

TORNADO IN A BOTTLE



TORNADO IN A BOTTLE

SCIENCE
CHALLENGE

07

Designed by Adam,
Design engineer at Dyson

The brief

Create a water vortex in a bottle.

The method

1. Fill the plastic bottle with water until it reaches around three quarters full.
2. Add a few drops of washing up liquid.
3. Sprinkle in a few pinches of glitter (this 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. You might need to try it a few times before you get it working properly.

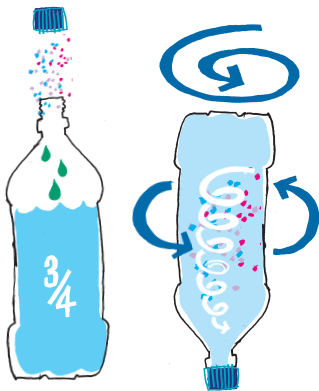
Materials

Water

A clear plastic bottle

Glitter

Washing up liquid



How does it work?

The water is rapidly spinning around the centre of the vortex due to centripetal force. This is an inward force directing an object or fluid such as water towards the centre of its circular path.

Did you know?

Vortices found in nature include tornadoes, hurricanes and waterspouts.

