

Physical vs. Chemical Changes

Name: _____ **Date:** _____

LEARNING OBJECTIVE

The student will observe and classify examples of physical and chemical changes, identifying evidence for each.

MATERIALS NEEDED

- Ice cube
- 1 tablespoon baking soda
- 1/4 cup vinegar
- A small balloon
- A small bottle or cup
- Notebook paper
- Pencil

HANDS-ON ACTIVITY

1. Place an ice cube on a plate and observe it melting over 10-15 minutes, recording your observations every few minutes.
2. Stretch a small balloon over the mouth of a small bottle that has baking soda inside it.
3. Carefully lift the balloon, pour vinegar into the bottle, then quickly reattach the balloon so it seals the opening.
4. Watch and record what happens to the balloon as the vinegar and baking soda react inside the bottle.
5. On notebook paper, list 3 pieces of evidence that the ice melting was a physical change and 3 pieces of evidence that the vinegar/baking soda reaction was a chemical change.

QUESTIONS

1. What happened to the balloon during the vinegar and baking soda reaction, and why?

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2. List two pieces of evidence that the ice melting was only a physical change.
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3. List two pieces of evidence that the vinegar/baking soda reaction was a chemical change.

4. Classify each of the following as physical or chemical change: tearing paper, burning paper, melting butter, rusting iron.
