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Elementary Math Methods

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Geometry Lesson Plan

Standards: 5.3.1.1 - Describe and classify three-dimensional figures including cubes, prisms and pyramids by the number of edges, faces or vertices as well as the types of faces.

5.3.2.1 - Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles.

Objectives: Students will be able to describe different types of three-dimensional figures.

Students will be able to decompose these figures into triangles.

Students will be able to classify shapes based on their strength

Materials: Gum Drops/Spice Drops

Toothpicks

White Paper

SMART Board

Textbooks

Procedure: I will begin the class by telling a story about how I need to think of a cheap Christmas gift but the only things I have at home are gum drops and toothpicks. I will ask the students to build the most creative desk ornament they can think of that can hold my mom’s health textbooks that won’t break. I will give them 5 min to explore and create their creations (in a real classroom I would give them longer). We will then test them with the textbooks. I will ask each group to draw a side view of their structure in order to analyze later in the class. Whichever’s group can hold the most textbooks will win. We will then discuss why some structures failed and why some succeeded and how to improve the other structures. The hope is that students will realize that the triangle provides the most support and strength of all the figures and that we can make triangles in many of the polygons that students used.