

Teacher	Mrs. Chasity Shipley	Subject	Geometry 2D	Timeline (Dates)	2-3 weeks of instruction (2 nd -4 th weeks of March 2015)
Demonstrators/ Exit Standards (Core Content)	<p>CCSS.Math.Content.7.G.A.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p> <ul style="list-style-type: none"> CCSS.Math.Content.7.G.A.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle. CCSS.Math.Content.7.G.B.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure. 				
Essential Question(s)	What is the difference between 2D and 3D figures? How can I measure and create 2D figures to solve real world problems?				
Guiding Questions: (Objectives, Learning Targets)	<ol style="list-style-type: none"> I can classify angles as acute, right, obtuse, or straight. I can measure and create angles using a protractor. I can determine unknown angle measures by writing and solving simple equations. This is based on knowledge of supplementary, complementary, vertical, adjacent, and corresponding angles. I can classify and draw (with appropriate tools such as rulers, protractors, technology, etc) <i>polygons</i> using given conditions. I can construct triangles from given angle or side measures and determine if it is a unique triangle, more than one triangle, or no triangle at all. I can use correct notation to name geometric elements and make statements of similarity and congruency. I can solve proportional problems that involve scale drawings of geometric figures by computing actual lengths and areas from a scale drawing. I can construct a scale drawing that is <u>proportional</u> to a given geometric figure using an appropriate scale. 	Unit Vocabulary	<p>Angle Point Ray Line segment Supplementary Complementary Adjacent Vertical Corresponding Similar Congruent Protractor Degree Straight angle Right angle Obtuse angle Acute angle Scalene Equilateral Isosceles Scale factor</p>		

What products will students create to show they understand? (Formative & Summative Assessments)				Please attach Open Response and Rubric.		
Manipulative Problem-Solving		Quizzes	Pre-Post Assessments	Daily Skills Checks -Warm-ups	Open Response	
Hook :						
Use a geometric brainteaser. "How man many triangles are in the picture?" Students use embedded triangles to find the total.						
Thoughtful Education Strategies (Minimum of three per week) (Fifteen different strategies per semester)						
Mastery		Interpersonal	Understanding	Self – Expressive	Utility (Can be used in multiple styles)	
Fact or Fiction Spider/Fist List Word Association Word Wall Reading for Meaning Interactive Lecture Group & Labeling	Categories Memory Box Write to learn Building writing	Reciprocal Learning Think/Pair/Share Give one, Get one Collaborative Summarizing Jeopardy	Anticipation Guides KWL Concept Attainment Compare/Contrast 1,2,3,4 Yes, No, Why	Etch-a-Sketch Mystery	Graduated Difficulty Comprehension Menu Task Rotation Voc Notebook Carousel Brainstorming Boggle Reader’s Theatre Vocabulary Code Jigsaw 4-2-1 Free Write Kindling TGT	
Student Activities Below						
Day 1: Geometry Vocab and symbols - Go to the lab with student handout (vocabulary notebook) and allow students to use the interactive dictionary to discover the terms. -Students will receive additional resources (packet) with the vocab notebook. Students are made aware that there will be a vocab and symbols test at the end of the chapter. www.amathsdictionaryforkids.com/dictionary.html	Day 2 Classifying and Constructing Angles (1-2 days) - warm-up - students take notes on types of angles and use the flipchart for examples. - Using the online model, the teacher models how to effectively measure angles. http://www.teacherled.com/resources/anglemeasure/anglemeasureload.html - Students measure angles from the Bridge to Algebra practice sheet. On the back of the sheet (blank paper), students are asked to CONSTRUCT various angle degrees. The teacher models how to construct angles. Students switch papers and measure their classmate’s angle constructions for accuracy.	Day 3: Notations - model notating of the following: lines, angles, rays, segments, perpendicular lines, parallel lines, congruent triangles, similar triangles, measurement of angles, etc. - Students complete a Bridge to Algebra worksheet. <i>*If time is limited, this could be easily embedded into warm-ups and other lessons.</i>	Day 4: Angle Relationships (2-3 days) - Model corresponding, supplementary, complementary, vertical, and adjacent angles. Students must use EQUATIONS to find missing values. - Use IXL for practice in computer lab	Day 5: Polygons(classifying and angles) (1-2 days) - Think/Pair/Share- students list the correct names for 3-10 sided polygons. A big misconception is that a four sided figure is called a square. Discuss regular vs irregular figures - Vocab: vertex,vertices, edges, interior angle, polygon, regular polygon		

<p>Geometry Vocabulary Notebook Name: _____</p> <table border="1"> <thead> <tr> <th>Term</th> <th>Definition</th> <th>Picture / Icon</th> </tr> </thead> <tbody> <tr> <td>Ray</td> <td></td> <td></td> </tr> <tr> <td>Line segment</td> <td></td> <td></td> </tr> <tr> <td>Point</td> <td></td> <td></td> </tr> <tr> <td>Angle</td> <td></td> <td></td> </tr> <tr> <td>Vertex</td> <td></td> <td></td> </tr> <tr> <td>Denote</td> <td></td> <td></td> </tr> </tbody> </table> <p>No homework</p>	Term	Definition	Picture / Icon	Ray			Line segment			Point			Angle			Vertex			Denote			8-2 textbook		8-3 textbook	textbook 8-5
Term	Definition	Picture / Icon																							
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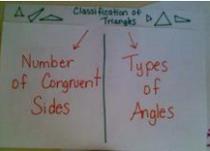
CORE STANDARDS for above lessons

