



Baking Soda Balloon

Materials:

- Baking soda
- Balloon
- Vinegar
- Plastic bottle

Procedure:

1. Fill the balloon with approximately 1/3 cup of baking soda.
2. Fill the plastic bottle with approximately 1 cup of vinegar.
3. Place the balloon over the mouth of the bottle and lift the balloon so the baking soda is able to fall into the vinegar.

The Science Behind It:

When baking soda and vinegar are mixed together, an acid-base reaction happens. This acid-base reaction creates carbon dioxide gas. The carbon dioxide gas then expands and inflates the balloon! Now try this: Once the balloon is inflated, take the balloon off of the bottle and close the opening of the balloon. See if the balloon will float.

Standards Used:

Ohio:

2-PS1-1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

5-PS1-4 Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

5-PS1-2 Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.

Pennsylvania:

3.2.PK.A Notice change in matter.

3.2.PK.B7 Ask questions about objects, organisms, and events. Participate in simple investigations to answer a question or to test a prediction. Use the five senses and simple equipment to gather data.

3.2.2.A5 Recognize that everything is made of matter.

S4.A.2.1.4 State a conclusion that is consistent with the information/data.

S4.A.2.1.4a Recognize the observation that supports a scientific fact.

S.K-2.A.2.1.2 Describe outcomes of an investigation.



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