

Geometry Curriculum Bundle #3

Title	Suggested Dates
Triangles - Classification	October 5 – October 23 (14 days)



Big Idea/Enduring Understanding	Guiding Questions
Right triangles can be constructed and used to find the distance between two points.	<ol style="list-style-type: none"> 1. How do you classify triangles by sides and angles? 2. How do you use the Pythagorean theorem to find distance? 3. How does the converse of the Pythagorean theorem help classify triangles?

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 sample problems intended for use as warm-ups starting on Sept 17th can be found in the campus shared folder called "PSAT Math Preparation 2009-10"			
<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"> • Pythagorean Theorem triples • Find the sums of interior and exterior angles of polygons (triangles) • Classify triangles • Isosceles triangles 	<p>Discovering: 1.5 (Triangles only), 4.1 - 4.3, 9.1 – 9.2, Algebra Skills 8, 9.3 – 9.4</p> <p>Discovering Geometry Demonstrations with Geometer’s Sketchpad: 4.1 Triangle Sum</p> <p>Holt: Ch. 4; 4.1, 4.2, 4.8</p>	<p>A&M: Ch 5,7 (Fall)</p> <p>From mathopenref.com triangles 3,4,5</p>
<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> <p>Teacher Note: Ratio of similar figures and solids are covered in Bundle 5.</p>	<ul style="list-style-type: none"> • Sums of interior angles • Triangle Inequality Theorem • Relationship of interior and exterior angles 	<p>Discovering: 12.1, 12.2, Exploration – Indirect Measurement</p> <p>Discovering Geometry Demonstrations with Geometer’s Sketchpad: 5.2 Exterior Angles</p> <p>Holt: 4.2</p>	<p>A&M: Ch 5,7 (Fall)</p> <p>From mathopenref.com Exterior angle theorem</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.5D The student identifies and applies patterns from right triangles to solve problems, including special right triangles (45-45-90 and 30-60-90) and triangles whose sides are Pythagorean triples.</p>	<ul style="list-style-type: none"> • Connect the 30-60-90 right triangle relationships to the equilateral triangle and the Pythagorean Theorem • Connect the 45-45-90 right triangle relationship to the square and to the Pythagorean Theorem 	<p>Holt: 5.7, 5.8</p>	<p>Dana Center – Ch.2 Patterns, Conjectures & Proof</p> <p>Geometry LTF: p. 34, 40</p> <p>A&M: Ch 7 (Fall)</p>
<p>G.8 Congruence and the Geometry of Size. The student uses tools to determine measurements of geometric figures and extends measurement concepts to find area, perimeter, and volume in problem situations.</p> <p>G.8C The student derives, extends, and uses the Pythagorean Theorem.</p> <p>Teacher Note: Review Simplifying Radicals</p>	<ul style="list-style-type: none"> • Make connection between the distance formula and the Pythagorean Theorem • Make connections to concrete models, pictures, and figures • Determine if three given side lengths will form a triangle. If so, classify as acute, right or obtuse triangle. • Understand the verbal relationship that is the Pythagorean Theorem rather than just the context of “a”, “b”, and “c”. • Pythagorean Triples 	<p>Holt: 5.5</p>	<p>A&M: Ch 7 (Fall)</p> <p>From mathopenref.com TRI inequality thrm</p>