HOME MADE

LAVA LAMPS

Why do some of the drops of food colouring not mix with the water straight away?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Why does the oil float on top of the water?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

SCIENCE!

As the tablets dissolve in the water they react and produce carbon dioxide gas as fizzy bubbles. These bubbles attach to blobs of dyed water and the blobs rise up through the oil. When they reach the top the gas escapes as the bubbles pop. The coloured drops of water are left at the top. Water is more dense than oil so the water blobs sink back to the bottom. Sometimes as you drop food colouring into the oil, the blobs of food dye are coated in oil. When they reach the bottom the oil coat stops the food colouring mixing with the water straight away.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

YOUTH WILL NEED:

1 plastic bottle (<500ml)
Jug
Vegetable oil
Tap water
Food colouring (blue/red)
Alka Seltzer tablets
Plastic mat to cover the table

HOW TO

1. Pour vegetable oil into the bottle until it’s 3/4 full.

2. Fill the rest of the bottle with tap water. Watch as the water sinks to the bottom.

3. Add 5 or 6 drops of food colouring.

4. Break up the Alka Seltzer tablets and drop them into the bottle.

5. Watch as the dyed bubbles rise and fall in the oil (for best results shine a torch through the bottle).

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Why do the bubbles rise up when the tablets are added? Why do the drops fall back downwards through the oil again?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
WHAT IS Oobleck?

HOW TO MAKE IT

1. Get some cornflour and a large bowl. Don’t use normal flour – it won’t work!

2. Mix a cupful of cornflour with about half as much water.

3. The mixture should flow around when you tilt the bowl but be very hard to stir with a spoon. If it’s too runny, add more flour; if it’s too hard, add more water.

4. You have Oobleck! Try stirring it quickly, or picking it up in your hands. Try not to make too much mess!

STUFF TO THINK ABOUT

Is oobleck a solid or a liquid? Or is it both? Or neither?

What is it about oobleck that’s so strange? How does it compare to other liquids, like water, or honey?

HOW IT WORKS

The little pieces of cornflour powder are all different shapes, and float around in the water. Normally they can move past each other, but if you try and move them too quickly, they get in each others’ way and get stuck. This is a bit like lots of people leaving a room – if they rush out too fast there’ll be a jam and no one can get out!