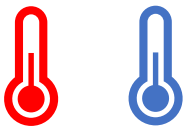
Rampion weather watch - Temperature and pressure

Rampion
Offshore Wind

Temperature



Temperature is a measure of how much heat energy something has, when measuring the weather, we usually want to know the temperature of the air.

To measure the air temperature, we use a thermometer. There are three different scales of measurement for temperature and the units they use are called Celsius, Fahrenheit, and kelvin. The Celsius scale (°C) is part of the metric system and today the most common form of temperature measurement.

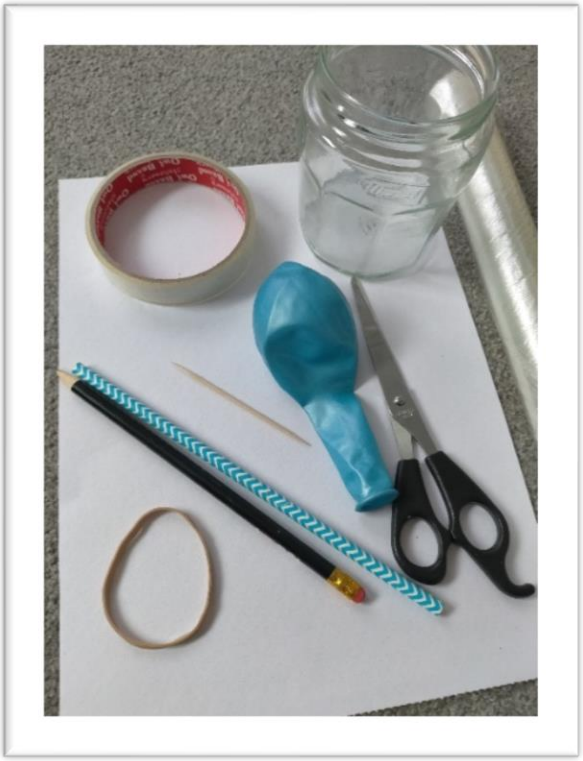
For your weather watch - use an outside thermometer or listen to weather forecast for the area where you live to get the current temperature.

Pressure

Air is light but there is a lot of it above us and it presses against everything it touches as gravity pulls it to Earth. Air pressure is measured by a barometer. The units used are millibars. The greater the reading, the higher the pressure.

Pressure is important as it can tell us about what kind of weather to expect; when the pressure is high, we can usually expect clear skies and light winds, when the pressure is low, we can usually expect wet and windy weather.

How to make a barometer



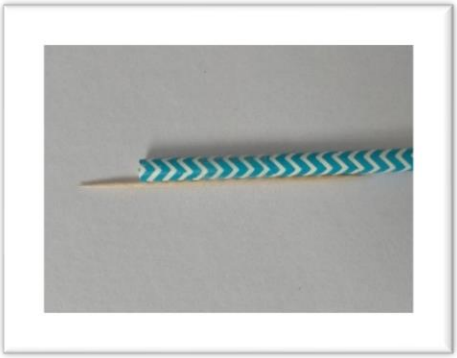
What you will need

- Jar or can
- Balloon or cling film
- Straw
- Toothpick
- Card or paper
- Rubber band
- Tape
- Scissors
- Pencil

Method

Tightly cover the top of the jar/can with cling film or a balloon by stretching it and using a rubber band to hold the plastic wrap in place. If you are using a balloon, blow it up first, let the air out and cut the narrow part off before stretching it over the jar.

Attach the toothpick to one end of the straw with glue or tape, then attach the other end of the straw to the centre of the balloon/cling film.



It's best to place your barometer close to a wall as you will need to attach some card or paper behind it and leave it there for the duration of your experiment, the toothpick will be your pointer. Mark on the card where the toothpick is so you have a point of reference for future observations. High pressure will make the plastic cave in and the straw go up. Low pressure will make the air in the jar push up on the balloon and the straw point down.

High pressure = straw pointing up

Low pressure = straw pointing down

The location of the pointer may change throughout the day, try to record your findings on your weather watch chart around the same time every day. Keep the barometer in the same place, preferably away from sunlight and radiators.