

#270, Wilson, Dee Ann, Food for Thought: Hands-on and Edible Geometry Using Formulas

<https://goo.gl/GxdjqP>

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Expanding Horizons in Education, LLC



Overview of Geometry Hands-on Strategies

- **π from Pies**
7.G.2.4 and 912.G-GMD.1.1
Use oatmeal cookies or moon pies and string to derive the circumference and area of a circle.
- **Circle Folding**
7.G.1.2, 7.G.2.6, and 912.G-MG.1.1
Bridge students understanding from 2-D to 3-D geometry as students use geometric shapes, their measures, and their properties to explore a circle paper folding activity.
- **Pop Ups**
7.G.2.6, 8.G.1.1 (Similarity), 912.G-MG.1.1
Students can determine the volume of right rectangular prisms in order to prove similar shapes in a pop up activity.
- **Cake Comparisons**
7.G.2.6, 8.G.3.9, 912.G-MG.1.1, and 912.G-GMD.1.3
Find the volume and surface area of rectangular prism cakes, cylindrical cakes, hexagonal prism cakes, and pentagonal pyramid cakes. Students can bring in cakes they made or teacher can supply a variety of little cakes along with toothpicks and gum drops and flexible straws for students to use to make cake models.
- **Ice Cream Lab**
8.G.3.9, 912.G-MG.1.1, and 912.G-GMD.1.3
Which ice cream cartons and cones should be used in order to purchase the most economical ice cream treats for a class? Students love to have an ice cream party after they turn in their completed work.
- **Bubble Gum Lab**
8.G.3.9 and 912.G-GMD.1.3

Students do a comparison lab on how big of bubbles they can blow from different types of bubble gum. They will determine the best bubble gum by finding the volume and surface area of their bubbles.

π from Pies Recording Chart

Measurement Manager	Length of Diameter	Length of Circumference
Comparison Manager	Number of Diameter Strings Per Circumference	
Calculation Manager	Quotient of Circumference / by Diameter	
	Class Average of Quotients	

Bubble Recording Sheet

Bubble	Diameter	Radius	Surface Area	Volume
1				
2				
3				
4				
5				
Average	xxxxxxxxxxxxxxxx	xxxxxxxxxx		

Record Bubble #1 Ruler Inside Vertices

Calculation Sheet

Bubble #1 Surface Area

(Show all of your work)

Bubble #1 Volume