

Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
Geometry Chapter 4 Congruent Triangles	10	2 nd	14 days
TEKS/Student Expectations		Examples/Specifications:	
<p>(G.1) Geometric structure. The student understands the structure of, and relationships within, an axiomatic system. The student is expected to:</p> <p>(A) develop an awareness of the structure of a mathematical system, connecting definitions, postulates, logical reasoning, and theorems;</p> <p>(G.2) Geometric structure. The student analyzes geometric relationships in order to make and verify conjectures. The student is expected to:</p> <p>(A) use constructions to explore attributes of geometric figures and to make conjectures about geometric relationships; and</p> <p>(B) make conjectures about angles, lines, polygons, circles, and three-dimensional figures and determine the validity of the conjectures, choosing from a variety of approaches such as coordinate, transformational, or axiomatic.</p> <p>(G.3) Geometric structure. The student applies logical reasoning to justify and prove mathematical statements. The student is expected to:</p> <p>(B) construct and justify statements about geometric figures and their properties;</p> <p>(C) use logical reasoning to prove statements are true and find counter examples to disprove statements that are false;</p> <p>(D) use inductive reasoning to formulate a conjecture; and</p> <p>(E) use deductive reasoning to prove a statement.</p> <p>(G.4) Geometric structure. The student uses a variety of representations to describe geometric relationships and solve problems. The student is expected to select an appropriate representation (concrete, pictorial, graphical, verbal, or symbolic) in order to solve problems.</p> <p>(G.5) Geometric patterns. The student uses a variety of</p>		.	

representations to describe geometric relationships and solve problems.

The student is expected to:

(A) use numeric and geometric patterns to develop algebraic expressions representing geometric properties;

(B) use numeric and geometric patterns to make generalizations about geometric properties, including properties of polygons, ratios in similar figures and solids, and angle relationships in polygons and circles;

(G.7) **Dimensionality and the geometry of location.** The student understands that coordinate systems provide convenient and efficient ways of representing geometric figures and uses them accordingly.

The student is expected to:

(A) use one- and two-dimensional coordinate systems to represent points, lines, rays, line segments, and figures;

(C) derive and use formulas involving length, slope, and midpoint.

(G.9) **Congruence and the geometry of size.** The student analyzes properties and describes relationships in geometric figures.

The student is expected to:

(B) formulate and test conjectures about the properties and attributes of polygons and their component parts based on explorations and concrete models;

(G.10) **Congruence and the geometry of size.** The student applies the concept of congruence to justify properties of figures and solve problems.

The student is expected to:

(A) use congruence transformations to make conjectures and justify properties of geometric figures including figures represented on a coordinate plane; and

(B) justify and apply triangle congruence relationships.

a.3, a.4, a.5, a.6, A.3.B, A.4.B

Language of Instruction:

Instructional Resources/Textbook Correlations:

<p>Triangle: scalene, isosceles, equilateral, acute, right, obtuse, equiangular Interior angles Exterior angles Corollary to a theorem Congruent figures Corresponding parts Right triangle: legs, hypotenuse Flow proof Isosceles triangle: legs, vertex angle, base, base angles Transformation Image Congruence transformations: translation, reflection, rotation</p>	
	Weblinks/Other Resources:
Evaluation/External Assessment/Local Assessment:	
	Best Instruction Timeline: