

# LAVA LAMPS

## Equipment

- Plastic 500ml bottle with lid (1 per child)
- Vegetable oil (about 250ml per child)
- Funnel
- Jug for water
- Food colouring
- Alka Seltzer tablets (1/2 per child)
- Pipettes

## Method

1. Give each child a plastic bottle and a lid. (Inform children that they must keep the lids on their bottles between ingredients being added, in order to prevent spillages. Bottles should only be left uncapped directly after adding Alka Seltzers, as below)
2. Using a funnel, pour vegetable oil to approximately halfway to the shoulders of each bottle (not halfway to the top)
3. Using a funnel, pour cold water (from a jug) the rest of the way to the shoulders on each bottle
4. Add a few drops/pipettes of food colouring (not too much but enough to give a good colour) to each bottle
5. Add ½ of an Alka Seltzer tablet to each bottle and watch it fizz! (Leave the bottle uncapped while it fizzes)
6. You can add another ½ Alka Seltzer tablet if there is time
7. Recap each bottle once the fizzing has stopped – usually a couple of minutes after adding the tablet

The children can take their lava lamps home. (They can keep them for about one week before disposing of them - germs etc. from hands will breed. Oil should not be poured down the sink, though!)

## The Science

Oil and water do not mix. The oil is less dense and floats on the water. (If the lava lamp is shaken, the oil only breaks into little droplets and still does not mix. It's best not to shake the lamps as they will go cloudy). The Alka Seltzers produce a gas (carbon dioxide) when added to the water. The gas bubbles rise to the surface, lifting up the coloured water. This sinks to the bottom again once the bubbles have popped at the surface.

## Health and Safety

Please monitor the distribution of the Alka Seltzer tablets to ensure that they are safely used. Ensure that any oil spillages are mopped up immediately.

