

Ask Me About Weather!

Today, an instructor from the Discovery Museum in Acton visited my classroom and led a program about weather. We learned to use the skills of a scientist to make observations, ask questions, make predictions, and test out our ideas. We experimented with changing air temperature and changing pressure. Ask me to tell you about the cloud created right in our classroom.



I was given a weather journal where I can record the temperature, humidity, wind speed and direction, precipitation, and cloud type. By observing weather over time I can identify patterns and even learn to predict what tomorrows' weather might be. I have special tools to help me to collect some of this information. Ask me to demonstrate how to use my cloud chart, wind anemometer card, and cobalt chloride test paper and help me add one more forecasting tool by following the directions below.

Make a Tin Can Barometer

A barometer is used to measure changes in air pressure. A change in air pressure often signals a change in weather conditions.

What you need:

- an empty coffee can
- large balloon
- rubber band
- drinking straw
- straight pin
- index card
- tape

What you do:

1. Cut the mouth of the balloon off and stretch the balloon over the open end of the coffee can.
2. Secure the balloon in place with a rubber band. The balloon should be taut and airtight.
3. Position the straw across the top of the balloon with just $\frac{1}{3}$ of the straw protruding beyond the edge of the can. Tape the straw to the center of the balloon.
4. Tape the straight pin to the end of the straw that hangs over the edge of the can.
5. Tape the index card to the can behind the straw.
6. As the atmospheric pressure changes the end of the straw will angle up or down. High air pressure will make the balloon dip down in the center and the straw go up. Low air pressure will make the balloon puff up and the straw go down. Record the movements of the straw on the index card. Compare this movement with the barometric pressure readings recorded for your local area at <http://www.weather.gov> and use these comparisons to calibrate the fluctuations you see.

