

Wave in a bottle

Brief summary:

In this activity you will experiment with making waves in a bottle using water, vegetable oil and food colouring.

You will need:

- Empty plastic bottle and cap
- Vegetable oil
- Water
- Food colouring

What to do:

Step 1. Remove the label of the water bottle by soaking the bottle in hot water.

Step 2. Fill the bottle with 3/4 cup of water.

Step 3. Add a few drops of food colouring to the water.

Step 4. Pour 1 cup of oil into the bottle and screw the cap on to the bottle tightly.

Step 5. Roll the bottle on its side and let it settle for a few minutes. The water will sink to the bottom and the oil will rise to the top.

Step 6. Now tip the bottle back and forth and make some waves. The waves will be bigger at one end of the bottle and smaller at the other.

Take it further:

Experiment with different ratios of water to oil – what happens if there is more or less water or oil?

Have a look at our other 'in a jar' experiments: *Make a cloud in a jar* and *Make a tornado in a jar*.

Big questions:

- How can we use waves to make electricity?
- What percentage of planet earth is water?
- What percentage of water on earth is freshwater, suitable for drinking?



For more information on how you can help our environment, or to make some suggestions of your own, please go to www.coolaustralia.org