# Make lightning





#### **MATERIALS:**

- disposable round aluminium foil tray
- small piece of wool fabric
- styrofoam plate
- pencil with a new rubber on top
- drawing pin



- 1. Push the drawing pin through the middle of the tray from the bottom.
- 2. Push the rubber end of the pencil into the drawing pin.
- Place the plate upsidedown on a table. Rub it with the wool for 30 seconds.
- **4.** Pick up the foil tray (holding the pencil) and place it on top of the plate.
- **5.** Touch the aluminium with your finger—you should receive a shock! If nothing happens, go back to step 3 and repeat.
- **6.** Turn out the lights and see if you can see a spark of lightning pass between the tray and you!

Have a look at <a href="http://www.youtube.com/watch?v=-ig-AjtZ8oc">http://www.youtube.com/watch?v=-ig-AjtZ8oc</a> for a similar demonstration.

# **Thermometer**

## **MATERIALS:**

- clear plastic bottle
- water
- rubbing alcohol
- clear straw
- plasticine/modelling clay
- food colouring

### **INSTRUCTIONS:**

- **1.** Fill 1/4 bottle with equal amounts of water and rubbing alcohol.
- 2. Add a few drops of food colouring.
- **3.** Place the straw in the bottle, but don't let it touch the bottom. Use the plasticine to seal the neck of the bottle so the straw stays in place.
- **4.** Hold the bottom of the bottle and watch as the liquid moves up through the straw.



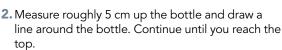
# Rain gauge

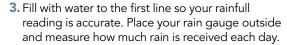
### **MATERIALS:**

- plastic bottle
- permanent marker
- ruler
- scissors

#### **INSTRUCTIONS:**

1. Cut the top off the bottle so the opening is the same size as the bottom.



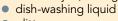


**4.** Older students can show the results collected over one week in a line graph.

# Tornado in a jar

### **MATERIALS:**

• tall clear jar (no ridges) with lid







## **INSTRUCTIONS:**

- 1. Fill 3/4 of the jar with water.
- **2.** Put a small drizzle of dish-washing liquid in the jar.
- 3. Add roughly a teaspoon of glitter.
- 4. Screw the lid on nice and tight.
- **5.** Shake the jar to mix the ingredients, then swirl the jar around.
- **6.** Hold the jar steady and watch the tornado in the jar.

A demonstration can be found at <a href="http://www.youtube.com/watch?v=IF2ZByWaUMI">http://www.youtube.com/watch?v=IF2ZByWaUMI>