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Elementary Math Methods

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Pattern Lesson Plan

Standards:

4.3.3.1-Apply translations to figures

4.3.3.2-Apply reflections (flips) to figures by reflecting over vertical or horizontal lines and relate reflections to lines of symmetry.

 4.3.3.3- Apply rotations (turns) of 90\* clockwise or counterclockwise.

4.3.3.4- Recognize that translations, reflections and rotations preserve congruency and use them to show that two figures are congruent.

Objectives:

 Students will be able to recognize and explain the properties of tessellations

 Students will be able to identify and examine symmetry in geometric figures

 Students will be able to explain different types of symmetry

Materials:

 Paper

 Markers, Colored Pencils etc…

 Tile Blocks

 Whiteboard/SMART Board

Procedure:

 To start the class we will review the different types of symmetry that we have been learning about. As a class we will generate a few examples of each kind of symmetry and together we will explain why they work. I will then introduce a new kind of symmetry called zome symmetry-which is the type of symmetry that is found in tessellations. I will explain to the class what a tessellation is and what makes it work. I will ask the class to come up with some examples of tessellations that we see everyday. After we come up with these examples I will show them some pictures of tessellations and describe them. I will then ask students to come up with one regular tessellation (with squares, triangles, trapezoids etc…) and then to come up with their own irregular shape that will tessellate the plane. At the end of class students can share their work with the class. If they don’t finish their original tessellation then they can take it home and work on it as homework. To close we will review tessellations and their parts.