

Barometer

How does a mercury barometer calculate the atmospheric pressure?

How does an aneroid barometer work?

What are some advantages that an aneroid barometer has over a mercury barometer?

Rain Gauge

Describe the dimensions of an official rain gauge?

Why does one inch in an official rain gauge actually measure only one - tenth of an inch of rain?

How is rainfall measured if it exceeds two inches?

Hygrometers

A hygrometer measures the humidity level in air and other gases. What is humidity?

Why can human hair (blond) be used to measure humidity using a mechanical hygrometer?

Anemometer (Wind Vane)

What are the two ways in which an anemometer (wind vane) measures the wind speed?

Thermometer

A thermometer really does not measure the temperature of something; rather it measures the temperature of itself. Explain this statement.

Name the four different types of thermometers that are explained on this link.

Explain how a liquid-in-glass thermometer works? What two substances are used in the thermometer's glass tube?

Explain how a deformation thermometer measures temperature?

Satellites

Why are satellites useful in predicting the weather?

What does a Doppler radar do that makes it so important in predicting weather?
