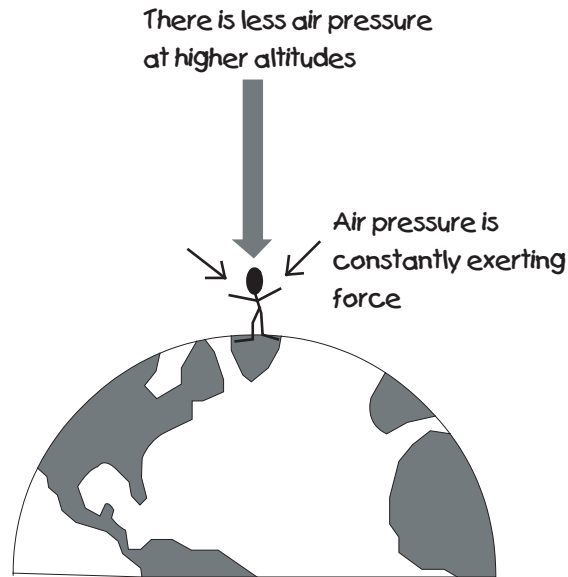


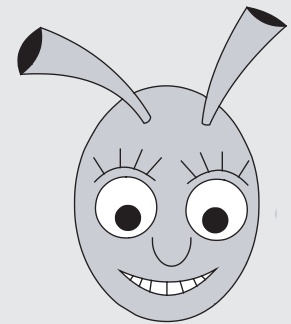
AIR PRESSURE

What is air pressure?

Air pressure, also known as atmospheric pressure, is the weight of tiny air molecules pressing down on the earth. It's hard to believe, but air has weight and takes up space. Air is just like any other object when it comes to weight. A car, a book, a computer, and an apple all have weight and take up space. However, you can see each of those objects. Air, on the other hand, is invisible. The best way to see air pressure in action is by blowing air into a balloon. As air molecules enter the balloon it expands (becomes larger). Blowing air into a balloon increases the air pressure inside of the balloon.



ACTIVITY



Use the **Weather Science Model** to make a barometer.

Why is air pressure important?

Air pressure is an important factor that affects our weather. Knowing the air pressure, along with other factors, helps weathercasters predict the weather. As a rule of thumb, when the air pressure is low, the weather is usually wet and cloudy. In areas of high pressure, the weather is often dry and clear. Weathercasters measure air pressure with a device called a barometer.

Points to remember

- Air pressure is the force of air molecules pressing down on the earth.
- Air pressure decreases as you go higher into the air.
- Air pressure is constantly exerting its force.
- Air pressure is an important factor that affects our weather.

Air Pressure and the Weather

Find the following information over the course of a five-day period. You can use the Internet, a local newspaper, or watch your local television weatherscaster to find the information.

DAY 1

Barometric Pressure: _____
Temperature: _____
Description of Weather: _____

DAY 2

Barometric Pressure: _____
Temperature: _____
Description of Weather: _____

DAY 5

Barometric Pressure: _____
Temperature: _____
Description of Weather: _____

DAY 3

Barometric Pressure: _____
Temperature: _____
Description of Weather: _____

DAY 4

Barometric Pressure: _____
Temperature: _____
Description of Weather: _____

After having tracked the barometric pressure, temperature, and weather over a five-day period, what conclusions can you make about your experiment?

Air Pressure in Action!

Experiment #1: Put both hands on your ribs. Take a deep breath then exhale.
Describe what happened:

Experiment #2: Blow air into a balloon and seal the balloon with your hand.
Describe what happened:

What is your conclusion for both of these simple experiments?
