

Bubble Bomb

The Action

The release of carbon dioxide in the reaction of vinegar and baking soda will cause a sealed plastic bag to expand and “explode”.

Grade Level

Grade 6 - Chemicals and Reactions

Materials

- Water
- A tablespoon
- Measuring cup
- Baking soda
- Zipper lock plastic bag
- Vinegar
- Paper towel

Instructions

- Cut a 5 inch by 5 inch square of paper towel. Place about one and a half tablespoons of baking soda in the center of the piece and fold the piece of paper towel into a square so that the baking soda is in the middle of the packet.
- Pour 1/2 cup of vinegar and 1/4 cup of water into the plastic bag.
- Drop in the baking soda packet and quickly close the bag. Once the bag is securely closed, shake the bag and stand back.

Safety

No harmful chemicals are used in this experiment. The exploding bag sometimes makes a bit of a mess so protective eye wear may be a good idea.

Hints

- To have a bigger reaction, place the packet of baking soda inside the bag, but do not let it touch the water and vinegar before the bag is closed. This can be achieved by holding the packet from the outside so that inside it stays away from the liquid. Once the bag is closed, the packet can be allowed to fall in and all the gas from the reaction will be in the bag since the bag was closed before the reaction started.
- Make sure beforehand that there are no holes in the bag and that it seals properly so that none of the gas will escape.

Science Principle

The bubbles in the bag are filled with carbon dioxide produced by the reaction of vinegar and baking soda. The bag fills with carbon dioxide until there is no more room and the bag pops.