

BOOMbox at Home

Creating a Gas

Mixing together baking soda and vinegar is a fun way to learn about chemical reactions that create gases. This is an easy experiment that anyone can do with common household items.

Supplies

For this activity, you will need:

- a jar
- a small plastic bag
- a rubber band
- vinegar
- baking soda
- safety goggles or glasses



Instructions

- Fill the jar one-third full with vinegar.
- Place one tablespoon of baking soda into the plastic bag.
- Use the rubber band to fasten the open end of the plastic bag onto the jar.
- Pick up the other end of the bag and hold it over the opening of the jar so that the baking soda drops into the vinegar. What happens when the two ingredients mix together?
- Squeeze the plastic bag. Does it feel like there is more air inside the plastic bag than before?

Want to explore more?

Mixing together vinegar, a liquid that is also known as acetic acid, and baking soda, a solid that is also known as sodium bicarbonate, results in a chemical reaction that creates carbon dioxide gas. You can explore the fizzing power of vinegar and baking soda by trying out lots of different kinds of experiments.

- Use a plastic bottle filled one-third full of vinegar and a balloon with one tablespoon of baking soda inside it to see the balloon expand as the chemical reaction occurs.
- Make a volcano out of modeling clay or paper maché, and pour some vinegar and red food dye into the crater. Drop in a spoonful of baking soda to watch the volcano explode!
- Experiment with different amounts of baking soda and vinegar to see what combinations make the biggest reaction.

What will you learn today?