<p>CCSS.Math.Content.7.G.A.1 CCSS.Math.Content.7.G.A.2 CCSS.Math.Content.7.G.B.5</p>	<p>CCSS.Math.Content.7.G.A.2</p>	<p>CCSS.Math.Content.7.G.A.2 CCSS.Math.Content.7.G.B.5</p>	<p>CCSS.Math.Content.7.G.B.5</p>	<p>CCSS.Math.Content.7.G.A.2</p>
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Student Activities

Day 6 Triangles(Classifying and Finding missing degrees) (1-2 days)

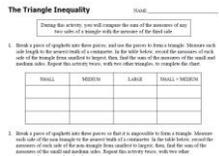
- Using a **foldable(located in P drive)**, students will classify triangles by sides and angles. Students will brainstorm impossible triangle types. Also include 180 degrees within a triangle. Model how to find missing angles using equations and angles such as $3x$, $2x$, $5x$ to find the missing angles.



- homework: practice classification and missing measures

Day 7: Triangle Inequality/Spaghetti Lab

- Students will know if three side lengths forms a triangle. Students will “discover” the pattern. Students will work in groups of 2. At the end, explain that there are no “bullies” allowed in triangle side lengths. The two smaller sides must be capable of overtaking the big one.

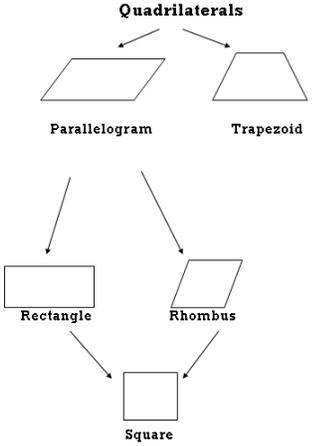


Materials: Student handout and a 3-4 uncooked spaghetti noodles per student.

Worksheet on P-drive for practice

Day 8: Classifying Quadrilaterals

Use the quadrilateral family tree on the Pdrive to explain the characteristics. Don’t forget to include Kite. Use kutasoftware to practice.



Textbook 8-7

Day 9: Constructions (2 days)

Materials: protractor, compass, pencil, and construction worksheet

Hook: Present students with a problem. “*On a piece of notebook paper, construct a triangle measuring 4 inches, 5 inches, and 7 inches.*” Students will realize the difficulty without knowing the angle degrees. Transition into using a compass....

The teacher models how to construct the first figure. Students use appropriate tools to make the first construction following the teacher’s demonstration. Repeat this for all constructions.

Day 2: Teacher facilitates while students complete constructions without the teacher demonstrations. “Constructions 2” can be found on the pdrive. Peer revision:

Day 10: Similar Figures (QZ Enrichment)

-warm-up: discuss congruent figures and how to notate.

- Using the textbook’s powerpoint on this lesson, model how to notate similar figures and to use proportions to find missing side lengths.

- workbook practice problems

textbook: 5-7 and 5-8

			Students switch papers and offer feedback before turning constructions in. Most students will fail to label vertices, sides, and angles.	
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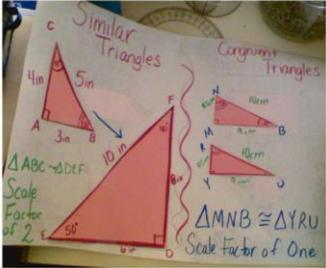
-textbook 8-6

CORE STANDARDS for above lessons

CCSS.Math.Content.7.G.A.2 CCSS.Math.Content.7.G.A.2	CCSS.Math.Content.7.G.A.2 CCSS.Math.Content.7.G.A.2	CCSS.Math.Content.7.G.A.2 2	CCSS.Math.Content.7.G.A.2 CCSS.Math.Content.7.G.A.1	CCSS.Math.Content.7.G.A.1
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Student Activities

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<p>Day 11: Similar and Congruent Lab (QZ enrichment)</p> <p>This could be expanded or shortened for time. Students must create their own similar and congruent figures. The flipchart and samples are on the P drive under “similar figure lab” notebook file.</p>  <p>*Materials are listed on the flipchart.</p>	<p>Day 12: Scale Drawings</p> <p>Demonstrate scale drawings by using the online powerpoint with the shapes already created.</p> <p>*Give students a scale and have them recreate a blueprint on grid paper. Expose students to maps as well.</p> <p>Textbook 8-7</p>	<p>REVIEW</p> <p>Who Wants to Be A Millionaire?</p> <p>Study Guide</p>	<p>Test</p> <p>Open Response</p> <p>Notation and Vocabulary Test</p>	
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CORE STANDARDS for above lessons

CCSS.Math.Content.7.G.A.1	CCSS.Math.Content.7.G.A.1		
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