Name _____

Gummy Bear Experiment to Learn the Scientific Method

Objective:

Students will learn the steps of the scientific method by conducting an experiment to discover what happens when gummy bears are placed in different liquids.

Materials:

Gummy bears (at least 3)
3 clear cups or bowls
Water
Saltwater (1 cup of water mixed with 1 tablespoon of salt)
Vinegar
Measuring spoons and cups
Ruler or tape measure
Digital scale
Notebook and pencil

The Scientific Method Steps:

Ask a Question:
What will happen to gummy bears when placed in different liquids?

Make a Hypothesis: (What do you think will happen?) (grow, shrink, dissolve, change color)

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Conduct the Experiment: Here's how we will test our hypothesis:

Label the Cups:

Cup 1: Water

Cup 2: Saltwater

Cup 3: Vinegar

Measure the Gummy Bears:

Use the ruler to measure the height and width of a gummy bear. Use the scale to measure the mass of a gummy bear.

Place the Gummy Bears in Liquids:

Put one gummy bear in each cup of liquid.

Let them sit for 12-24 hours (overnight).

After 12-24 hours, remove the gummy bears from the liquids and measure them again.

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Write down what you see and compare the new measurements with the original size.

Analyze the Data

Compare the size of each gummy bear before and after soaking in the liquids. Did they grow, shrink, or stay the same?

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Water	Salt Water	Vinegar
Initial Mass: ____ g / mg	Initial Mass: ____ g / mg	Initial Mass: ____ g / mg
Final Mass: ____ g / mg	Final Mass: ____ g / mg	Final Mass: ____ g / mg
Initial Length: ____ mm / cm	Initial Length: ____ mm / cm	Initial Length: ____ mm / cm
Final Length: ____ mm / cm	Final Length: ____ mm / cm	Final Length: ____ mm / cm

Conclusion:

Look at your results and make a conclusion. What did you learn from the experiment? Did the different liquids affect the gummy bears in the way you predicted?

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