**Accelerating Students Who**

**Are Behind Grade Level:**

**English Language Arts & Literacy, Mathematics,**

**and Science & Technology/Engineering**

Everyday, every classroom teacher considers the needs of their students. Often, teachers are challenged to find ways to support students who are behind to access grade-level standards. This guidance document focuses on how to meet the instructional needs of students performing below grade-level. Here, we focus on how to best utilize the [Massachusetts Curriculum Frameworks](http://www.doe.mass.edu/frameworks) to catch students up and ensure they meet the grade-level standards. In order to do this, teachers need to be fluent in 1) the standards for the grade levels that they are teaching and 2) the vertical progression of standards from previous grades. Understanding the skills and knowledge requirements in previous grades allows educators to more effectively build and support their students’ mastery of their current grade level. Standards may be “backward bundled” into lessons to efficiently maximize instructional time, such that a student who is behind grade-level might be accelerated to be able to access grade-level content.

To support students who are behind grade-level, teachers will need to introduce standards from prior years and support students to master those standards within a single year, while maintaining the grade-appropriate work. This is a difficult task, but one that must be achieved to provide students the best opportunity to successfully meet or exceed college and career-ready expectations.

Teachers can use the Curriculum Frameworks and available resources to:

1. Identify the specific content needed to be taught within a grade level standard
2. Determine the knowledge and skills a student currently possesses that relates to the standard
3. Identify previous standards that build toward the grade-level standard
4. Uncover gaps in a student’s knowledge that would contribute to challenges in accessing the standard
5. Develop an acceleration plan to ensure students meet grade-level standards by strategically bundling standards (including standards from different strands that support building knowledge) with prior standards in the progression

**English Language Arts and Literacy**

Students in 5th grade are expected to apply their knowledge of vocabulary and figurative language to explain the effects of similes and metaphors in conveying meaning within a text (RL 5.4). While studying and analyzing different pieces of literature, a teacher may realize that students are struggling with understanding how authors use similes and metaphors in text to convey meaning.

To accelerate a student who is behind grade level a teacher might:

1. Determine whether the students’ struggles are related to text complexity and if the students are able to access the text.
2. Review Reading Literature, Craft and Structure standard 4 in previous grades to understand the learning progression, skills, and knowledge that students need to have leading up to RL 5.4 (e.g., RL 4.4, RL 3.4).
3. Identify the gaps that exist in students’ knowledge along that progression.
4. Strategically plan instruction that incorporates previous standards into the lesson, for example: how to distinguish literal from figurative language (RL 3.4) and how figurative language enriches a text (RL 4.4).
5. Identify other grade level standards that can be clustered to provide access and multiple opportunities for students to solidify their understanding of the use and impact of similes and metaphors within a text (e.g., SL 5.4, L 5.4).

Ms. Reed’s fifth grade class is reading ***Bud, Not Buddy[[1]](#footnote-1)***. A student continues to struggle with how the author conveys meaning using figurative language, specifically similes (e.g., “My momma says all these poor kids on the road all alone are like dust in the wind”, (Curtis, 73)), and metaphors (e.g., …”no matter how dark the night, when one door closes, don’t worry, because another door opens.” (Curtis, 53)) to interpret the overall meaning of the text.

The teacher, after conferring with the student, identifies that the student is struggling with comprehending the figurative components of the text, which affects their overall comprehension. After analyzing the grade 5 Reading Literature standard 4 (RL 5.4), the teacher reviews the related standard in grade 4 and grade 3.

The teacher creates a targeted learning plan that supports the student in addressing the deficit (e.g., the teacher pulls the student in a small group to explicitly teach the differences between literal and figurative language and why authors use this craft to convey meaning). Simultaneously the teacher engages small groups in collaborative discourse around figurative language and subsequently applies knowledge of the author’s use of figurative language when reading text at grade level (addressing Grade 5 Speaking and Listening Standard and Language Standards to support application and understanding).

**Mathematics**

In 7th grade, students are expected to solve real-world, mathematical problems by computing unit rates associated with ratios of fractions (7.RP.A1). However, the 7th grade teacher may realize that some students are behind grade-level and lack the necessary skills to solve these 7th grade problems.

