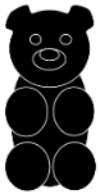


Gummy Bear Experiment

Gummy Bears do some interesting things when put into different liquids. In this experiment, we will find out what will happen when we put the Gummy Bears into water, salt water, vinegar, and baking soda water.

Part A:

1. Fill out the Scientific Method Chart.
2. Choose 4 gummy bears from the container. Use the equipment available to measure only one of your gummy bears and record the data in the chart for Day 1.

Measurements:

A. The length of your gummy bear should be measured from the top of its head to the bottom of its feet to the nearest Millimeter.
B. Measure the width at the widest point across the back of the bear to the nearest Millimeter.
C. Measure the thickness from the front to the back at the thickest point to the nearest Millimeter.
D. Calculate the volume by multiplying the length, width, and thickness (Depth) – Round to the nearest hundredth. (V = L x W x D)
E. Measure the mass using a triple-beam balance or other scale to the nearest tenth of a gram.
F. Calculate the density by dividing the mass by the volume – Round answer to the nearest hundredth. (D = M/V)

Part B:

1. In each of the four – 100 ml beakers:
   - Pour 50 ml of Water into one beaker
   - Pour 50 ml of Vinegar into one beaker.
   - Mix 50 ml of Water with 15 ml (1 tbsp.) of Baking Soda in one beaker.
   - Mix 50 ml of Water with 15 ml (1 tbsp.) of Salt in one beaker.
2. Drop a Gummy Bear into each of your prepared beakers and place the beaker onto the labelled sheet of paper under the correct heading. Let sit for one day.
3. **On Day 2**, remove the Gummy Bears from each mixture and use a paper towel to dry it off to prevent it from dripping all over the place.
4. Repeat the measurements from Part A for each Gummy Bear and record your data in the correct portion of the chart. Also, determine the amount of change for each measurement, for each Gummy Bear and record in the chart.

Name: _____ Date: _____

Experiment Data Chart:

Water

Day	Length	Width	Thickness	Volume	Mass	Density
1						
2						
Amount of Change						

Water and Salt

Day	Length	Width	Thickness	Volume	Mass	Density
1						
2						
Amount of Change						

Vinegar

Day	Length	Width	Thickness	Volume	Mass	Density
1						
2						
Amount of Change						

Water and Baking Soda

Day	Length	Width	Thickness	Volume	Mass	Density
1						
2						
Amount of Change						

Questions:

1. Was your hypothesis correct? Why or why not?

2. Which change is greater - volume or mass? Explain.

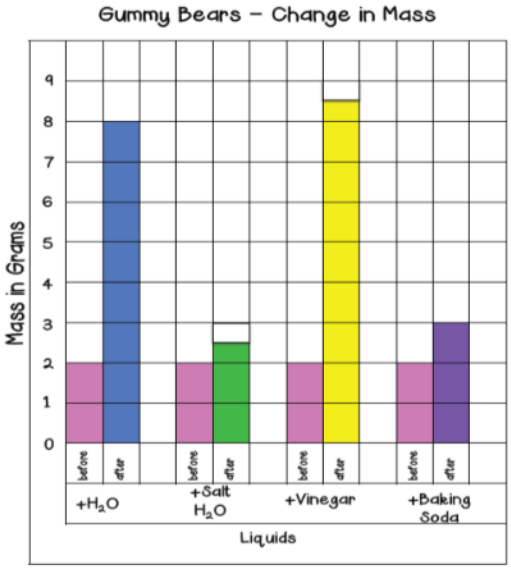
3. Was there a change in density? Why?

4. How do your results compare to those of your classmates?

BONUS ACTIVITY:

Create two bar graphs:

1. One showing the change in Length of each Gummy Bear in each of the solutions.
2. The second showing the change in Mass of each Gummy Bear in each of the solutions.



Name: _____ Date: _____

The Scientific Method

Pre-Experiment Observations 	Four Points (i.e. Weight, Size, Colour, Texture) • • • •
Ask a Question 	Why, How, What…
Form Hypothesis 	Make a prediction
Make a Plan and Follow it 	Experiment Procedure & Materials needed
Observe and Record 	Draw or write what you observed… Use a chart
Draw a Conclusion 	See if your hypothesis is accepted or rejected…