**Math – polygon patterns 3**

**Lesson Plan Structure**

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| Date: Nov 27, 2012 | Teacher: DS |
| Subject: math | Unit:polygons & patterns |
| Outcome(s): [Patterns] Increasing/decreasing using manipulatives. | Grade:3 |
| Materials: toothpicks, geoboards |
| Objective: help them recognize and identify polygons and patterns better, and how to write a pattern rule. |
| Background Information: they have seen patterns with numbers and with polygons… time for more examples and manipulation |

Introduction

Introduce patterns again. Hangman

Activities/Sponge

Talk about pattern rules

Pattern rule: “**Starts at \_\_\_ and increases/decreases by \_\_\_.**”

Number of sides or corners – triangle, square, pentagon, \_\_\_\_\_\_\_\_\_\_\_\_

Distribute toothpicks – no set number, just a small handful of ~15-20. Allow them to build polygons, and create some patterns, transcribing their patterns to the graph paper.

Challenge: build “trimono” and “petomino” patterns.

Workbooks. Page 214

Sponge:
Create 10 different polygon patterns (with pencil if they prefer). Write the pattern rule with words or with math.

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| *Evaluation* – They will be able to finish their workbooks |
| *Follow Up/Closure* – tangrams/transformations |
| *Art of Teaching* – review, patience, pacing |
| *Modifications -*  Let them use some geoboards to explore polygons, finish worksheets they started. |