Unit Plan Template

UNIT: Transformations and Triangles TIME FRAME: 2 Months TEACHER: Mark Gardella

<table>
<tr><td colspan="2">Unit Summary and Rationale:
Experiment with transformations in the plane.
Understand congruence in terms of rigid motions.</td></tr>
<tr><td colspan="2">Unit Standards: Teachers should list the standards to be addressed within the unit.
HSG-CO.A.2, HSG-CO.A.4, HSG-CO.A.5, HSG-CO.B.6, HSG-CO.A.3, HSG-MG.A.3, HSG-SRT.A.1a, HSG-SRT.A.1b, HSG-SRT.A.2, HSG-CO.C.10, HSG-MG.A.1, HSG-CO.B.7, HSG-C0.B.8, HSG-CO.D.13, HSG-SRT.B.5HSG-GPE.B.4, HSG-CO.C.9, HSG-CO.D.12, HSG-C.A.3</td></tr>
<tr><td>Learning Tasks: Teachers list the various tasks students will engage in throughout the unit. (Content) – Should be separated by Reading Tasks, Writing Tasks, Discussion Tasks, and Language/Vocabulary Tasks.

Practice Worksheet A and B
Puzzle Worksheets
Whiteboard review activity
Basic Skills Review WS</td><td>Skills: These are what the students need to be able to do in relation to the tasks. These skills are translated statements from the standards and represent measurable verbs, instructional targets, and descriptors for the sake of consistency across teachers in the same content area and grade level.
● predict the outcome of a transformation on a figure.
● given a description of the rigid motions, transform figures.
● given two figures, decide if they are congruent by applying rigid motions.
● given that two triangles are congruent based on rigid motion, show that corresponding pairs of sides and angles are congruent.
● given that corresponding pairs of sides and angles of two triangles are congruent, show, using rigid motion (transformations) that they are congruent.
● show and explain the criteria for Angle-Side-Angle triangle congruence.
● show and explain the criteria for Side-Angle-Side triangle congruence.
● show and explain the criteria for Side-Side-Side triangle congruence.
● explain the relation of the criteria for triangle congruence to congruence in terms of rigid motion.
● perform dilations in order to verify the</td></tr>
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	impact of dilations on lines and line segments. ● construct and explain proofs of theorems about triangles including: - sum of interior angles of a triangle; - congruence of base angles of an isosceles triangle; - the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; - the medians of a triangle meet at a point. ● construct and explain proofs of theorems about triangles including: - a line parallel to one side of a triangle divides the other two sides proportionally; - the Pythagorean Theorem (using triangle similarity).

Key Terms / Vocabulary:

Transformation, image, preimage, translation, rigid motion, reflection, line of reflection, line symmetry, line of symmetry, rotation, center of rotation, angle of rotation, rotational symmetry, congruent figures, dilation, center of dilation, scale factor, enlargement, reduction, similar figures, interior angles, exterior angles, corresponding parts, legs, vertex angle, base, base angles, hypotenuse, equidistant, median of a triangle, altitude of a triangle, midsegment of a triangle

Assessments: List types of assessments that will be used throughout the course of the unit. *If you do not have assessments for this unit, they should be created before moving on to the lesson design* (Label Assessments as Diagnostic, Formative, or Summative)

4.1-4.3 Quiz
Chapter 4 Test
5.1-5.4 Quiz
Chapter 5 Test
Chapter 6 Test

Learning Activities: Any agreed upon activities/lesson plans can be listed here. Independent work Group work	**Resources / Text Selections:** (generated by both teacher and student?) Teachers will list the titles/genres for study: Big Ideas worksheets and online assignments

Additional Notes: