

Lesson	Support Level	Notes
Grade 8 Unit 1		
8.1.1	1. More Chances	Students will have more opportunities to understand the mathematical ideas in this cool-down, so there is no need to slow down or add additional work to the next lessons. Instead, use the results of this cool-down to provide guidance for what to look for and emphasize over the next several lessons to support students in advancing their current understanding.
8.1.2	2. Points to emphasize	If students struggle with identifying the type of transformation in the cool-down, plan to revisit types of transformations when opportunities arise over the next several lessons. For example, in Activity 2 Transformation Information of Lesson 3 make sure to invite multiple students to share their thinking about how they interpreted the data needed to make a transformation.
8.1.3	2. Points to emphasize	If students struggle with identifying transformations from rotations and reflections in the cool-down, plan to distinguishing the types of transformations when opportunities arise over the next several lessons. For example, in Activity 2 Name that Move of Lesson 4, share visuals of the types of transformations that show both the vocabulary and a representation of the movement.
8.1.4	2. Points to emphasize	If students struggle with identifying the type of transformation in the cool-down, plan to focus on identifying types of transformation when opportunities arise over the next several lessons. For example, in Activity 3, Transformations of a segment of Lesson 5, allow multiple students to share their drawings on tracing paper about rotations and translations. Ask students what moves describe a transformation, reflection, or rotation and make sure to invite multiple students to share their thinking about how to describe the three types of transformations.
8.1.5	1. More Chances	Students will have more opportunities to understand the mathematical ideas in this cool-down, so there is no need to slow down or add additional work to the next lessons. Instead, use the results of this cool-down to provide guidance for what to look for and emphasize over the next several lessons to support students in advancing their current understanding.
8.1.6	3. Press pause	If students struggle with this cool-down, and possibly previous, related cool-downs, working with identifying sequences of transformations, make time to revisit the work of Section 1 in the Unit 1, Lesson 4, Activity 2. See the Course Guide for ideas to help students re-engage with earlier work.
8.1.7	2. Points to emphasize	If students struggle with labeling the side lengths and the angle measures in the cool-down, plan to revisit activity 2 in the lesson. For example, in Activity 2 Sides and Angles of Lesson 7, use sequential order in the Geogbra applet and have students use tracing paper or a digital applet to follow along. Make sure to invite multiple students to share their thinking about the angle measures and side lengths.

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8.1.8	2. Points to emphasize	If students struggle with labeling the side lengths and the angle measures in the cool-down, plan to revisit Activity 2 in the lesson. For example, in Activity 2 Rotating a Segment of Lesson 8, use sequential order in the Geogebra applet and have students use tracing paper or a digital applet to follow along. Make sure to invite multiple students to share their thinking about the angle measures and side lengths. Students should share their thinking on how they identified the side lengths and side angles of each polygon.
8.1.9	1. More Chances	Students will have more opportunities to understand the mathematical ideas in this cool-down, so there is no need to slow down or add additional work to the next lessons. Instead, use the results of this cool-down to provide guidance for what to look for and emphasize over the next several lessons to support students in advancing their current understanding.
8.1.10	1. More Chances	Students will have more opportunities to understand the mathematical ideas in this cool-down, so there is no need to slow down or add additional work to the next lessons. Instead, use the results of this cool-down to provide guidance for what to look for and emphasize over the next several lessons to support students in advancing their current understanding.
8.1.11		If students struggle with identifying congruence and rigid transformations in the cool-down, plan to focus on identifying congruence when opportunities arise over the next several lessons. For example, in Activity 2 Congruent Pairs of Lesson 12, provide multiple opportunities for students to share their responses with tracing paper and to demonstrate their thinking or strategy for identifying the congruent pairs.
8.1.12	2. Points to emphasize	If students struggle with identifying congruence and rigid transformations in the cool-down, plan to focus on identifying congruence when opportunities arise over the next lesson. For example, in Activity 1 Not Just The Vertices of Lesson 13, provide multiple opportunities for students to share their responses with tracing paper and to demonstrate their thinking or strategy for finding the sequence of transformations by connecting line segment to line segment.
8.1.13	3. Press pause	By this point in the unit, there should be some student mastery of the concepts in this cool-down. If a student struggles with the concepts in this cool-down are widespread or ongoing, make time to examine related work in Lesson 12 Activities 2–3 Congruent Pairs parts 1 and 2. The Course Guide provides additional ideas for revisiting earlier work.
8.1.14	2. Points to emphasize	If students struggle with this cool-down, review Activity 2, Lesson 14 Cutting Parallel Lines with a transversal. Using tracing paper, along with a partner discussion for the notice and wonders for questions 4 and 5 will emphasize the concept of alternate interior angles being congruent.

