

# Bentleigh West Kindergarten Inc.

HOME LEARNING – Science experiment



## LAVA LAMP IN A BOTTLE EXPERIMENT

Materials:

- A clean bottle or glass, try to use one with smooth sides
- Water
- Clear oil (I used Baby Oil)
- Fizzing tablets (I used Alka Seltzer)
- Food Colouring

Instructions:

1. Fill the bottle/glass up about 3cm with water.
2. Pour the oil in the bottle/glass until the bottle is 2/3 full. You may want to use a measuring cup with a spout or a funnel. You may have to wait a couple of minutes for the oil and water to separate into two layers.
3. Add a few drops of your favorite food colouring. Did your drops of colour mix with the water immediately or float in between for a few minutes?
4. Break your fizzy tablet in half and drop part of it into the bottle/glass. Get ready ... here come the bubbly blobs! If you want, you can use a second table to create more fizz.

How it Works:

The oil floats on top of the water because it is less dense or lighter than water. The food colouring has the same density as the water, so it sinks through the oil and mixes with the water. When you add the tablet, it sinks to the bottom then starts to dissolve. As it dissolves it makes gas - carbon dioxide. Gas or air is lighter than water, so it floats to the top. The air bubbles bring some coloured water with them to the top. When the air comes out of the coloured water blob, the water gets heavy again and sinks. It does this over and over again until the tablet is completely dissolved.



## Extensions:

- What happens if you put the cap on after dropping the fizzy tablet in?
- What if you drop a whole tablet in?
- What happens if you add some more drops of colours?
- When it stops bubbling, try sprinkling some salt into your lava lamp. What happens?
- What happens when you add another tablet after the first one is dissolved?

Note: please remind your child not to consume any parts of the experiment

