## Geometry

Week of October 30- Nov 3, 2023

General Class Periods 4&5

#### Week Overview

**Monday:** Practice day with finding triangles missing angles and classifying

<u>Tuesday:</u> Notes on Isosceles triangles legs and base angles relationship so link to section 6.5 objective

**Wednesday:** Practice work

**Thursday:** Concept development Activity on "Triangle(s) or NOT"

**Friday:** Student Created Poster classifying triangles from clues.

Monday - Teacher inservice with parent teacher conferences so no student school

### 2 sections from chapter 5 on TRIANGLEs

Lesson Objective(s): Students will classify triangles by sides and angles.
Students will find interior and exterior angle measures of triangles.

Previous Learning: Students should be familiar with both theorems presented in this lesson.
There are many explorations students may have done in middle school to discover that the sum of interior angles of a triangle is 180° and that the measure of an exterior angle of a triangle is equal to the sum of the two nonadjacent interior angles.

New Vocabulary: interior angles, exterior angles, corollary to a theorem

Lesson Objective(s): Students will use the Base Angles Theorem.
Students will use isosceles and equilateral triangles.
Previous Learning: Students previously learned about isosceles and equilateral triangles.
New Vocabulary: legs, vertex angle, base, base angles
Materials for Teacher: none
Materials for Students: graph paper, dynamic geometry software

CC State
Standards
HSG-CO.C.10
HSG-CO.D.13
HSG-CO.D.13

### Section: Chapter 6.5

6.5 Geometry Lesson 6.5 - Day 1: Indirect Proof and Inequalities in One Triangle Essential Question: How are the sides related to the angles of a triangle? ..... Lesson Objective(s): CC State Students will list sides and angles of a triangle in order by size. Standards Students will use the Triangle Inequality Theorem to find possible side lengths of triangles. HSG-CO.C.10

### Monday: Practice Day off 5.1 objectives

• Kuta Page 1 with extended directions to also identify as acute, right, obtuse, or equiangular on # 1-4. Finish finding angles and filling in angle measures that lead to final answer on #5-16.

 Worksheet pg. 14 labeled "Practice 2-1 Example Exercises" Complete also in small groups

# TUESDAY Chapter 6.5 --- Angle to Opposite side of triangle relationship

- Warmup w/ START thinking, WARMUP, & REVIEW pg. 214 Resource section
   6.5
- Notes on the relationship of angle and opposite sides of triangle from smallest to largest. Sketch or draw to scale a few examples to demonstrate concept.
- Student journal pg. 187-188 for notes and examples
- Complete Practice A Section 6.5 #1-6

### Wednesday

Review 6.5 worksheet

Practice with Kahoot:

https://kahoot.it/challenge/04002359?challenge-id=6a35df94-15d6-42bb-9a0b-074 04aeef3ff\_1699270384525

Then complete Pumpkin Patch Worksheet - keep in room, no computers permitted, may work with two consistent other students.

### Thursday

Warmup - finish pumpkin patch worksheet

Start work on Classifying Triangles Project from

https://www.map.mathshell.org/lessons.php?unit=7330&collection=8

Do the introduction sheet. Have students draw to a scale each item to show proof it works as one, many, or does not work to make a triangle(s).

### Friday

Assign groups based on Thursday worksheet and drawings.

Continue work on sorting the triangle(s) or not a triangle cards.

Draw or explain for each conclusion.

### Chapter 9.1 --- Pythagorean Theorem use on RIGHT triangles

- Relate back to the relationship of angle and opposite sides of triangle from smallest to largest. So 90 right angle's opposite side is hypotenuse.
  - The neat thing with Py. Thm is the formula works to be "=" on right triangle.
  - Then if less than, the triangle is acute.
  - Then if greater than, the triangle is obtuse.

- Student journal pg. 244-246 for notes and examples
- Complete Practice A Section 9.1 #1-6

THIS IS Nov. 14th work