



**TEACHER PAGE**  
**Lesson: Polygons Defined**  
**Teacher-Author: Pam Roeller**  
**ASSET Animator: Sarayus (Tao) Somviwatanachai**

**New Arizona Math Strand 4 Geometry and Measurement      Grade 4**  
**Articulated 4M41-01** Identify the properties of two-dimensional figures using appropriate terminology.

**Old Arizona Math Standard 4 Geometry, Essentials 1      Grades 4-8**  
**4ME1-PO1A** Classify two-dimensional shapes and three-dimensional figures by their properties A. by sight **PO3** Draw or build two-dimensional shapes by applying significant properties of each (e.g., draw a rectangle with two sets of parallel sides and four right angles)

**Learning Objectives:** the student will be able to:

- define and explain the meaning of terms surrounding polygons, such as vertex, vertices, “poly,” “gon,” and other Greek terms used to identify polygons.
- demonstrate understanding of the connection between polygons and their number of sides by drawing them
- demonstrate understanding of the connection between polygons and their number of sides by labeling them correctly.

**Overview:**

In this second lesson on polygons, students will learn about the connection with the Greek language and the terms identifying the shape of regular polygons. This lesson builds on the Polygon Family and reviews naming polygons as in the TRY. At that point the learning extends the concept of polygons and their attributes to true/false and interesting games with Mrs. Glosser in DIG DEEPER. The first web site is slow coming up.

**Engaging Students:**

Students review identification of polygons by sight and researching polygon shapes, then they make a self-tabulation of the results. A thinkabout question could be used to reopen the topic of polygons, such as; do we know all there is to know about polygons?

**Follow-up:**

The TALK ABOUT IT! Section of the lesson is a good model for a creative activity just made for visual and story maker students. For example, replace Triangle Town with Octagon Town and draw or build a village of Hogans and write a story about it. If making buildings is involved, three-dimensional figures will emerge with the other concept of this performance objective to be defined. Great possibilities exist here. Students could research the use of octagon shaped houses unique to the Navajo Nation. How about a Quadrilateral Quarter? Vertex Village?

**Assessment:**

Students draw polygons and answer true/false question surrounding the terms used with polygons.