To accelerate student learning, the teacher might:

1. Identify what knowledge and skills the students currently possess related to rates and ratios of fractions.
2. Use the MA Curriculum Frameworks along with the [Coherence Map (Achieve the Core)](https://achievethecore.org/page/1118/coherence-map) to look up which standards lead up to 7.RP.A1 and should have already been learned (e.g., 6.RP.A.1, 6.RP.A.2, 5.NF.B.3, and 4.NF.A.2).
3. Assess what students can and cannot already do related to 7.RP.A1 along the standards progression and identify what gaps exist in student knowledge.
4. Think about how 7.RP.A might be broken down and organized during instruction.
5. Develop or modify an instructional sequence that focuses on grade appropriate mathematics (7.RP.A1) but sufficiently scaffold students’ learning experiences through the standards (4.NF.A.2 → 5.NF.B.3 → 6.RP.A.1 and 2) to get them to where they need to be (7.RP.A.1).

Mr. J’s 7th grade class is learning how to solve real-world problems using unit rates associated with complex fractions. He refers to the MA Math Curriculum Framework and the [Coherence Map](https://achievethecore.org/page/1118/coherence-map) to look up the grade 6 standards that lead up to 7.RP.A.1.

He notes that while students worked with unit rates involving non-complex fractions (6.RP.A.2), this particular grade 7 standard extends to complex fractions. Further, he sees that coming into grade 7 students need to know ratio language (6.RP.A.1, a prerequisite to 6.RP.A.2 and within-grade connection in the tool) and division of complex fractions (6.NS.A.1) – all skills required for 7.RP.A.1.

To accelerate students who may be behind grade-level, as well as reinforce the concept, Mr. J designs a whole class dialogue that uses the context of the classroom to teach and reinforce the concept and language of ratios. Mr. J asks students, “What is the ratio of students with polo shirts to non-polo shirts (part-part)… polo shirts to all students (part-whole) (6.RP.A.1); how many students to one or unit table (6.RP.A.2)…?”. Mr. J also uses student desks (area model) with fractional lengths as scaffolds to teach and reinforce division of complex fractions (6.NS.A.1).

He then follows this up with grade 7 rate problems that involve complex fractions (7.RP.A.1). Mr. J purposefully tailors his questioning to bridge the skills gap as well as prime prior knowledge while remaining focused at the grade level standard.

**Science and Technology/Engineering**

In 8th grade students learn about what causes the seasons (8.MS-ESS1-1b) through developing and using models that explain the cyclical patterns of seasons. A teacher may realize that some students are struggling to correctly model the basic Earth-Sun system.

To accelerate a student who is behind grade level a teacher might:

1. Identify whether the problem is mostly related to content knowledge about the Earth-Sun system, using the practice of modeling (using diagrams, analogies, computer simulations to represent a system or parts of to explain, ask questions or generate data), or both (8.MS-ESS1-1b).
2. Use the [MA STE Curriculum Framework Strand Maps](http://www.doe.mass.edu/stem/standards/StrandMaps.html) to look up previous grade level standards to help determine what the students may already know, and where the students have gaps in their understanding.
3. Bundle the previous grade level standard(s) with the current one(s) to design lessons that incorporate and reinforces content from previous standards (5-ESS1-2, 1-ESS1-1).
4. Incorporate the science and engineering practices into the content to build students’ ability and understanding of how science is applied and practiced in the world. Provide multiple learning experiences for students integrating content and practices. Students will develop knowledge and understanding of content more effectively and quickly through application of the practices to the science content.

Dr. Ford is teaching a unit on the seasons (8.MS-ESS1-1b) to her 8th graders. She quickly realizes that a few of her students do not understand the basics of the Earth’s relationship to the Sun. Using the MA STE Curriculum Framework Strand Maps, she sees that students should have learned about Earth's orbit, rotation, and relationship to the moon using models in 5th grade (5-ESS1-2). In first grade they should have addressed the topics of seasons and patterns of movement of the Sun, Moon, and stars (1-ESS1-1). This helps her create an acceleration plan that includes deliberate student-specific scaffolding, use of models, and tailoring lesson activities that are directly aimed at the missing standards.

The teacher designs a lesson that bundles the content from 5-ESS1-2 and 8.MS-ESS1-1b by having students engage with multiple models showing only the relationship between the Sun, Earth and Moon first. Then, she builds upon that understanding of the relationship by having students develop and revise their models in order to go into the grade-level content of how aspects of that relationship cause the change in seasons.

Dr. Ford ensures that her students use different science practices, such as creating explanations and asking scientific questions, that build their science literacy skills. Although Dr. Ford had to supplement her lesson and explicitly teach a grade 5 standard, the overall goal of the lesson remained focused on the 8th grade standard (8.MS-ESS1-1b) with the necessary pedagogical supports.

1. Curtis, Christopher Paul. Bud, Not Buddy. Thorndike Press, a Part of Gale, Cengage Learning, 2018. [↑](#footnote-ref-1)