



Tornado in a bottle

Materials

- Soft drink bottles, with a small hole in the caps
- Duct tape or electrical tape
- Water
- Food colouring



[Original source link: nasa.gov](https://www.nasa.gov)

Instructions

Bring the class together and ask what they know about **tornados** and **cyclones**. Allow them to ask questions and explain how they are formed.

1. Give each student two soft drink bottles of equal size.
2. Take the bottle cap with a hole in the top and place it upside down on the bottle so the screw threads are facing up.
3. Secure the cap to the bottle with duct or electrical tape.
4. Take the other bottle and fill it approximately 2/3 of the way with water,.
5. Add a few drops of food coloring (This is not necessary but allows for better observation of the demonstration)
6. Screw the empty bottle on top.

Now to demonstrate a **tornado**!

7. Make sure the cap is securely fastened with tape.
8. Flip the bottle over so the empty bottle is on the bottom.
9. A thin intermittent stream of water will enter the lower bottle.
10. Gradually start swirling the water around inside the bottle. Be sure not to shake the bottles.

The swirling water is creating a **vortex** – your very own **tornado** in a bottle!