

Make your own weather station

Why don't you have a go at making a weather station with the help of the instructions below? This activity should be supervised by an adult – younger children may need help with the cutting that is involved.

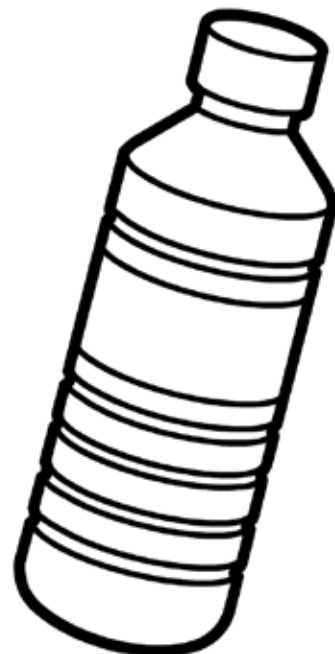
Make your own rain gauge

What you will need:

- ▶ An empty plastic bottle (2-litre fizzy drink bottle would be ideal).
- ▶ Scissors
- ▶ Sticky tape
- ▶ Ruler
- ▶ Paper
- ▶ Pencil

What to do:

1. Cut around the plastic bottle about two thirds of the way up.
2. Turn the top part of the bottle upside down and place it inside the bottom part – fix it in place using the tape.
3. Make a scale in centimetres on a piece of tape, using a ruler, and fix it to the side of your bottle.
4. Find a place outside to put your rain gauge. It must be open and away from the trees.
5. Dig a hole and bury your rain gauge so that the top is sticking out about 5 cm out of the ground. This will stop the rain gauge from blowing down on windy days.
6. Check the rain gauge every day at the same time, measure the amount of rain collected, and empty the bottle.



Don't forget to write down the amount of rain collected in your weather diary.

Make your own weather station

Make a box for your thermometer

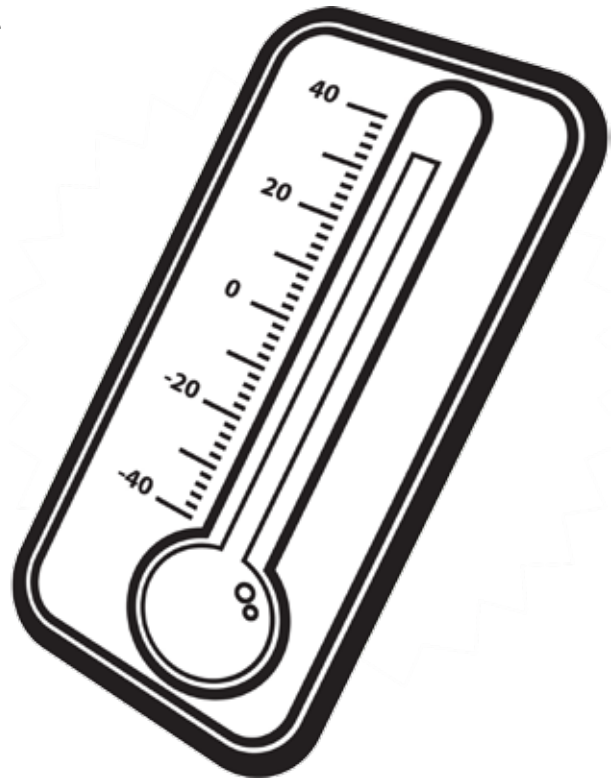
Thermometers are kept in special boxes (Stevenson screen) to protect them from sunshine, wind and the surroundings. You can make your own special box.

What you will need:

- ▶ A sturdy plastic or wooden box that can stand on its side
- ▶ White paint
- ▶ A thermometer
- ▶ Blu-Tack (or similar)

What to do:

1. Paint the outside of your box white and wait until it's dry.
2. Stick the thermometer to the back of the box using Blu-Tack.
3. Take the box outside and find a safe, shady place to keep it.
4. Stand the box on its side so that the thermometer is upright at the back of the box and protected from direct weather conditions.
5. Now you can take temperature readings at the same time every day.



Make your own weather station

Make your own wind vane

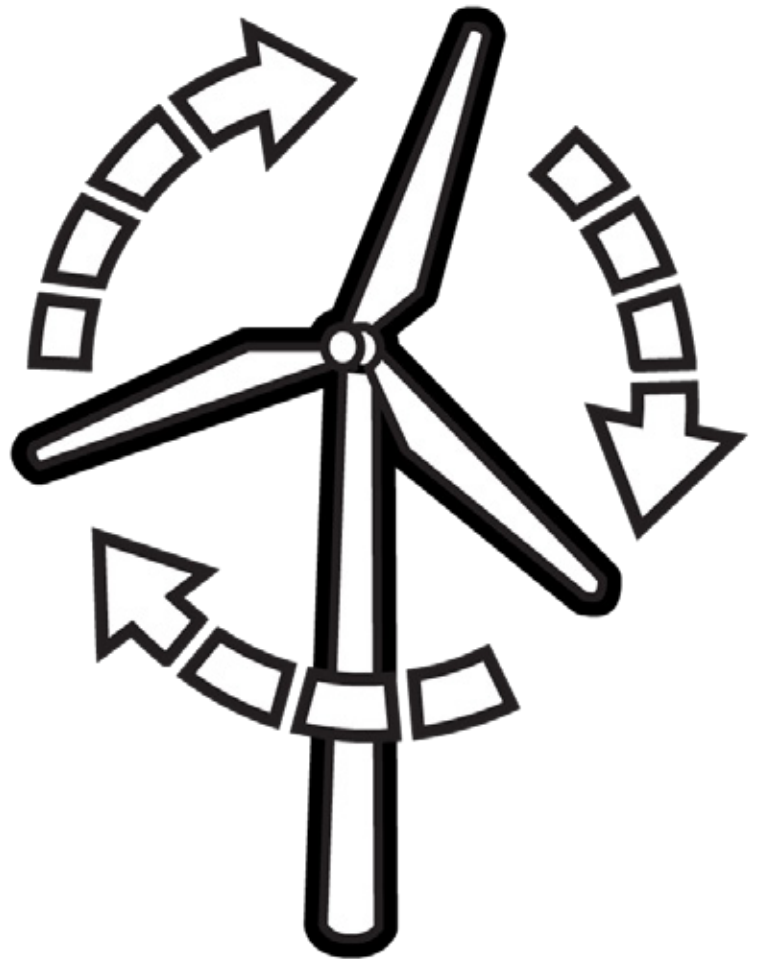
The instrument used for measuring wind direction is called a wind vane.

What you will need:

- ▶ A ruler
- ▶ A pen top
- ▶ A plastic fizzy drink bottle
- ▶ Card
- ▶ A knitting needle
- ▶ Matchsticks
- ▶ A cork
- ▶ Sand
- ▶ Blu-Tack (or similar)

What to do:

1. Draw an arrow 25 cm long on the card and cut it out.
2. Make another arrow by drawing around the first arrow and cutting it out.
3. Place the pen top between the arrows, in the centre facing down, and glue together.
4. Push four matchsticks into the long edge of the cork at right angles to each other.
5. Cut out four small squares of card and label with the four main points of the compass: N, E, S, W. Attach these to the end of each matchstick with Blu-Tack.
6. Fill the bottle with sand.
7. Push the knitting needle into the cork and push the cork in the top of the bottle. Now balance the wind vane arrows on top of the needle.
8. Choose an open area, perhaps near your rain gauge, to place your wind vane. Ask an adult or use a compass to point the N label on the bottle towards North.



If you liked making a weather station, why not have a go at making a windmill in our [Wind Watch activity](#)?