

# Experiment

## Separating Water and Oil

### Equipment

You will need:

- Oil – (sunflower oil is quite cheap, probably not a good idea to use mom’s best olive oil without asking first)
- Water – straight out the tap, try not to waste any
- Food Colouring – Any colour will do (but yellow might not be a good idea as you want it the water to appear a different colour to the oil)
- Water bottle – or any other kind of container preferably with a lid so you can shake it up

### Safety

- Make sure you have the lid on the water bottle!!! Oil is quite difficult to clean up (as it does not mix with water :D ) and food colouring may stain.
- Wear old clothes in case food colouring ‘somehow’ appears on your brand new T-shirt!
- Stay away from electrical sockets to avoid nasty shocks in the event of a spill.

### What to Do

1. Approximately quarter fill your water bottle/container with the water.
2. Add several drops of food colouring until the water is a vivid shade of that colour.
3. Add about a quarter of a container of oil to your bottle.
4. Put the lid on and shake!
5. Wait for the two layers to separate – don’t expect this to happen in seconds, it will take a couple of minutes, you could always put on a cup of tea.

### Expected results

Before



← Shaken layer of oil and water

After



← Oil layer

← Water layer