

FULTON FRESH KITCHEN SCIENCE

Apple Volcano

Chemical reactions happen all around us, but how can we create our own?

SAFETY FIRST! Youth should always have parent supervision when performing science experiments.

MATERIALS

- 1 apple, medium to large-sized
- 1-2 teaspoons baking soda per apple
- Knife
- Optional: Dish soap
- 1 cup of Vinegar
- Paper towels
- Cutting board
- Plate
- Optional: Food coloring

PROCEDURE

1. Put the apple on a cutting board. Use a knife to cut a hole in the top of the apple about halfway down (an adult can do this).
2. Place apple on a plate. Add a couple of spoonfuls of baking soda into the hole in the apple. Add a few drops of food coloring to the apples, if desired. You can also add a couple of drops of dish soap to create more bubbles.
3. Pour about one cup of vinegar into the hole. The more vinegar you add, the larger the eruption!

APPLE SCIENCE

This *Little Bin and Little Hands* apple science activity is an cool example of chemistry at work. Chemistry involves states of matter, changes, solutions, mixtures, and the list goes on and on. This erupting apple science experiment uses baking soda and vinegar for a classic chemical reaction experiment. You could also try lemon juice and baking soda and compare the results!

This lesson was adapted from Little Bins, Little Hands
<https://littlebinsforlittlehands.com/erupting-apple-science-baking-soda-fizzy-activity/>

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Apple Volcano

What did the apple skin say to the apple? I've got you covered.

DID YOU KNOW?

Chemical reactions take place in our daily lives. See more information below from *Little Bin Little Hands*:

- Chemistry is all about states of matter including liquids, solids, and gasses. A chemical reaction occurs between two or more substances that change and form a new substance, and in this case a gas called carbon dioxide. In this case, you have an acid (liquid: vinegar) and a base (solid: baking soda) when combined make a gas called carbon dioxide which produces the eruption you can see.
- The carbon dioxide escapes the mixture in the form of bubbles. You can even hear them if you listen closely. The bubbles are heavier than air, so the carbon dioxide collects at the surface of the apple or overflows the apple because of the small vessel we have given it.
- In this baking soda apple volcano, the dish soap is added to collect the gas and form bubbles that give it a more robust apple volcano lava-like flow down the side! That equals more fun! You don't have to add dish soap but it's worth a try. You can even set up an experiment to see which eruption you like more.

Share a picture of your experiment with us on social media with the hashtag #localfoodmadefun.

Visit our website or social media channels for a follow-along video of this experiment.

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