

# Frankenstein's Hand

## Materials

- Baking soda
- Vinegar
- Rubber glove or balloon
- Funnel
- Canning jar or bottle (glass or plastic)

## Caution

- Always have an adult present when doing this experiment.
- Always wear correct safety gear, particularly eye protection.
- Balloons and gloves can become a choking hazard. Keep uninflated balloons and gloves or broken balloons and gloves away from children.

## Procedure



1. Use a funnel to add 3 tablespoons vinegar to jar or 1 cup vinegar to bottle.
2. Use a funnel to add 2 tablespoons baking soda to the rubber glove or 1/3 cup baking soda to balloon.
3. Adult supervision required: Carefully stretch the open end of the rubber glove or balloon around the neck of the jar or bottle trying not to drop any baking soda inside.
4. Adult supervision required: Once the glove or balloon is securely attached over the jar or bottle, carefully lift the glove or balloon to let all the baking soda drop in the glove or balloon.
5. Wait for the reaction to occur and observe as the balloon or glove fills with air. Mixing the 2 substances will result in a new substance!

## What Happens?

- When the baking soda is mixed with the vinegar, a chemical reaction creates carbon dioxide gas.
- The carbon dioxide gas fills the rubber glove or balloon, causing it to expand.

## How Does it Work?



Baking soda is sodium bicarbonate ( $\text{NaHCO}_3$ )

Vinegar is acetic acid ( $\text{CH}_3\text{COOH}$ )

Sodium bicarbonate and acetic acid react to make carbon dioxide, water and sodium acetate.

