# CAR Unit Template

## Unit Title: Mathematics Pythagorean Theorem, Congruence and Similarity – Unit 2 – Module B

**Grade level: Grade 8**

**Timeframe:**

## Essential Questions

## Standards

### Standards (Taught and Assessed):

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

a. Lines are transformed to lines, and line segments to line segments of the same length.

b. Angles are transformed to angles of the same measure.

c. Parallel lines are transformed to parallel lines.

 **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.

 **8.G.A.3** Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.

 **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.

 **8.G.A.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.*

**Key**: Major Cluster Supporting Cluster Additional Cluster

### Highlighted Career Ready Practices and 21st Century Themes/Skills

### Social-Emotional Learning Competencies

## Instructional Plan

Pre-Assessment and Reflection

| **Pre-Assessment** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

| **SLO – WALT****We are learning to/that** | **Student Strategies** | **Formative Assessment** | **Activities and Resources** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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| **8.G.A.1a – WALT** verify that when a reflection, rotation, and/or translation is performed, lines are transformed to lines, and line segments to line segments of the same length |  |  |  |  |
| **8.G.A.1b – WALT** verify that when a reflection, rotation, and/or translation is performed, angles are transformed to angles of the same measure |  |  |  |  |
| **8.G.A.1c – WALT** verify that when a reflection, rotation, and/or translation is performed, parallel lines are transformed to parallel lines |  |  |  |  |
| **8.G.A.2 – WALT** two figures are congruent if one can be obtained from the other by a sequence of rotations, reflections, and/or translations |  |  |  |  |
| **8.G.A.2 – WALT** describe a sequence of transformations that maps one congruent figure onto another |  |  |  |  |
| **8.G.A.3 – WALT** dilate, translate, rotate, and reflect two-dimensional figures on a coordinate plane |  |  |  |  |
| **8.G.A.3 – WALT** describe the effects of dilations, translations, rotations, and reflections using coordinates |  |  |  |  |
| **8.G.A.4 – WALT** two figures are similar if one can be obtained from the other by a sequence of dilations and rotations, reflections, and/or translations |  |  |  |  |
| **8.G.A.4 – WALT** describe a sequence of transformations that maps one similar figure onto another |  |  |  |  |
| **8.G.A.5 – WALT** the sum of the interior angles of a triangle is 180 degrees |  |  |  |  |
| **8.G.A.5 – WALT** the measure of an exterior angle of a triangle is equal to the sum of the two remote interior angles |  |  |  |  |
| **8.G.A.5 – WALT** when parallel lines are cut by a transversal, corresponding, alternate interior, and alternate exterior angles are congruent |  |  |  |  |
| **8.G.A.5 – WALT** if two sets of corresponding angles in two triangles are congruent, then the triangles are similar |  |  |  |  |
| **8.G.A.5 – WALT** use facts about angles to construct an informal argument |  |  |  |  |

Benchmark Assessment 1

| **Benchmark Assessment** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections**  |
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Benchmark Assessment 2

| **Benchmark Assessment**  | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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Summative Assessments (add rows as needed)

| **Summative Assessment**  | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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Interdisciplinary Connections

| **Interdisciplinary Connections** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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