



## TEACHER PAGE

**Lesson: Meet the Polygon Family**  
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**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

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

- identify and name triangle, quadrilateral, pentagon, hexagon, octagon, decagon
- demonstrate understanding of regular polygons by correctly matching names to shapes.
- demonstrate understanding of the attributes of regular polygons by correctly identify the number of sides of each presented.

**Overview:**

Students will be introduced to the polygon family by way of identifying shapes and number of sides. This lesson is the first of three lessons on polygons. The author suggests following the Polygon Family with Polygons Defined, then Regular Polygons and Figure It Out! Polygons.

**Engaging Students:**

Students or student groups brainstorm naming an object and identifying its shape. The method to this identification process is the mystery. Tabulate the results, perhaps in a KWL chart.

**Follow-up:**

Teachers: look at the web site listed in the TALK ABOUT IT Section to find many options for extending this lesson. A high level of vocabulary words, such as vertex, exterior angle, interior angle, diagonal and side as line segment are defined. Given also is a game for creating polygon names out of the mathematical terms for number of sides. Students need to be able to give an alternative name for the quadrilateral.

**Assessment:**

Students identify polygon names by their number of sides.

**Teacher Note:**

This lesson is also appropriate for Performance Objectives 4M51-01 and 4M61-01.

