

CANDY EXPERIMENTS



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MENTOS SODA FOUNTAIN

Time: 5 minutes

Skill Level: Medium

Did you know that candy can cause an eruption? To see how, try this. This experiment can get messy, so make the fountain outside, and wear old clothes.

What you need:

Toilet paper tube

Package of mint or fruit Mentos

2-liter bottle of Diet Coke

What to do:

- 1 Cut the toilet paper tube lengthwise, cut off a 1-inch-long strip, and then wrap the tube around the Mentos package. When you can easily slide the Mentos in and out, tape the sides together.
- 2 Open the Coke bottle and the Mentos package.
- 3 Fill the cardboard tube with Mentos. Block the bottom with the cardboard strip.
- 4 Hold the tube over the Coke bottle opening. When you're ready, remove the strip and let

the Mentos fall into the Coke. Then get out of the way!

What's happening:

Soda pop is full of carbon dioxide gas. When you drop in Mentos, bubbles of carbon dioxide form on the surface of the candy. So many bubbles form so fast that they push the soda right out of the bottle.

Why use Mentos and Diet Coke? The rough surface of Mentos creates lots of places for bubbles to form. As they form, more carbon dioxide turns into gas and makes the bubbles bigger. More gas is released. Mentos also contain gum arabic, a surfactant, which decreases surface tension in the soda, so that bigger bubbles can grow. Diet Coke also contains surfactants.

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ROCK CANDY CRYSTALS

Time: About 1 week

Skill Level: Get a grown-up

Rock candy is made from sugar crystals. Here's how you can make sugar crystals at home.

What you need:

Table sugar

Water

Small microwave-safe bowl

Microwave

String and a pencil (optional)

What to do:

- 1 Mix 2 tablespoons of sugar with 1 tablespoon of water in the bowl.
- 2 Microwave for 15 to 30 seconds, or until the sugar dissolves. **(Caution: hot!)**

- 3 **Optional:** Tie a short piece of string to a pencil, and lay the pencil over the bowl so that the string dangles in the water. The crystals that form on the string will be easier to see.
- 4 Wait for several days and watch for crystals.

What's happening:

When table sugar (sucrose) dissolves in water, the sucrose molecules separate and mix with the water. As the water evaporates, the sucrose molecules get closer to each other, and lock together to form crystals.

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