

DIXIE STATE COLLEGE – DEPARTMENT OF EDUCATION

LESSON PLAN - SECONDARY

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

Title 6.4 – Interior and Exterior Angles of Triangles

<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"> • Connect exterior angles to previous knowledge about supplementary angles. • Examine, algebraically, the measures of unknown angles of triangles <p><u>Reading/Language Walk-Away:</u></p> <ul style="list-style-type: none"> • Refresher: interior (inside, contained) & exterior (outside) 	

ASSESSMENT EVIDENCE (formative/summative checks for learning) (Match the Content Walk-Away)	Modifications/Accommodations (ELL, IEP, GATE, etc.)
<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.) • Involve all students. <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 • 24 total problems: mix of interior and exterior angles found algebraically 	<ul style="list-style-type: none"> • Allow ELL students to converse in native tongue while working in small groups/pairs. Refer to previous out-of-classroom knowledge. • Insist on deeper answers from honors-bound students. Have them answer the “but why...?” and “why would that matter?” questions. • Scaffold students with an IEP, but don’t let them off the hook. Verbally walk them through their own thinking. Take time to make sure that you talk to each during small group time.

ACTIVE LEARNING PLAN	Modifications/ Accommodations (ELL, IEP, GATE, etc.)
<p><u>Activate Prior Knowledge/Experiences</u></p> <ul style="list-style-type: none"> Last class we cut a triangle in to its interior angle components and no matter what type of triangle is was, the interior angles always added to equal 180°. Today we are going to examine the angles created when we extend the sides of a triangle just a bit further. <p><u>Focus Lesson ("I do it")</u></p> <ul style="list-style-type: none"> Describe how exterior angles are created by extending any side of the triangle. (See slide 2) What can we deduce from this picture? By now, the students should be able to recognize that we are dealing with supplementary angles that add to equal 180°. Exterior angles form a linear pair with the interior angle. Pairs of exterior angles create vertical angles. <p><u>Guided Instruction ("We do it")</u></p> <ul style="list-style-type: none"> Write the interior angle theorem and the exterior angle theorem on the board next to each other <ul style="list-style-type: none"> $\angle A + \angle B + \angle C = 180^\circ$ $\angle 1 + \angle A = 180^\circ$ They should be able, perhaps with a little hint, to walk through to find out the following information and relations. <ul style="list-style-type: none"> $\angle A + \angle B + \angle C = \angle 1 + \angle A$ Thus $\angle B + \angle C = \angle 1$ Show slide 3 <p><u>Collaborative/Cooperative ("You do it together")</u></p> <ul style="list-style-type: none"> Have students work problems that are multiples of 3 with their partner. <p><u>Independent ("You do it alone")</u></p> <ul style="list-style-type: none"> Finish the rest of the work at home. <p><u>Summarization/Closure</u></p> <ul style="list-style-type: none"> Sum of interior angles of ANY triangle is 180° Exterior angles are linear pairs and therefore supplementary. Exterior angles equal the sum of the opposite two interior angles. 	<ul style="list-style-type: none"> Include IEP learners after a peers' example has been given. Use color-coding and visual representations. Separate honors-bound students and have them collaborate with middle range peers. The peer tutoring will cement their knowledge of the content. For ELL, speak slowly. Refer new vocabulary to information and terms they are already familiar with. Ask them for personal examples. Ie. Chopticks

NOTES TO TEACHER
<p><i>What do I need to remember to do?</i></p> <ul style="list-style-type: none"> Allow students a moment or two to think through the relationship between interior and exterior angles. Don't let students off the hook. Be patient. <p><i>Materials to have ready?</i></p> <ul style="list-style-type: none"> Smart Board / PowerPoint Presentation and projector WS 6.4 Dry Erase markers <p><i>Approximate time needed for lesson?</i></p> <ul style="list-style-type: none"> 70 minutes