



Science Experiments for Kids



Enjoy fun science experiments for kids that feature awesome hands-on projects and activities that help bring the exciting world of science to life.

Diet Coke & Mentos Eruption

One of the most popular experiments of modern times is the Diet Coke and Mentos Geyser. Made popular by Steve Spangler, this experiment is a lot of fun and sure to amaze your friends and family (assuming you do it outside rather than in the living room).

What you'll need:

- Large bottle of Diet Coke (for the experiment to work well – use Diet Coke)
- About half a pack of Mentos
- Geyser tube (optional but makes things much easier – can use a rolled piece of paper to make a funnel)

Instructions:

Word to the wise – For the best results: Keep the Diet Coke top and Mentos packaging sealed until just before you are ready to drop the Mentos in. This will keep the CO₂ in the Coke and the Mentos free of changes to the surface from hand oils and humidity.

1. Do this experiment in a place where exploding Diet Coke everywhere won't be a problem. Outside on some grass is perfect; please don't try this one in your family living room!!
2. Stand the Diet Coke upright and unscrew the lid. Put some sort of funnel or tube on top of it so you can drop the Mentos in at the same time (about half the pack is a good amount). Doing this part can be tricky without a geyser tube, but one may be purchased from a local store or online.
3. Time for the fun part, drop the Mentos into the Diet Coke and run like mad! If you've done it properly a huge geyser of Diet Coke should come flying out of the bottle, it's a very impressive sight. The record is about 9 metres (29 feet) high!

What's happening?

Although there are a few different theories around about how this experiment works, the most favoured reason is because of the combination of carbon dioxide in the Diet Coke and the little dimples found on Mentos candy pieces.

The thing that makes soda drinks bubbly is the carbon dioxide that is pumped in when they bottle the drink at the factory. Some gets released from the liquid until you open the bottle, pour it into a glass and drink it. So there's a whole lot of carbon dioxide gas just waiting to escape as bubbles.

Dropping anything into the Diet Coke speeds up this process by both breaking the surface tension of the liquid and also allowing bubbles to form on the surface area of the item. Mentos candy pieces are covered in tiny dimples (a bit like a golf ball), which dramatically increases the surface area and allows a huge amount of bubbles to form.

The experiment works better with Diet Coke than other sodas due to its slightly different ingredients and the fact that it isn't so sticky. I also found that Diet Coke that had been bottled more recently worked better. So check the bottle for the manufacturing date.