





Jupiter Tornadoes

Check your resource packs for supplied items, there will be some items you will need to find from around the home to complete this activity

Resource List: Jupiter Tornadoes			
Quantity	Item	Quantity	Item
One Per participant/group	A clear plastic bottle with a cap (that will not leak)	Few Drops	Dish washing liquid
Different Colours	Different colours of glitter	3/4 bottle full	Water

Activity image gallery (plans, maps, diagrams, photos, links, instructions, recipes, production stages etc.)

INSTRUCTIONS:

1. Fill the plastic bottle with water until it reaches around three quarters full.
2. Add a few drops of dish washing 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.

THE SCIENCEY PART:

- 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 (an inward force directing an object or fluid such as water towards the centre of its circular path).
- Vortexes found in nature include tornadoes, hurricanes, and waterspouts (a tornado that forms over water). These can be found on other planets too, which experience hugely powerful storms – especially on Jupiter, whose Great Red Spot is a storm containing vortexes that has been raging for hundreds of years!
- Jupiter's Great Red Spot is a gigantic storm that's about twice as wide as Earth, circling the planet in its southern hemisphere. At the storm's center, winds are relatively calm, but on its edges, wind speeds reach 270-425 mph (430-680 km/h). That's more than twice the speed of even the strongest hurricanes on Earth, which can generate wind speeds of up to 175 mph (281 km/h).