

## 8<sup>th</sup> Grade Module 2 – The Concept of Congruence

	4 - Mastery	3 - Proficient	2 - Basic	1 - Below Basic	0 - No Evidence
Topic A (8.G.1)	Meets <b>all</b> of the criteria in a Level 3  <b>Completes tasks including synthesis and evaluation</b>	Perform and explain the movements of lines, line segments, angles, and parallel lines for <b>all</b> transformations (rotation, reflection, or translation)	Perform and explain the movements of lines, line segments, angles, and parallel lines for <b>two</b> transformations (rotation, reflection, or translation)	<b>Perform and explain</b> the movements of lines, line segments, angles, and parallel lines for <b>one</b> transformation (rotation, reflection, or translation)	<b>Shows no evidence of proficiency</b>  Little evidence of reasoning or application to solve the problem.
Topic B (part of 8.G.2)	Meets <b>all</b> of the criteria in a Level 3  <b>Completes tasks including synthesis and evaluation</b>	<b>Describe</b> a sequence of transformations that moved a figure.	<b>Demonstrate a sequence</b> of transformations that moved a figure.	<b>Identify a single transformation</b> that moved a figure	<b>Shows no evidence of proficiency</b>  Little evidence of reasoning or application to solve the problem.
Topic C (8.G.2, 8.G.5)	Meets <b>all</b> of the criteria in a Level 3  <b>Completes tasks including synthesis and evaluation</b>	<b>Describe</b> a sequence of transformations that maps one figure onto another to show two figures are congruent.  <b>Explain and</b> solve problems using more than one of the following relationships: <ul style="list-style-type: none"> <li>• Angle sum of triangles</li> <li>• Exterior angles of triangles</li> <li>• Angles created when parallel lines are cut by a transversal</li> </ul>	<b>Demonstrate</b> a sequence of transformations that maps one figure onto another to show two figures are congruent.  Solve problems using <b>more than one</b> of the following relationships: <ul style="list-style-type: none"> <li>• Angle sum of triangles</li> <li>• Exterior angles of triangles</li> <li>• Angles created when parallel lines are cut by a transversal</li> </ul>	Solve problems using <b>one</b> of the following relationships: <ul style="list-style-type: none"> <li>• Angle sum of triangles</li> <li>• Exterior angles of triangles</li> <li>• Angles created when parallel lines are cut by a transversal</li> </ul>	<b>Shows no evidence of proficiency</b>  Little evidence of reasoning or application to solve the problem.

8.G.1 Verify experimentally the properties of rotations, reflections, and translations:

- a. Lines are taken to lines, and line segments to line segments of the same length.
- b. Angles are taken to angles of the same measure.
- c. Parallel lines are taken to parallel lines.

8.G.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.

8.G.5 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. 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.