



# SCIENCE OUTSIDE THE CLASSROOM

## Blobs in a Bottle (the world's easiest lava lamp)

**Suitable age group:** 7-12 years

### You will need:

- 1 clean, clear plastic, soft drink bottle
- 3/4 cup of water
- Cooking oil
- Fizzy tablet (such as Gaviscon)
- Food colouring

### What to do:

Pour the water into the bottle.

Use a measuring cup or funnel to slowly pour the cooking oil into the bottle until it's almost full. You may have to wait a few minutes for the oil and water to separate.

Add 10 drops of food colouring to the bottle. The drops will pass through the oil and then mix with the water.

Break a fizzy tablet in half and drop the half tablet into the bottle. Watch it sink to the bottom and let the blobby greatness begin!

To keep the effect going, just add another half tablet. For a true lava lamp effect, shine a torch or mobile phone through the bottom of the bottle.

### How does this work?

To begin, the oil stays above the water because the oil is lighter than the water or, more specifically, less dense than water. The oil and water do not mix because of something called "intermolecular polarity." That term is fun to bring up at the dinner table. When you added the fizzy half tablet, it sank to the bottom and started dissolving and creating a gas. As the gas bubbles rose, they took some of the coloured water with them. When the blob of water reached the top, the gas escaped and down went the water. Cool, huh?

By the way, you can store your "Blobs in a Bottle" with the cap on and then anytime you want to bring it back to life, just add another half tablet.