



Make Your Own Lava Lamp

Oil and water don't mix.

Oil always floats on top...or does it?

What You Need:

- clear plastic drink bottle
- water
- food colouring
- cooking oil
- salt

What To Do:

- Pour water into the bottle until it is two thirds full.
- Add a few drops of food colouring to the water.
- Pour in a small quantity of oil, just enough to form a layer on top of the water.
- Sprinkle a few pinches of salt onto the oil and watch what happens.
- Keep adding salt to make your experiment last longer.



What's Going On:

You've heard the saying "oil and water don't mix"?

A teaspoon of water is much denser than a teaspoon of oil -- in other words, it's heavier.

Density is a measurement that can be used to explain why things sink or float.

Oil makes a layer on the surface of the water because it is less dense, or lighter, than the water.

When the salt is sprinkled into the bottle, it sinks to the bottom taking a glob of oil with it.

The salt then dissolves in the water leaving the oil to float back up to the surface.

Links:

How a LavaLamp works: <http://www.howstuffworks.com/question36.htm>

The Myth Behind the Lamp: <http://www.oozinggoo.com/themyth.html>

The Giant Lava Lamp Project: <http://www.giantlavalamp.com/>

Lava-generated Numbers: <http://www.lavarnd.org/>

source: <http://www.abc.net.au/spark/experiments/s1158082.htm>