

CLIMATE: BAROMETER

ULYSSES PHILOMATHIC LIBRARY SCIENCE AT HOME

THE STEP BY STEP

- 1 - Cover the top of a glass jar or cup with the balloon. Pull the balloon tight so that the surface (covering the opening of the jar or glass) is flat.
- 2 - Use the rubber band to secure the balloon to the cup or glass.
- 3 - Cut the end of the straw on an angle (to create a point) and tape the straw to the balloon "lid." Make sure the uncut end of the straw is taped to the center of the balloon "lid" with the cut end of the straw extending past the side of the jar or glass.
- 4 - Place the jar, topped with the balloon and straw, next to the sun/rain measuring stick so that the straw covers the measuring stick. As barometric pressure increases, the balloon will expand and the straw will move towards the sun. As barometric pressure decreases, the balloon will pull into the jar or glass and the straw will move towards the rain drop.

ADDITIONAL QUESTIONS

What is barometric pressure? Why does the balloon (and straw) move?

What does high barometric pressure mean for the weather? How about low barometric pressure?

How was barometric pressure used by early voyagers and scientists? How is it used today?

How can you tell if the barometric pressure is increasing or decreasing without a barometer? Are there things in your environment that will tell you this information?

ADDITIONAL RESOURCES

Measure the Pressure

<https://www.scientificamerican.com/article/measure-the-pressure/>

National Weather Service: Air Pressure

<https://www.weather.gov/jetstream/pressure>

Ted-ed: History of the Barometer

<https://www.youtube.com/watch?v=EkDhlzA-lwI>

Ted-ed: How Heavy is Air?

<https://www.youtube.com/watch?v=VDf00z8sMFw>

Tree House Weather Kids: Air Pressure

<https://web.extension.illinois.edu/treehouse/index.cfm>

Weather Folklore

<https://www.metlink.org/other-weather/miscellaneous-weather/weather-folklore/>