Level, Early	9	9	9	9
One Grade Level Below	9	9	9	9
Two Grade Levels Below	10	10	10	10
Three or More Grade Levels Below	12	12	12	12

Reading				
Fall Diagnostic Placement Level	9	10	11	12
On Grade Level, Mid, Late, or Above	4	4	4	4
On Grade Level, Early	4	4	4	4
One Grade Level Below	9	9	9	9
Two Grade Levels Below	12	12	12	12
Three or More Grade Levels Below	18	18	18	18

### Stretch Growth Targets for Grades 9–12

Mathematics				
Fall Diagnostic Placement Level	9	10	11	12
On Grade Level, Mid, Late, or Above	19	19	19	19
On Grade Level, Early	21	21	21	21
One Grade Level Below	22	22	22	22
Two Grade Levels Below	23	23	23	23
Three or More Grade Levels Below	31	31	31	31

Reading				
Fall Diagnostic Placement Level	9	10	11	12
On Grade Level, Mid, Late, or Above	13	13	13	13
On Grade Level, Early	22	22	22	22
One Grade Level Below	25	25	25	25
Two Grade Levels Below	36	36	36	36
Three or More Grade Levels Below	50	50	50	50