

## Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
<b>Geometry</b> <b>Chapter 3</b> Parallel and Perpendicular Lines	10	2 <sup>nd</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>(C) compare and contrast the structures and implications of Euclidean and non-Euclidean geometries.</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; 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) <b>Geometric structure.</b> The student applies logical reasoning to justify and prove mathematical statements. The student is expected to:</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) <b>Geometric structure.</b> 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>		.	

**(G.5) Geometric patterns.** The student uses a variety of 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.6) Dimensionality and the geometry of location.** The student analyzes the relationship between three-dimensional geometric figures and related two-dimensional representations and uses these representations to solve problems.

The student is expected to:

(C) use orthographic and isometric views of three-dimensional geometric figures to represent and construct three-dimensional geometric figures and solve problems.

**(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;

(B) use slopes and equations of lines to investigate geometric relationships, including parallel lines, perpendicular lines, and special segments of triangles and other polygons; and

(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:

(A) formulate and test conjectures about the properties of parallel and perpendicular lines based on explorations and concrete models;

(D) analyze the characteristics of polyhedra and other three-

<p>dimensional figures and their component parts based on explorations and concrete models.</p> <p><b>a.1, a.2, a.4, a.5, a.6, A.6.A, A.6.C, A.6.E, A.6.F</b></p>	
<p><b>Language of Instruction:</b></p>	<p><b>Instructional Resources/Textbook Correlations:</b></p>
<p>Parallel lines  Skew lines  Parallel planes  Transversal  Corresponding angles  Alternate interior angles  Alternate exterior angles  Consecutive interior angles  Paragraph proof  Slope  Slope-intercept form  Standard form  Distance from a point to a line</p>	<p><b>Weblinks/Other Resources:</b></p>
<p><b>Evaluation/External Assessment/Local Assessment:</b></p>	<p><b>Best Instruction Timeline:</b></p>