Topic 1 Outline Lesson Plan - GEOMETRY

**TRANSFORMATIONS AND CONGRUENCE**

**8/21 – 8/22 Monday/Tuesday – Section 1.1 – Segment Length and Midpoints (MAFS.912.1-G.CO.1.1,.4.12) & Section 1.2 – Angle Measure and Angle Bisector (MAFS.912.G-CO.1.1,.4.12)**

**Essential Question:** How do you draw a segment and measure its length?

How is measuring an angle similar to and different from measuring a line segment?

**Vocabulary:** point, line, plane, line segment, end points, ray, coplanar, parallel, collinear, postulate, angle, vertex, sides, degrees

**Classwork:** Evaluate pg. 14-15 # 7, 9, 11, 15, 22

Evaluate pg. 25 # 4, 5, 6, 7, 8, 9

**Home Learning:** Topic 1 Handout

**8/23 – 8/24 Wednesday/Thursday – Section 1.4 – Reasoning and Proof (MAFS.912.-G.CO.3.9) & Section 1.3 – Representing and Describing Transformations (MAFS.912.G-CO.1.2)**

**Essential Question:** How do you go about proving a statement?

How can you describe Transformations in the coordinate plane using Algebraic representations and using words?

**Vocabulary:** Conjecture, Inductive Reasoning, Deductive Reasoning, Theorem, Counter Example, Linear Pair, Transformation, Pre-image, Image, Rigid motion

**Classwork:** Evaluate pg. 54-56 # 11, 17, 19, 24, 28

Evaluate pg. 38-42 # 1, 3, 10, 11, 15, 16

**Home Learning:** Topic 1 Handout

**8/25 – 8/28 Friday/Monday – Section 2.1 – Translations (MAFS.912.-G.CO.1.4,1.2, 1.5)**

**Essential Question:** How do you draw the image of a figure under a Translation?

**Vocabulary:** vector, initial point, terminal point, translation

**Classwork:** Evaluate pg. 69-71 # 6, 10, 11, 15, 17, 21

**Home Learning:** Topic 1 Handout

**8/29 – 8/30 Tuesday/Wednesday – Section 2.2 – Reflections (MAFS.912.1-G.CO.1.2,1.4,1.5)**

**Essential Question:** How do you draw the image of a figure under a reflection?

**Vocabulary:** Perpendicular lines, perpendicular bisector, reflection

**Classwork:** Evaluate pg. 82-84 # 9, 12, 14, 20, 24

**Home Learning:** Topic 1 Handout

**8/31 – 9/1 Thursday/Friday – Section 2.3 – Rotations (MAFS.912.-G.CO.1.2,1.4,1.5) & Section 2.4 – Investigating Symmetry (MAFS.912.G-CO.1.3)**

**Essential Question:** How do you draw the image of a figure under a Rotation?

How do you determine whether a figure has line symmetry or rotation symmetry?

**Vocabulary:** Rotation, center of rotation, angle of rotation, symmetry, line of symmetry, rotational symmetry, angle of rotational symmetry

**Classwork:** Evaluate pg. 95-99 # 3, 7, 9, 12, 16, 21, 22

Evaluate pg. 106-107 # 2, 4, 10, 11, 12, 16

**Home Learning:** Topic 1 Handout

**9/5 – 9/6 Tuesday/Wednesday – Section 3.1 – Sequences of Transformations (MAFS.912.-G.CO.1.5,2.6, 1.2)**

**Essential Question:** What happens when you apply more than one transformation to a figure?

**Vocabulary:**

**Classwork:** Evaluate pg. 122-125 # 2, 3, 4, 5, 8, 13, 14, 15, 16, 17, 18, 19, 23

**Home Learning:** Topic 1 Handout

**9/7 – 9/8 Thursday/Friday – Section 3.2 – Proving figures are Congruent using Rigid Motions (MAFS.912.-G.CO.2.6,1.5)**

**Essential Question:** How can you determine whether two figures are congruent?

**Vocabulary:**

**Classwork:** Evaluate pg. 131-136 # 5,8,12,14,15,16,17,21,22, 28,32

**Home Learning:** Topic 1 Handout

**9/11 – 9/12 Monday/Tuesday – Section 3.3 – Corresponding Parts of Congruent Figures are Congruent (MAFS.912.-G.CO.2.7)**

**Essential Question:** What can you conclude about two figures that are congruent?

**Vocabulary:** Corresponding Parts of Congruent Figures are Congruent, Reflexive Property of Congruence, Symmetric Property of Congruence, Transitive Property of Congruence

**Classwork:** Evaluate pg. 144-148 # 2,3,6,7,15,20,21,23

**Home Learning:** Topic 1 Handout

**9/13 Wednesday –** Test Review

**9/14 Thursday –** Topic 1 Assessment

**Topic 1 Home Learning Assignment – Due Wednesday 9/13/17**