

# Tornado in a bottle



## You will need:

1. Water
2. Clear plastic bottle with a cap
3. Dish washing liquid
4. Glitter-optional

## The science behind:

Spinning the bottle in a circular motion creates a water vortex that looks like a mini tornado.

The water is rapidly spinning around the centre of the vortex due to centripetal force.

The centripetal force is an inward force directing an object or fluid such as water towards the centre of its circular path.

1. Fill the plastic bottle with water up to  $\frac{3}{4}$ .
2. Add a few drops of dishwashing liquid.
3. Sprinkle in some glitter (it will make your tornado easier to see).
4. Put the cap on tightly.
5. Turn the bottle upside down and hold it by the neck. Quickly spin the bottle in a circular motion for a few seconds, stop and look inside to see if you can see a mini tornado forming in the water.