

Forward Planning Tool

This tool can be used to provide just-in-time corequisite support to students by connecting prerequisite standards or concepts—with known unfinished learning—to future grade-level standards. It can be used in conjunction with the **Forward Planning | Standards Snapshot Tool**.

Planning to address unfinished learning that occurred in: Grade Level/Course and Concept 8th Grade Graphing and Geometry

Guiding Questions:

1. To *what* future work is the specific concept/standard connected?
2. *How* will the concept/standard be connected?

2020-2021 Identified Unfinished Learning: 8th Grade Measurement and Data Standards	2021-2022 Alg. I Connected Standards	2022-2023 Geometry Connected Standards	Not an essential prerequisite
8.EE.B.8.a Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.	A-REI.C.6 Spend extra time in Algebra I defining a system, writing a system of equations for a problem, graphing to find the solutions, and the connection between the intersection of the graph and the solution to the system.		
8.EE.B.8.b Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.	A-REI.C.6 Will teach algebraic methods in Algebra. Connect no/ininitely/many solutions to the graph and the algebraic equations.		
8.EE.B.8.c Solve real-world and mathematical problems leading to two linear equations in two variables. <i>For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.</i>	A-REI.C.6		

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8.G.A.1.a Verify experimentally the properties of rotations, reflections, and translations: Lines are taken to lines, and line segments to line segments of the same length.		G-CO.A.2, G-CO.A.4 Teachers will need to recognize that formal names, definitions, and properties of transformations may not be known by students.	
8.G.A.1.b Verify experimentally the properties of rotations, reflections, and translations: Angles are taken to angles of the same measure.		G-CO.A.2	
8.G.A.1.c Verify experimentally the properties of rotations, reflections, and translations: Parallel lines are taken to parallel lines.		G-CO.A.2	
8.G.A.2 Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.		G-CO.A.5, G-CO.B.6	
8.G.A.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.		G-CO.A.2 (G-CO.A.5, G-SRT.A.1)	
8.G.A.4 Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.		G-SRT.A.2	

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<p>8.G.A.5</p> <p>Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. <i>For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.</i></p>		<p>G-SRT.A.3, G-CO.C.9, G-CO.C.10</p> <p>Teachers may want to allow for a little bit of extra time for exploration around these relationships before moving into formal proofs since students will have missed that opportunity to build the relationships in grade 8.</p>	
<p>8.G.B.6</p> <p>Explain a proof of the Pythagorean Theorem and its converse.</p>		<p>G-SRT.B.4</p> <p>Teachers may want to include a little bit more exploration of the Pythagorean Theorem before going directly to a proof by similarity since students will not have had that experience in grade 8.</p>	
<p>8.G.B.7</p> <p>Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.</p>		<p>G-SRT.C.8</p>	
<p>8.G.B.8</p> <p>Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.</p>		<p>When addressing G-SRT.C.8, teachers can develop the distance formula as an application of the Pythagorean theorem. Then students will have the distance formula to use when attending to the following standards: G-GPE.A.1, G-GPE.A.2, G-GPE.A.3, G-GPE.A.4, G-GPE.A.7.</p>	

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<p>8.G.C.9</p> <p>Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.</p>		<p>Teachers will need to allow a bit of time for more exploration of volume formulas when attending to G-GMD.A.1 and G-GMD.A.2 since students will not have had that opportunity in grade 8. Then students will have the formulas to use when addressing G-GMD.A.3, G-MG.A.1, G-MG.A.2.</p>	