

TEACHER PAGE

Lesson: Basic Right Triangles Teacher-Author: Nellie Jo Hendricks ASSET Animator: Harue Yoshida



Arizona Math Strand 4 Geometry and Measurement

Grades 2, 4

4M21-01 Compare attributes of two-dimensional shapes (square, rectangle, triangle and circle). **4M41-01** Identify the properties of two-dimensional figures using appropriate terminology.

Old Arizona Math Standard 4

Grades 1-3

4MF1-PO4 Compare attributes of two-dimensional shapes.

Materials:

Students should have manipulatives, individual slates or white boards with appropriate writing tools, wall chart of place triangles on for demonstration.

Learning Objectives: The student will be able to:

- identify triangles as a two-dimensional shape
- compare the attributes of sides and angles of two-dimensional shapes; describe a triangle and a right triangle
- select the correct term for the triangles shown

Overview and Content:

This lesson enables student to identify and compare triangles, also to determine shapes using the attributes of size, shape, and number of sides, vertices (corners) and faces. This lesson focuses on right triangles. Students learn that triangles are two-dimensional shapes. They are made of three sides that meet at points or corners called angles. All two-dimensional geometric shapes with three sides and three angles are called triangles. The idea of right triangles is introduced in this short lesson as well as the terms obtuse and acute angles.

Engage students:

Direct students to stand and place arms and shoulders in triangular shapes. Note the different triangles the students make. Ask several students to stand in groups of three and form as many triangular shapes as possible together. Lead them to see these shapes are the same geometric shapes just larger in size and the angles have differing vertices (corners). Challenge students to change their points or angles to introduce new types of triangles.

Follow-up, extensions and challenges:

1. Direct students to draw several triangles and look for more triangles to fit within their triangle drawings.
2. Depending on the experiences of the students, a teacher may help students discover that some triangles (an isosceles triangle) may be divided into two right triangles. Does a divided obtuse triangle contain a right triangle? How about an acute triangle?
3. Help students start simple research in books, pictures or on the Internet to identify and name the different triangles mentioned in this lesson. Ask them to write sentences about different types of triangles and draw them.



Assessment:

Students will select correct term describing the given triangle.