BALLOON EXPERIMENT

Let's make a balloon inflate with a chemical reaction!

NAME: _____ DATE: _____



1. PREDICTION

What do you think will happen when we mix vinegar with baking soda?

_____

_____

_____

2. DRAW YOUR EXPERIMENT

Draw what you think will happen step by step.

1 2 3 4

3. OBSERVATIONS

What did you observe? What happened?

_____

_____

_____

4. WHAT DID I LEARN?

What did you learn from this experiment?

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_____

5. CHALLENGE QUESTION

What would happen if you used more baking soda or more vinegar? Why?

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_____

MATERIALS



1 empty plastic bottle

1 cup of baking soda

1 cup of vinegar

1 balloon

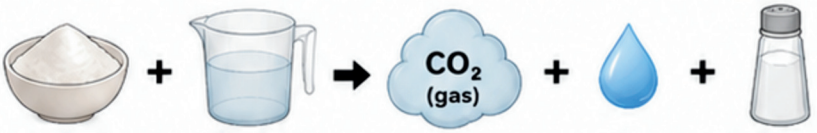
DIRECTIONS

1. Add the baking soda to the empty bottle.
2. Pour in the vinegar.
3. Quickly stretch the balloon over the bottle opening.
4. Watch as the balloon inflates.
5. Make sure the balloon is secure to capture all the gas.



WHY IS THIS HAPPENING?

When vinegar (an acid) reacts with baking soda (a base), it creates water, sodium acetate (a salt), and carbon dioxide gas (CO_2). The CO_2 gas fills the balloon, causing it to inflate.



Baking soda (Base) | Vinegar (Acid) | Water | Sodium acetate (Salt)

EXTRA QUESTION

What would happen if you used cold vinegar instead of warm vinegar? Why?

_____

_____

NOTE

Put the balloon on the bottle quickly to trap all the CO_2 gas and inflate the balloon!



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