

DIXIE STATE COLLEGE – DEPARTMENT OF EDUCATION

LESSON PLAN - SECONDARY

Teacher Candidate Brianna Larmore Grade Level 8 Subject/Content: Math Unit 6

Title 6.0 – Naming Angles, Complementary and Supplementary Angles

<p>CONTEXTUAL FACTORS (e.g. ethnicity, gender, exceptionalities, ELL, GATE, etc.) which need differentiation in instruction and assessment.</p> <ul style="list-style-type: none"> • 6 Hispanic students (2 have language difficulties) • 3 Honors – Bound students (2 others have ability but lack confidence) • 5 students with IEPs (learning disabilities)

<p>WALK-AWAY (what do I want students to know, understand, and be able to do?)</p>	
<p><u>Content Walk-Away:</u></p> <ul style="list-style-type: none"> • Identify angles by both name and type. • Compare and contrast acute and obtuse angles. • Calculate measures of angles algebraically. • Exemplify real-life scenes and objects contain both obtuse and acute triangles. <p><u>Reading/Language Walk-Away:</u></p> <ul style="list-style-type: none"> • Explain meanings of line, segment, ray, angle, and vertex. • Define complementary and supplementary angles 	

<p>ASSESSMENT EVIDENCE (formative/summative checks for learning) (Match the Content Walk-Away)</p>	<p>Modifications/Accommodations (ELL, IEP, GATE, etc.)</p>
<p>Participation:</p> <ul style="list-style-type: none"> • Call on students semi-randomly to provide assistance and answer open-ended questions • Match vocabulary terms to specific pictorial references (have students come to the board and label objects themselves.) <p>In classwork:</p> <ul style="list-style-type: none"> • Students answer open-ended questions specific to what they and their partner are working on together. • Observations of students assisting peers while in small groups/pairs. <p>Homework:</p> <ul style="list-style-type: none"> • PLC created common assessment • 25 total problems: 15 vocabulary/terminology concepts, 10 solving for x with supplementary and complementary relations. 	<ul style="list-style-type: none"> • Allow ELL students to converse in native tongue while working in small groups/pairs. • Insist on deeper answers from honors-bound students. Have them answer the “but why...?” and “why would that matter?” questions. • Scaffold IEP and other struggling students when asking them to join in group/class discussion. It is ok to get an incorrect answer, but they need to be walked toward a correct one.

ACTIVE LEARNING PLAN	Modifications/ Accommodations (ELL, IEP, GATE, etc.)
<p><u>Activate Prior Knowledge/Experiences</u></p> <ul style="list-style-type: none"> We have been graphing lines on a coordinate plane in the last chapter. See if students can define (prior to looking at the slide) line, segment, ray, angle and vertex. <p><u>Focus Lesson (“I do it”)</u></p> <ul style="list-style-type: none"> Draw an example for each of the above terms. Remind student how to name the terms (with the exemption of angle, we will do that shortly.) Explore examples of acute and obtuse (terms are a review from 6th grade). Have students give a few example of each pf their own. Show students the steps to naming an angle. (3 letter if more than one angle can be formed from the vertex, vertex must be in middle of the set) Ask students to explain why this is. Why won’t $\sphericalangle B$ serve as an answer? When would it work? (It will only work if there were only a single angle created with the vertex of B, in the example there are 3.) Angles can also be labeled by numbers or lowercase letters, if the letter/number is ‘hugged’ by the angle. (also, $\sphericalangle 1 + \sphericalangle 2 \neq \sphericalangle 3$) Supplementary angles = S – “straight” angles = 180° Complementary angles = C – “corner” angles = 90° <p><u>Guided Instruction (“We do it”)</u></p> <ul style="list-style-type: none"> Have students solve a supplementary angle from slide 6 where the angles measure $4x+5$ and 45, respectively. Have students solve a complementary angle from slide 7 where the angles measure $3x$ and x, respectively. Have students name off the angles from slide 8 (there are over 10) and list them on the board. What is the complement of $\sphericalangle GFH$? (There are 2 answers, $\sphericalangle FHA$ and $\sphericalangle DHS$. The students will probably only recognize the first at this time.) What is the supplement to $\sphericalangle AHS$? ($\sphericalangle AHG$) To $\sphericalangle FHA$? ($\sphericalangle AHD$) <p><u>Collaborative/Cooperative (“You do it together”)</u></p> <ul style="list-style-type: none"> Answer problems 1-4 in pairs, check as a class. (‘Random’ student writes on the answer on the board while their partner explains their reasoning to the class.) Answer problem 16-19 in the same fashion. <p><u>Independent (“You do it alone”)</u></p> <ul style="list-style-type: none"> The rest of the worksheet is to be finished alone at home. <p><u>Summarization/Closure</u></p> <ul style="list-style-type: none"> Supplementary angles are straight. Complementary angles are corners. Naming angles requires 3 letters, or a ‘hugged’ number. 	<ul style="list-style-type: none"> Include IEP learners at times when it is easiest, such as after another student gives an example but before all the “easy” answers are taken. Ask honors-bound students for alternatives to the obvious. Have them voice their opinion, observations, and answers in the form of a question that others can answer. Break vocabulary into smaller/simpler terms for ELL. Use picture representations.

NOTES TO TEACHER
<p><i>What do I need to remember to do?</i></p> <ul style="list-style-type: none"> Call of every student. Sometimes when they are paying attention, sometimes when they are not. (But help them through the answer whether they were or not.) Give students time to discuss the relationships between the angles.

Materials to have ready?

- Smart Board / PowerPoint Presentation
- WS 6.0
- Dry Erase markers (minimum of 4)

Approximate time needed for lesson?

- 60 minutes (Last few minutes of class to be used to hand back last units exam.)