

## Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
Geometry Chapter 6 Similarity	10	3 <sup>rd</sup>	12 days
TEKS/Student Expectations		Examples/Specifications:	
<p>(G.1) <b>Geometric structure.</b> 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) <b>Geometric structure.</b> 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;</p> <p>(G.3) <b>Geometric structure.</b> 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>(E) use deductive reasoning to prove a statement.</p> <p>(G.5) <b>Geometric patterns.</b> The student uses a variety of representations to describe geometric relationships and solve problems. The student is expected to:</p> <p>(A) use numeric and geometric patterns to develop algebraic expressions representing geometric properties;</p> <p>(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;</p> <p>(C) use properties of transformations and their compositions to make connections between mathematics and the real world, such as tessellations;</p> <p>(G.7) <b>Dimensionality and the geometry of location.</b> The student understands that coordinate systems provide convenient</p>		.	

<p>and efficient ways of representing geometric figures and uses them accordingly.</p> <p>The student is expected to:</p> <p>(A) use one- and two-dimensional coordinate systems to represent points, lines, rays, line segments, and figures;</p> <p>(C) derive and use formulas involving length, slope, and midpoint.</p> <p><b>(G.9) Congruence and the geometry of size.</b> The student analyzes properties and describes relationships in geometric figures.</p> <p>The student is expected to:</p> <p>(B) formulate and test conjectures about the properties and attributes of polygons and their component parts based on explorations and concrete models;</p> <p><b>(G.11) Similarity and the geometry of shape.</b> The student applies the concepts of similarity to justify properties of figures and solve problems.</p> <p>The student is expected to:</p> <p>(A) use and extend similarity properties and transformations to explore and justify conjectures about geometric figures;</p> <p>(B) use ratios to solve problems involving similar figures;</p> <p>(C) develop, apply, and justify triangle similarity relationships, such as right triangle ratios, trigonometric ratios, and Pythagorean triples using a variety of methods; and</p> <p>(D) describe the effect on perimeter, area, and volume when one or more dimensions of a figure are changed and apply this idea in solving problems.</p> <p><b>a.1, a.3, a.5, a.6, A.2.A, A.2.B, A.2.C</b></p>	
<p><b>Language of Instruction:</b></p>	<p><b>Instructional Resources/Textbook Correlations:</b></p>
<p>Ratio</p> <p>Proportion: means, extremes</p> <p>Geometric mean</p> <p>Scale drawing</p> <p>Scale</p> <p>Similar polygons</p> <p>Scale factor of two similar polygons</p> <p>Dilation</p>	

Center of dilation Scale factor of a dilation Reduction Enlargement	<b>Weblinks/Other Resources:</b>
<b>Evaluation/External Assessment/Local Assessment:</b>	<b>Best Instruction Timeline:</b>