## Facilitating Social, Emotional, and Academic Development (SEAD) Through Grade-Level Mathematics Content (Grade 8)

The left-hand column contains sample actions for how SEAD can be effectively integrated into grade-level mathematics instruction, in connection with Standards for Mathematical Practice named in the right-hand column.

Sample Actions	Connection to Standards for Mathematical Practice (SMP)
Promote student engagement and identity by embedding systems and routines such as "stronger and clearer each time" or other routines that allow students to engage in productive struggle and take ownership in their progress and growth toward intended learning outcomes.	MP3: Construct viable arguments and critique the reasoning of others.
Enhance students' mathematical agency by including regular collaborative opportunities for students to work together with others as a team on modeling tasks that provide multiple pathways for success and that require reasoning and problem solving.	MP4: Model with mathematics.
Provide opportunities for students to consider tools they may use to solve a problem and justify their appropriateness. For example, they may choose to graph a function defined by expressions to picture the way one quantity depends on the other or use graphing technology to approximate solutions to a system of equations.	MP5: Use appropriate tools strategically.

The FFC8 Unfinished Learning Guidance documents embrace the most current research around effective mathematics intervention. The documents outline a process for providing Tier 1, Tier 2, and Tier 3 "just-in-time" supports to help students master foundational content standards from previous grades and/or earlier in the current grade-level, so students can access the grade-level unit, lessons, and standards. This approach moves away from traditional remediation practices to focus on accelerating student learning. The tables below show the required prerequisite skills/standards students need to master in order to be successful with grade-level learning, how to diagnose whether students have mastery of these prerequisite skills/standards, and how to take action when students do not have mastery of these prerequisite skills. Illuminate can also be used to help develop a quarterly pre-assessment for these required prerequisite skills. This Illuminate assessment, aligned to the required prerequisite skills/standards could replace the Getting Ready or be used in conjunction with the Getting Ready (within the Diagnose column of the tables below).

The Diagnose column lists the question number(s) from the *SpringBoard* Getting Ready that align to the prerequisite skills/standards listed in the Understand column. In the event that a student does not correctly answer a question(s) on the Getting Ready (or Illuminate pre-assessment), then the teacher(s) can use the resources listed in the Take Action column to provide a reteach opportunity for the student in order for the student to reach mastery (Tier 1 or Tier 2 intervention). In addition, the teacher(s) can explore the tasks aligned to each prerequisite standard within the Coherence Map links contained within the Understand column and utilize these tasks with the student as a reteach opportunity (Tier 1 or Tier 2). ALEKS can be utilized to create additional practice opportunities aligned to the skills/standards contained within the Getting Ready Practice, Mini Lessons, or associated prerequisite standards (Tier 2). Student learning conferences can also be utilized for a teacher(s) to collaborate with an individual student to determine the topic(s) within a student's ALEKS learning pathway that is the most necessary prerequisite knowledge for upcoming lessons of grade-level instruction (Tier 2).

In the event that a student is in need of more intensive Tier 3 support because the student has not yet mastered foundational prerequisite skills/standards to the identified prerequisite skills, the teacher(s) can use the <u>Coherence Map</u> to identify the prerequisite skills/standards for the Required Prerequisite Skills/Standards identified within the tables below. The teacher(s) can then work through a similar unfinished learning and just-in-time support process with the information obtained from the Coherence Map to provide reteach opportunities and supports to continue to provide access to the prerequisite skills for grade-level content.

8.F.A - Define, evaluate, and compare functions. (Quarter 3)			
Understand	Diagnose	Take Action	
Required Prerequisite Skills/Standards 7.RP.A.2 - Recognize and represent proportional relationships between quantities.  Coherence Map 8.F.A	Course 3 Unit 4 Getting Ready  • Questions 1-8	Course 3 Unit 4 Teacher Resources	

Understand	Diagnose	Take Action
Required Prerequisite Skills/Standards 7.RP.A.2 - Recognize and represent proportional relationships between quantities.  Coherence Map 8.F.B	Course 3 Unit 4 Getting Ready  ● Questions 1-8	Course 3 Unit 4 Teacher Resources

8.G.B - Understand and apply the Pythagorean Theorem. (Quarter 3)			
Understand	Diagnose	Take Action	
Required Prerequisite Skills/Standards 6.G.A.3 - Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.  7.G.B.6 - Solve real-world and mathematical problems	Course 3 Unit 3 Getting Ready  • Questions 1, 2, 3, and 7	Course 3 Unit 3 Teacher Resources      Getting Ready Practice     Coordinate Plane     Perimeter and Area     Triangles	
involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.			
Coherence Map <u>8.G.B</u>			

## References:

The Achievement Network, Ltd. 2020. *Important Prerequisite Math Standards*. Retrieved from <a href="https://docs.google.com/document/d/11VIYSdzX1WHt4CYSfRtprf1102a4-IrMZ25ntuK25uk/edit">https://docs.google.com/document/d/11VIYSdzX1WHt4CYSfRtprf1102a4-IrMZ25ntuK25uk/edit</a>.

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