

Geometry Curriculum Bundle #8

Title	Suggested Dates
Polygons	February 1 – February 19 (13 days)



Big Idea/Enduring Understanding	Guiding Questions
Angles and segments can be used to define polygons.	<ol style="list-style-type: none"> 1. How do you determine the interior angles of a polygon? 2. How do you determine the exterior angle of a polygon? 3. How are regular polygons different than irregular polygons?

The resources included here provide teaching examples and/or meaningful learning experiences to address the District Curriculum. In order to address the TEKS to the proper depth and complexity, teachers are encouraged to use resources to the degree that they are congruent with the TEKS and research-based best practices. Teaching using only the suggested resources does not guarantee student mastery of all standards. Teachers must use professional judgment to select among these and/or other resources to teach the District Curriculum.

Knowledge & Skills with Student Expectations	District Specificity/Examples	Suggested Resources (See note above)	
PSAT online score report - one day has been planned in this bundle to go to computer lab to see report and SAT study plans with students in 10th and 11th grade only.			
<p>G.9 Congruence and the Geometry of Size. The student analyzes properties and describes relationships in geometric figures.</p> <p>G.9B The student formulates and tests conjectures about the properties and attributes of polygons and their component parts based on explorations and concrete models.</p>	<ul style="list-style-type: none"> • Recognize polygons (through dodecagons & n-gons) • Use the properties of quadrilaterals, triangles, and regular polygons 	<p>Discovering: 1.4</p> <p>Holt: 6.1, 6.2</p>	<p>Dana Center: Ch. 3 Properties – Diagonals & Polygons</p> <p>A&M: Ch 5 (Fall)</p> <p>From mathopenref.com polygons</p>
<p>G.1 Geometric Structure. The student understands the structure of, and relationships within, an axiomatic system.</p> <p>G.1A The student develops an awareness of the structure of a mathematical system, connecting definitions, postulates, logical reasoning, and theorems.</p>	<ul style="list-style-type: none"> • Use manipulatives and technology to draw conclusions and discover relationships about geometric shapes and their properties. 		<p>Dana Center: Chapter 3 – Properties of Figures Diagonals & Polygons</p> <p>Geometry LTF: p. 86</p>
<p>G.5 Geometric Patterns. The student uses a variety of representations to describe geometric relationships and solve problems.</p> <p>G.5A The student uses numeric and geometric patterns to develop algebraic expressions representing geometric properties.</p>	<ul style="list-style-type: none"> • Find the sums of interior and exterior angles of polygons 	<p>Discovering: 2.4 (Party Handshakes)</p> <p>Holt: 6.1</p>	<p>Dana Center Ch. 4 Area & Perimeter</p> <p>A&M: Ch 5 (Fall)</p> <p>From mathopenref.com Exterior angles Triangle in polygon</p>

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<p>G.5 Geometric Patterns. The student uses a variety of representations to describe geometric relationships and solve problems.</p> <p>G.5B The student uses 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>	<ul style="list-style-type: none"> • Sums of interior angles • Measures of interior and exterior angles, including regular polygons • Relationship of interior and exterior angles • Relationship of sides to number of diagonals 		
<p>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.</p> <p>G.7A The student uses one- and two-dimensional coordinate systems to represent points, lines, rays, line segments, and figures</p>	<ul style="list-style-type: none"> • Polygons 		
<p>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.</p> <p>G.7B The student uses slopes and equations of lines to investigate geometric relationships, including parallel lines, perpendicular lines, and special segments of triangles and other polygons.</p>	<ul style="list-style-type: none"> • Using the slopes of lines that include sides of a quadrilateral to determine classification • Midsegment of a trapezoid & diagonals of polygons 		<p>A&M: Ch 6 (Fall)</p>