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| Edited by: | Robyn Fohlmeister | Date: | April 28, 2010 |

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| Unit Name: Where Has “Poly Gon” in the Neighborhood? | | Unit Length: 1 week | |
| **Overview:** A polygon is a plane shape with straight sides. Polygons are two-dimensional shapeswhose edges are all line segments. A regular polygon is one that has equal sides. The most familiar polygons are the triangle, the rectangle, and the square. | | | |
| ***DESIRED RESULTS*** | | | |
| **Pre-Kindergarten Guidelines - Matrices**  **# 306** - Begins to recognize, describe, and name shapes.  **# 312** – Begins to use words that indicate where things are in space.  **# 305** – Describes similarities and differences between objects.  **# 407** - Begins to make size comparisons between objects.  **# 411** – Covers an area with shapes.  **# 313** – Begins to recognize when a shape's position or orientation has changed.  **NCTM Geometry Standards and Focal Points**   1. recognize, name, build, draw, compare, and sort two-and three- dimensional shapes 2. describe attributes and parts of two- and three- dimensional shapes 3. investigate and predict the results of putting together and taking apart two- and three- dimensional shapes | **Critical Vocabulary**  sides  lines  four  corners  straight  angle  long  short  equal | | |
| **Enduring Understandings (Big Ideas)**  The environment we live in is a useful tool to help us learn about geometry by finding polygons all around us. | **Essential Questions**  How can we recognize and identify polygons in our environment to learn about geometric patterns that exist all around us?  How can polygons be used to create patterns in our environment? | | |
| **Learning Goals and Objectives**  Students will understand how polygons relate to and are a part of our surroundings. | **Materials Needed**  Our classroom, various types of toys, pictures with rectangles, painter's tape, book, “My Very First Book of Shapes,” a sense of creativity, and an open mind. | | |
| ***ASSESSMENT PLAN*** | | | |
| **Performance Tasks:**  Formative Assessment:  What shape has 4 sides?  What shape has 4 corners?  Is a rectangle the same shape as a triangle?  Draw something that looks like a rectangle. | **Other Evidence** | | |
| ***LEARNING PLAN*** | | | |
| **Engage:** Ask students to name things that look like rectangles; teacher writes down responses.  **Explore:** Allow students to work in small cooperative learning groups with geometric shapes – using the following polygons: squares, rectangles, and triangles. Students manipulate shapes to create patterns, pictures, models, etc., exchanging ideas with others and working with their peers. Students will have conversations while naming and recognizing rectangles.  **Explain:** Discuss the rectangle shape and vocabulary words related to rectangles, making sure to use vocabulary words - students repeat vocabulary words, students copy vocabulary words in math journals. Define and identify the parts of a rectangle by creating different 3 different sizes of rectangles – small, medium, and large.  **Elaborate:** Show students examples of different variations about how they can create and find rectangles using various objects/items .    **Evaluate:**  Students will complete an art activity to create a rectangle collage, by cutting out pictures of items/objects that are shaped like rectangles.  In addition, students will draw, create, and sort rectangles in a shape book. They will add onto the book as they progress through the rest of the polygon unit, which will also focus on and include triangles and squares.  ***Extension:***  ***Modifications:*** | | | **Time**  5 mins.  10 mins.    10 mins.    5 mins.  15mins. |
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