

MAKE YOUR OWN LAVA LAMP



Channel your inner 70s with this fun and easy activity! This is a great way to re-use unwanted plastic bottles or glass jars from around the house as well.

You will need

- 💧 A transparent bottle or jar with a lid that can be screwed on tight (plastic or glass bottles or jars both work).
- 💧 Vegetable oil.
- 💧 Food colouring (you can add more than one colour for extra flair).
- 💧 Fizzing tablet such as Alka Seltzer.
- 💧 *Optional:* glitter

Method

- 1 Fill your bottle or jar a quarter of the way with water.
- 2 Add a few drops of your food colouring/s and gently shake to ensure they are well mixed. If you are using glitter, you can add this as well. A teaspoon is generally enough but if you are using a larger bottle, you may want to add more.
- 3 Fill the rest of the bottle with vegetable oil.
- 4 Add half of the fizzing tablet and observe what happens. Add the other half once the first half has dissolved. Adding the whole tablet at once can make the mixture 'over-fizz'.
- 5 Once the tablet has completely dissolved and the mixture calms down, you can screw the lid on the bottle and gently tip the bottle back and forth to stimulate the bubbles and movement of the oil again.

The science

Carbon dioxide (CO₂) is released as the fizzing tablet dissolves. The CO₂ bubbles attach to water and food colouring (and glitter) and pull them up. The bubbles pop when they reach the top, releasing the water molecules and food colouring causing them to sink through the oil and back to the bottom. The process repeats as the tablet continues to dissolve and release more CO₂.

When you first added the oil to the water, you may have noticed that the two items separated. This is because water is denser than oil so will sink to the bottom while the oil sits on top. When you add the fizzing tablet, the water combined with the CO₂ becomes less dense and so rises to the top. Once the bubble has popped, the water becomes denser again and so sinks to the bottom.

These lava lamps can be kept. To stimulate the bubbles once more, you will just need to add small amounts of fizzing tablets to the mixture again or tip back and forth gently.

If you are discarding your lava lamp, please do not pour the mixture down your drains. Putting fats, oils and grease (FOG) down your drains can cause nasty blockages. Instead, you could pour your mixture carefully on to newspaper to collect the oil and then put this in your food waste bin. If you have used glitter, you won't be able to do this unless you have used biodegradable glitter, which is better for the environment.

To find out more about Stop the Block, please visit our website wessexwater.co.uk

You can also have a look at our education page to find more fun resources and investigations wessexwater.co.uk/community/education

