

Student task 1:

Make at least one of these two weather instruments by following the instructions. You could get help by looking at these two instruction videos:

Rain gauge - www.youtube.com/watch?v=QOzdcM-YZ2U

Weather vane - www.youtube.com/watch?v=2qV3KExr_k0 (slightly different method to the instructions, but still works)

Rain gauge	Weather vane
<p>What you will need:</p> <p>An empty plastic bottle (2 litre fizzy drink bottle would be ideal), scissors, sticky tape, ruler, paper, pencil.</p> <p>What to do:</p> <ol style="list-style-type: none"> 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 trees. 5. Dig a hole and bury your rain gauge so that the top is sticking out about 5cm 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. 7. Don't forget to write down the amount of rain collected in your weather diary. 	<p>What you will need:</p> <p>A ruler, a pen top, a plastic fizzy drink bottle, card, a knitting needle, matchsticks, a cork, sand, Blu-Tack (or similar)</p> <p>What to do:</p> <ol style="list-style-type: none"> 1. Draw an arrow 25cm 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.

Student task 2:

Once you have made your DIY weather instrument/s, create a weather diary.

For one week you must record the following:

- Temperature
- Wind direction at the time of checking (using your instrument) or amount of precipitation (measured in your rain gauge)
- General weather conditions

Where might you find the information for the temperature and general weather conditions?

You must create an entry for your weather diary twice a day - try to stick to the same times every day.

You **must** include a photo of your DIY weather instrument.