



# Let's Talk About Clouds.

**STEM Education worksheet provided by  
Dundee Science Centre.**

These worksheets work in conjunction with our **Let's Talk About** video series that can be found on our Instagram @dundeesciencecentre.

They are designed to engage and educate on interesting science topics to support the curriculum for learners of all levels.



## Weather Measuring Machine!

Scientists are always trying to predict the weather, including whether there's going to be lots of clouds. One of the machines scientists use to do this is called a **barometer**, which measures something called **air pressure**.

You have probably felt wind push you before, but even when we can't feel it, air is always pushing on things; that's what we call air pressure.

### The Activity

We are going to trap a little bit of air in a jar, and when the air pressure is high (the air is pushing more), it will try to get into the jar, **pushing the balloon in**.

When the air pressure is low (the outside air is pushing less), the air in the jar will try to get out and **push the balloon out**.

### Top Tips!

- Get help from an adult when using glue and scissors.
- Keep your barometer somewhere that doesn't change temperature a lot.
- Experiment with different materials.



# Make Your Own Barometer!

## You will need

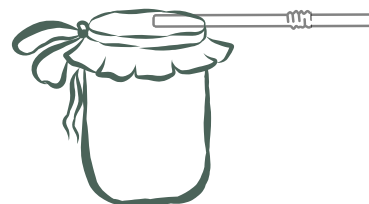
- 1 jam jar or similar glass
- 1 balloon
- 1 wooden skewer or straw
- A rubber band/string/ribbon
- Some super glue

## Instructions

**Step 1:** Cut the neck off the balloon and stretch it over the top of the jar so the top is flat. Put the rubber band around, or tie a string around the neck to help keep it tight.



**Step 2:** Using super glue fix the straw or skewer so that one end is in the middle of the balloon and the other end extends flat out over the edge.



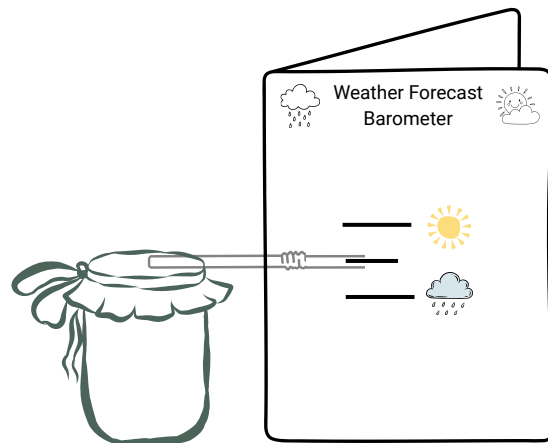
**Step 3:** If you are using a straw, cut the free end diagonally so it has a point. This will make the barometer easier to read.

## Instructions Continued

**Step 4:** Print off the next page and either fold the dotted lines so it stands up on its own or cut the dotted lines and stick the middle section to a wall.

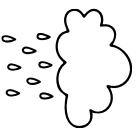
**Step 5:** Try to find somewhere that doesn't change temperature too much and place your barometer so that the straw points along the middle of the page like the hand of a clock.

**Step 6:** 1cm above the first line, make a second line and draw a picture of the sun next to it. 1cm below the first line, make another and draw rain next to it.



**Want to know what the weather is like where you live?**

If you want to learn about the air pressure in your area, visit [www.metoffice.gov.uk](http://www.metoffice.gov.uk), type in your postcode, and scroll down to the **last 3 days weather** button.



## Weather Forecast Barometer



Look below, if the straw is pointing at the higher mark it means air pressure is high and its more likely to be a dry day. If its pointing low it means low air pressure and its more likely to rain!

Place your barometer so the straw is running along the close to the paper, and make a mark, then make a mark 1 cm above and 1 cm below this first mark.