

Planned Course: Honors Geometry		Course Number: M307H		Department: Mathematics	
Unit: Quadrilaterals		Grade Level: 9-12		Date Approved: 7/15/08	
Estimated Time: 23 days		Level/Track: Honors			
PA Academic Standards	Core Concepts (in question format) • Skills/Knowledge	Activities/Strategies/Study Skills (identify some activities as remedial or enrichment activities)	Assessments (include types and topics)		

<p>ASSESSMENT ANCHORS M11.C.1.2 Recognize and/or apply properties of angles, triangles, and quadrilaterals. M11.C.3.1 Solve problems using analytic geometry.</p> <p>ACADEMIC STANDARDS 2.9.11 Geometry C. Identify and prove the properties of quadrilaterals involving opposite sides and angles, consecutive sides and angles and diagonals using deductive proofs.</p> <p>2.5.11 Mathematical Problem Solving and Communication B. Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.</p> <p>2.8.11 Algebra and Functions J. Demonstrate the connection between algebraic equations</p>	<p>► What characteristics do the special quadrilaterals have and how are they used to prove quadrilaterals are squares, rhombi, kites, etc.?</p> <ul style="list-style-type: none"> • Student will be able to identify and apply the characteristics of a parallelogram and special parallelograms. • Student will be able to identify and apply the characteristics of kites and trapezoids. • Student will be able to use coordinate geometry to prove characteristics of special quadrilaterals. 	<p>► The student will define and classify special quadrilaterals.</p> <p>► The student will prove the characteristics of parallelograms and special parallelograms.</p> <p>► The student will prove certain quadrilaterals are parallelograms.</p> <p>► The student will prove the characteristics of kites and trapezoids.</p> <p>► The student will analyze diagrams to find missing angles and lengths by applying the characteristics of special quadrilaterals.</p> <p>► The student will place quadrilaterals on the coordinate plane and assign general coordinates to the vertices.</p> <p>► The student will prove the midsegment theorem of a trapezoid.</p>	<p>► Graded assignments</p> <p>► Classroom observation and/or participation</p> <p>► Quiz</p> <p>► Test</p>
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and inequalities and the geometry of relations in the coordinate plane. 2.9.11 Geometry G. Solve problems using analytic geometry.		► The student will use coordinates to find slopes and lengths to verify characteristics and prove special quadrilaterals.			
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