



BAROMETER

Create your own barometer to measure atmospheric air pressure.

Materials

- Glass jar or plastic bottle
- Balloon
- Rubber band
- Scissors
- Tape
- Straw
- Paper
- Pencil



Procedure

- Cut off the mouth and narrow tube of the balloon.
- Stretch the rounded part of the balloon over the opening of the jar, firmly stretching it, and secure it in place with the rubber band.
- Tape the straw on the edge of the jar with the end over the balloon to the center, and the rest hanging over the side.
- Draw a short ruler on the paper and tape it up next to the barometer, with the straw pointing to it.
- Measure how far the straw dips up or down to determine how high or low the atmospheric pressure is.

Results

When atmospheric pressure is higher than the air pressure in the bottle, it will push the balloon down and the straw will stick straight up. When atmospheric pressure is lower than in the bottle, the balloon will expand and inflate, causing the other end of the paperclip to dip down.

Why?

The air is made of gas particles. Low air pressure means that a specific area of the atmosphere has less air particles, giving them more room to move and making the atmosphere less stable. Higher air pressure means that there are more air particles in a specific area, less room for them to move, and more stability in the atmosphere. Less stability means a storm or drastic change is more likely.

To learn more about weather, check out the Pink Palace Museum's *Weather Whys* program.