

Measuring Temperature

Name _____

Background: If you live in a place that has four distinct seasons, you experience a wide range of temperatures between winter and summer. During certain times of the year, temperature differences between night and day can also vary greatly. Temperature is a measure of how hot or how cold something is. In the case of weather, air temperature is measured. You can also measure the temperature of liquids such as the water in a swimming pool. The temperature of solids can be measured, as is the case with heat in an oven.

Most scientists measure temperature using a temperature scale called the Celsius scale. Most countries using the metric system also use the Celsius temperature scale. In the Celsius scale, water freezes at zero degrees Celsius, and boils at one hundred degrees Celsius which is easy to remember! What tool is used to measure temperature? That's right, a thermometer is a tool used to measure temperature. Traditional glass thermometers consist of a hollow glass tube with a small amount of liquid inside. The liquid expands and contracts going up and down the tube in response to changes in temperature. In this activity you will get some practice using a thermometer.

Materials: thermometer, container of ice, hot tap water, cold drink, and a liquid at room temperature.

Directions:

1. Your teacher will instruct you on how to use the thermometer. Be careful not to break a traditional glass thermometer. If the thermometer should break, immediately tell your teacher, and do not touch the remains of the broken glass.
2. Using the thermometer, carefully measure the temperature of each item provided by your instructor.
3. Record your temperature measurements in the data table below.

	Ice	Hot water	Cold drink	Liquid at room temperature	Air temperature
Temperature C°					