UNIT OF STUDY

Title: Unit 4	**Subject/Course**: Geometry	**Length:** 10 days
Topic: Congruent Geometric Figures	**Grade:** 10th	**Designer:** Boyd

UNIT GOALS AND EXPECTATIONS

IMPORTANT CONCEPTS/UNDERSTANDINGS:	**ESSENTIAL QUESTIONS:**
• Use theorems to prove triangles are congruent • Prove triangles are similar using theorems • The sum of interior angles can be used to find the measures of missing angles	• What are the congruent triangle theorems? • How are the parts of a triangle used to prove congruency? • How are the parts of a triangle used to prove similarity? • What is the sum of interior angles of a triangle?
STUDENT LEARNING EXPECTATIONS: • T.2.G.1 Apply *congruence* (SSS …) and *similarity* (AA ...) correspondences and properties of figures to find missing parts of geometric figures and provide logical justification	
SPECIFIC DECLARATIVE KNOWLEDGE – What I know • Vocabulary words: equilateral triangle, isosceles triangle, scalene triangle, acute triangle, obtuse triangle, equiangular triangle, right triangle, vertex of a triangle, legs of triangle, hypotenuse, interior angle, exterior angle, congruent, corresponding angles, corresponding sides, base angles, vertex angles • Identify properties of congruent figures • Identify corresponding parts of triangles • Classify triangles using properties of angles and sides	**SPECIFIC PROCEDURAL KNOWLEDGE – What I need to do** • Use ASA, SSS, SAS, AAS, HL theorems to prove triangles are congruent • Find one additional fact to prove triangles are congruent • Prove triangles are congruent using angle bisectors, perpendicular lines, parallel lines, midpoint , and perpendicular bisectors • Identify congruent parts of triangles • Use AA theorem to prove triangles are similar • Sketch types of triangles using angles and sides • Find interior and exterior angles in triangles • Finding measures of angles of triangles using algebraic expressions and equations

UNIT ASSESSMENTS
(Include tasks related to Dimensions 3 and 4 and Bloom's Taxonomy)

- Open Response Unit 4 question 1 finding measures of angles in a triangle
- Open Response Unit 4 question 3 finding measures of angles in a right triangle

Traditional Assessments:	Other Evidence of Learning:
• Standardized Test Practice Quiz (naming triangles) • Proving Congruent Triangles Quiz • Unit 4 Test • TLI module test • Vocabulary Quiz	• Homework • Class work

ACTIVITIES AND LEARNING EXPERIENCES	Resources
• Introduce vocabulary using 4-step vocabulary strategy • Activate prior knowledge by having students list what they know about scalene, isosceles, and equilateral, acute, obtuse, and right triangles • Use the sum of interior angles of a triangle to model finding measures of angles algebraically • Model congruency theorems • Matching properties of congruent triangles Activity (daily) • Use Mastery Math materials to practice concepts • Investigating Congruent Triangles Activity • Explore the relationship between perimeters and areas of similar triangles.	• 4-step sheets • Mastery Math Notebook • Text book pg. 211, pencils, blank paper
Career Connections	
Architecture, Civil Engineer, Construction Manager, Hydrologist	