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8.1.15	1. More Chances	Students will have more opportunities to understand the mathematical ideas in this cool-down in Lesson 16, so there is no need to slow down or add additional work to the next lessons. Instead, use the results of this cool-down to provide guidance for what to look for and emphasize over the next lesson to support students in advancing their current understanding.
8.1.16	2. Points to emphasize	If students struggle with sum of interior angles in triangles in the cool-down, plan to revisit Activity 3, Every Triangle in the World of Lesson 16 to emphasize the argument of that the sum of all angles in a triangle is 180 degrees. The purpose of this activity is to provide a complete argument, not depending on the grid, of why the sum of the three angles in a triangle is 180 degrees. Revisiting this activity will emphasize the key understanding and concept of the sum of interior angles.
8.1.17	n/a	N/A
Grade 8 Unit 2		
8.2.1	1. More Chances	Students will have more opportunities to understand the mathematical ideas in this cool-down, so there is no need to slow down or add additional work to the next lessons. Instead, use the results of this cool-down to provide guidance for what to look for and emphasize over the next several lessons to support students in advancing their current understanding.
8.2.2	2. Points to emphasize	If students struggle with scaling use the center of dilation in the cool-down, plan to revisit sequences of transformations and dilations when opportunities arise over the next several lessons. For example, in Activity 2 Dilation Obstacle Course of Lesson 3, make sure to invite multiple students to share their thinking about the relationship of scale factors to the dilation.
8.2.3	2. Points to emphasize	If students struggle with providing reasoning for identifying the center of a dilation in the cool-down, plan to revisit identifying center points of dilations when opportunities arise over the next several lessons. Also, consider spending more time on the lesson synthesis by annotating the learning goals and sharing students' understanding. For example, in Activity 2 Dilations on a Grid of Lesson 4, emphasize how the methods of finding a dilation are the same with or without a grid.
8.2.4	3. Press pause	If students struggle with this cool-down, and possibly previous related cool-downs, working with drawing dilations using scale factors make time to revisit the work of Lesson 4: Dilations on a Square Grid. See the Course Guide for ideas to help students re-engage with earlier work.

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8.2.5	2. Points to emphasize	If students struggle with describing the dilation in the cool-down, plan to revisit the sequence of transformations for a dilation in the activity and lesson synthesis of this lesson. For example, in Activity 1: Many Dilations of the Same Triangle of Lesson 5, make sure to invite multiple students to share their thinking about how the size of the scale factor impacts the size of the dilation.
8.2.6	2. Points to emphasize	If students struggle with identifying the sequence of transformations for the dilation in the cool-down, plan to focus on sequences of transformations in Activity 2 of the lesson. For example, in Activity 2 Similarity Transformations of Lesson 6 ask students to recall the three types of rigid transformations and make sure to invite multiple students to share their thinking about sequences of the transformations they selected.
8.2.7	2. Points to emphasize	If students struggle with identifying how two figures are similar in the cool-down, plan to focus on similarity and congruence concepts when in this lesson, revisit the warm-up activity for students to share their thinking on congruence. For example, in Activity 1: All, Some, None: Congruence and Similarity of Lesson 7, make sure to invite multiple students to share their thinking about congruence and similarity.
8.2.8	2. Points to emphasize	If students struggle identifying similarity in triangles working with similar triangles, revisit Activity 3 Similar Figures in a Regular Pentagon of Lesson 8 which will allow students to share thinking on similarity using both similar side lengths and congruent angles.
8.2.9	2. Points to emphasize	If students struggle with identifying side length quotients in similar triangles in the cool-down, plan to revisit Activity 2 Quotients of Sides Within Similar Triangles of Lesson 9. In this activity, make sure to invite multiple students to share their thinking about how the division of side lengths result in similar triangles.
8.2.10	2. Points to emphasize	If students struggle with identifying slope in the cool-down, plan to revisit slope and its identification when opportunities arise over the next several lessons. Explain that whenever we have a (non vertical, non horizontal) line, we can construct triangles like these where one side is horizontal and one side is vertical, and the quotient of the length of the vertical side and the horizontal side will always be the same. This number is called the slope of the line. For example, in Activity 2 Similar Triangles on the Same Line of Lesson 10, make sure to invite multiple students to share their thinking about identifying the slope.
8.2.11	2. Points to emphasize	If students struggle with explaining how to find slope in the cool-down, plan to focus on strategies for finding slope when opportunities arise in the next lesson. For example, in Activity 2, Writing Relationships from Two Points of Lesson 12, ask students to share how they arrived at their equations. Also, ask them how the equation helps to determine whether or not this identifies the slope.

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8.2.12	2. Points to emphasize	If students struggle with identifying a point on a line using equations in the cool-down, plan to revisit equations for lines from Activity 2 What We Mean by an equation of a line Lesson 11. Be sure to emphasize that the equation describes the relationship between the x- and y-coordinate for every point on the line except (0, 0).
8.2.13	n/a	As the final culminating lesson for the unit, students will apply the concepts of dilations, similarity and slope.