

# SCIENCE MUSEUM GROUP



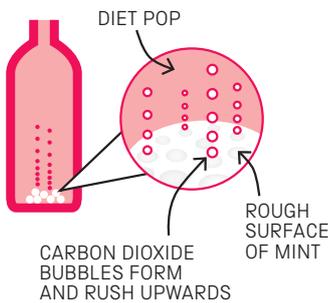
## FIZZY FOUNTAIN

<b>MAKING</b> 	Age <b>7-11</b> <b>11-14</b>	Topic	<b>MATTER</b>	 <b>20 MIN</b>
	Skills used <b>MAKING OBSERVATIONS • CURIOSITY</b>			

## Overview for adults

**Carbon dioxide is the gas that makes carbonated drinks fizzy. Usually, if you shake up a bottle of fizzy pop and open it, the gas will escape, as will some of the liquid. This activity will show you a way to make that happen with mints, instead of shaking up the bottle.**

### What's the science?



When you shake a bottle of fizzy drink, bubbles form on the inside of the bottle. You can't see this with your eyes, but the surface of the inside of the bottle is rough and has lots of tiny pits where the bubbles can form.

Just like the inside of the bottle, the surface of the mints is really bumpy and is the perfect place for carbon dioxide (CO<sub>2</sub>) bubbles to form. As soon as the mints hit the fizzy pop, bubbles begin to form on the surface of the mints. These bubbles of CO<sub>2</sub> gas begin to rush to the surface of the liquid, which causes the huge explosion!

### Science in your world

Carbon dioxide gas makes dough rise. It is normally produced by baker's yeast, which releases it through fermentation of sugars in the dough, or by baking soda (sodium bicarbonate), which produces the gas when it is mixed with acids such as vinegar, or when it is heated.

### Did you know...?

A Guinness World Record of 4,334 simultaneous fizzy pop eruptions was set in November 2014 in León, Mexico.

### You will need...



Roll of Mentos  
(mint sweets)

Tube



2-litre bottle  
of diet fizzy pop

**Top tip:** This activity is quite messy and so should be done outside. Diet pop is recommended as it is less sticky than ones with sugar.

### Think and talk about...

- Before you start, how high do you think the fountain will go?
- What do you think is happening?
- What gas do you think is being produced?

### Investigate...

- Experiment with different fizzy pops to see if any work better than others.
- Is there a pattern between how many sweets you put in and how high the fountain will go?
- Do other sweets or mints work just as well?
- Does the shape of the bottle affect the eruption?

## Follow these steps...



**1** Open the bottle of fizzy pop and stand it in an outside space.



**2** Open the packet of Mentos and pour them into the tube.



**3** Place the tube to the top of the bottle and pour all the sweets in at the same time.



**4** Stand back and watch!

---

## Science in your world

Carbon dioxide gas is useful in baking, as it helps cakes and bread dough to rise.

