

WHAT IS A BAROMETER?

A barometer is a tool used to measure barometric pressure, the weight of the air pressing down on the Earth. This pressure, also called atmospheric pressure, changes depending on the weather. With high air pressure, we usually get clear skies and sunny weather. With low air pressure, it often means rain or storms are on the way. Making your barometer allows you to observe these pressure changes and predict the weather!

INSTRUCTIONS:

STEP 1: Cut off the neck of the balloon and stretch the remaining part over the jar's opening. Make sure it's tight and smooth across the top.

STEP 2: Wrap an elastic band around the mouth of the jar to keep the balloon in place, making sure it's airtight.

STEP 3: Tape one end of the straw to the center of the balloon. The other end should point out over the edge of the jar.

STEP 4: Place the jar somewhere stable where it won't be disturbed. Tape a piece of paper behind the straw to mark its position. Draw a line where the straw is pointing to start tracking changes.

STEP 5: Observe: Over the next few days, observe the movement of the straw as it goes up or down. Mark its position and record the weather conditions. When the straw rises, it indicates that air pressure is increasing, which usually means high pressure and good weather. When the straw lowers, air pressure decreases, which often signals a drop in barometric pressure and potentially stormy weather.

THE SCIENCE

Atmospheric pressure is constantly changing due to weather conditions. When barometric pressure rises, the air presses down more on everything, including your balloon. This causes the balloon to sink slightly and the straw to rise, signaling high pressure. High pressure usually brings clear and sunny weather. On the other hand, when air pressure decreases, the air inside the jar expands, making the balloon puff up and causing the straw to dip. Lower pressure is often linked to rainy or stormy weather.

Materials

Small glass jar or cup
Balloon
Scissors
Rubber band
Straw
Tape

