


## Geometry Curriculum Bundle #2

<b>Title</b>		<b>Suggested Dates</b>
Slopes of Lines & Angles Formed by Parallel Lines		September 14 – October 2 (14 days)

<b>Big Idea/Enduring Understanding</b>	<b>Guiding Questions</b>
Relationships between the angles formed by parallel lines and their transversal can be used to identify geometric figures.	<ol style="list-style-type: none"> <li>1. What are the different methods to determine slope?</li> <li>2. What are the angles formed by parallel lines and transversals?</li> <li>3. How are these angles related to each other and angles formed by other intersections?</li> </ol>

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)	
<b>PSAT sample problems intended for use as warm-ups starting on Sept 17<sup>th</sup> can be found in the campus shared folder called "PSAT Math Preparation 2009-10"</b>			
<p><b>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.</b></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"> <li>• Using slopes to determine if lines are parallel, perpendicular or neither.</li> </ul>	<p><b>Holt:</b> Ch. 3</p> <p><b>Discovering:</b> Algebra Skills 2 Algebra Skills 3 Supplement with Holt 3.5</p> <p><b>Discovering Geometry using Geometer's Sketchpad:</b> Using Your Algebra Skills 2</p>	<p><b>Algebra I LTF:</b> p. 186</p> <p>From mathopenref.com <a href="#">slope</a></p>
<p><b>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.</b></p> <p>G.7C The student derives and uses formulas involving length, slope, and midpoint.</p>	<ul style="list-style-type: none"> <li>• Use slope to determine relationship between perpendicular and parallel lines.</li> </ul>	<p><b>Holt</b> 3.5 p. 170, 172, 179</p> <p><b>Discovering:</b> Algebra Skills 1</p>	<p><b>A&amp;M:</b> Ch 2 (Fall)</p>

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<p><b>G.9 Congruence and the Geometry of Size. The student analyzes properties and describes relationships in geometric figures.</b></p> <p>G.9A The student formulates and tests conjectures about the properties of parallel and perpendicular lines based on explorations and concrete models.</p>	<ul style="list-style-type: none"> <li>• Find the slopes of lines to determine their relationship (parallel, perpendicular or intersecting)</li> <li>• Define and apply relationships between angles formed when transversals cross parallel lines</li> <li>• Classify special angles formed by a transversal</li> <li>• Student discovery of Mid-segment Theorem, Dual Parallels Theorem, Dual Perpendiculars Theorem and Triangle Proportionality Theorem</li> </ul>	<p><b>Discovering:</b> 2.5, 2.6 (add Same-Side Interior Angles), 3.3, 3.5, 5.4 (preview only), 11.6 (preview only)</p> <p><b>Holt:</b> 3.1 – 3.4, 5.4 (preview only)</p>	<p><b>A&amp;M:</b> Ch 4 (Fall)</p> <p>From mathopenref.com <a href="#">parallel</a></p>
<p><b>A.6 The student understands the meaning of the slope and intercepts of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations.</b></p> <p><b>Teacher Note:</b> This is algebra review for parallel and perpendicular lines.</p>	<ul style="list-style-type: none"> <li>• Connect the slope to rate of change and the intercepts to the context of a problem situation.</li> <li>• State the rate of change/slope in terms of the units used in the problem situation. Ex. 1 mile/4 hours</li> <li>• Relate the rate of change and its explanation in the different forms of a linear function.</li> <li>• Use various formulas to find the slope and y-intercept.</li> <li>• Write linear equations in slope-intercept, point-slope, and standard forms.</li> </ul>	<p><b>Discovering:</b> Using Algebra Skills 4</p> <p><b>Holt:</b> 3.6</p>	<p><b>Discovering Geometry with Geometer's Sketchpad:</b> Using Your Algebra Skills 4</p> <p>From mathopenref.com <a href="#">slope</a> etc.</p>