



TEACHER PAGE

Lesson: Figure It Out - Polygons

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New Arizona Math Strand 4 Geometry and Measurement

Grade 6

Articulated 4M61-01 Classify polygons by their attributes (e.g., number of sides, length of sides, angles, parallelism, and perpendicularity).

Old Arizona Math Standard 4 Geometry Essentials 1

Grades 4-8 (6)

4ME1-PO1B Classify two-dimensional shapes and three-dimensional figures by their properties, B. by properties. .

Learning Objectives: the student will be able to:

- identify and explain properties of polygons
- identify and classify trapezoids, parallelograms, rhombuses, pentagons, rectangles and quadrilaterals by properties
- explain the properties of shapes with five or more sides
- distinguish between quadrilateral, parallelogram, rhombus and rectangle.

Overview:

This lesson starts with a basic explanation of the terms “poly” and “gon.” A review of prefixes and suffixes help expand on the Greek connection with polygons and math. Defining properties comes next going on to explanations of “quadrilateral” and distinguishing its different types. Students will have to know the properties of polygons and be able to differentiate among them and to draw some of them.

Engaging Students:

Games of “prefix and suffix” followed by “draw the shapes to match” could be an intriguing springboard to this lesson and a method for determining knowledge level.

Follow-up:

The following web sites are a good place for activities and research on the topic of regular polygons.

<http://www.mathleague.com/help/geometry/polygons.htm#polygon>

Have patience with the websites, particularly in the lesson. Allow students to search for Greek buildings, ancient or otherwise, that show shapes of polygons. The web sites first used in this lesson became unavailable after time. If this happens, please use a search tool to find related topics and interesting examples of the concept of this lesson. For more interesting work with rugs the web site given in SO WHAT should be expanded to: rugs/carpets; rugs/students; rugs/resources.

Assessment:

The students must be able to identify, classify and distinguish shapes among the properties of polygons to draw three of them.

Teachers:

This lesson is related to Polygon Families, Polygon Defined and Regular Polygons. For many math activities for middle school students, visit:
<http://mathforum.org/students/middle>

