

## UNIT OF STUDY

<b>Title:</b> Basics of Geometry – Unit 1 <b>Length:</b> 8 days		<b>Subject/Course:</b> Geometry	
<b>Topic:</b>		<b>Grade:</b> 10	<b>Designer:</b> Boyd
<b>UNIT GOALS AND EXPECTATIONS</b>			
<b>IMPORTANT CONCEPTS/UNDERSTANDINGS:</b> <ul style="list-style-type: none"> <li>Find and Describe Geometric or numeric Patterns</li> <li>Measuring segments and angles</li> <li>Dividing segments and angles into two equal parts</li> <li>Identifying relationships among special pairs of angles</li> </ul>		<b>ESSENTIAL QUESTIONS:</b> <ul style="list-style-type: none"> <li>What is a pattern?</li> <li>How do you measure angles and segments?</li> <li>What are the relationships among special pairs of angles?</li> </ul>	
<b>STUDENT LEARNING EXPECTATIONS:</b> LG.1.G.3 – describe relationships derived from geometric figures or figural patterns LG.1.G.2 – represent points, lines, and planes pictorially with proper identification... CGT.5.G.1 – distance formula CGT.5.G.1 Use coordinate Geometry to find the midpoint of a segment LG.1.G.4 Apply, with and without appropriate definitions, theorems, properties and postulates related to such topics as complementary, supplementary, vertical angles, linear pairs, and angles formed by perpendicular lines M.3.G.2 Apply, using appropriate formulas (area, perimeter, surface area, volume)			
<b>SPECIFIC DECLARATIVE KNOWLEDGE – What I know</b> Vocabulary- Midpoint ,vertical angles, linear pairs, complementary and supplementary angles, perimeter, and area figural patterns, sequences, conjecture, counterexample, point, line, plane, collinear points, coplanar points, undefined and defined terms,		<b>SPECIFIC PROCEDURAL KNOWLEDGE – What I need to do</b> <ul style="list-style-type: none"> <li>Find and describe patterns</li> <li>Use inductive reasoning to make real-life conjectures.</li> <li>Sketch the intersection of lines and planes</li> <li>Use angle postulates</li> </ul>	

segments, rays, vertex, congruent angles	<ul style="list-style-type: none"> <li>Students will use the midpoint Formula</li> <li>Students will use area formulas for rectangles, triangles, and circles</li> </ul>
<b>UNIT ASSESSMENTS</b> <b>(Include tasks related to Dimensions 3 and 4 and Bloom's Taxonomy)</b>	
<ul style="list-style-type: none"> <li>Geometry Hot Questions Unit 1 Question 1 finding patterns by sequences and inductive reasoning(apply/analysis)</li> <li>Geometry Hot Questions Unit 1 Question 2 using the distance formula (apply)</li> </ul>	
<b>Traditional Assessments:</b> <ul style="list-style-type: none"> <li>TLI Module One Assessment</li> <li>TLI Module One Open Response</li> <li>Unit 1 Assessment</li> <li>Vocabulary Quiz</li> <li>Unit 1 Quizzes</li> </ul>	<b>Other Evidence of Learning:</b> <ul style="list-style-type: none"> <li>Homework</li> <li>Class work</li> </ul>

ACTIVITIES AND LEARNING EXPERIENCES	Resources
<ul style="list-style-type: none"> <li>Use real world examples to introduce inductive and deductive reasoning</li> <li>Introduce undefined terms such as points, lines, and planes by using visual examples in the classroom</li> <li>Modeling Intersections Activity</li> <li>Use rulers to measure segments (in different units) that students can find in the classroom</li> <li>Use the tiles on the floor as a coordinate grid to find the distance from one point on the floor to another point</li> <li>Have students draw angles and then other students will measure their angles using protractors</li> <li>Folding Bisectors Activity</li> <li>Model angle pairs using a variety of sets of lines</li> <li>Group students to find perimeters and areas of different geometric</li> </ul>	<ul style="list-style-type: none"> <li>Textbook pg. 12</li> <li>Textbook pg. 33</li> </ul>

shapes using sections of the room. Then relate the tiles to area and square feet.	
<b>Career Connections</b>	
Lab technician, construction, kite designer, baseball, architect	