

# METRIC COMPARISON

Using the International System of Units



# TEMPERATURE

# TEMPERATURE

**Temperature** is the measurement of the warmth or coldness of an object or substance. The SI unit of temperature is the Kelvin which is represented by a capital **K**. The other metric unit for temperature is **degrees Celsius** which is represented by a **°C**.

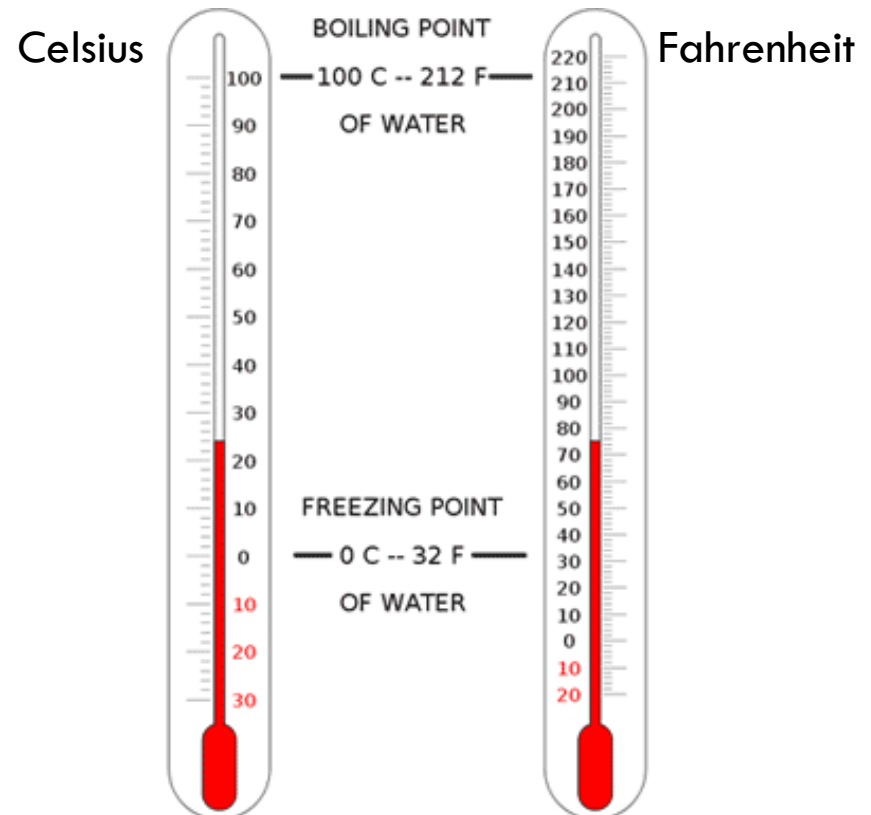
## Metric Units

$$0\text{ }^{\circ}\text{C} = 273\text{ K}$$

$$100\text{ }^{\circ}\text{C} = 373\text{ K}$$

**Which temperature is warmer?**

- A. 10 °C or 35 °F
- B. 100 °C or 150 °F
- C. 25 °C or 75 °F



# Temperature

100°C – (212°F)  
Boiling Water

76 °C – (169°F)  
Hot Coffee

50 °C – (122°F)  
Hot Bath

37 °C – (98.6°F)  
Body Temperature

30 °C – (86°F)  
Summer Day

21 °C – (70°F)  
Classroom

5 °C – (41°F)  
Late Fall/Early Spring

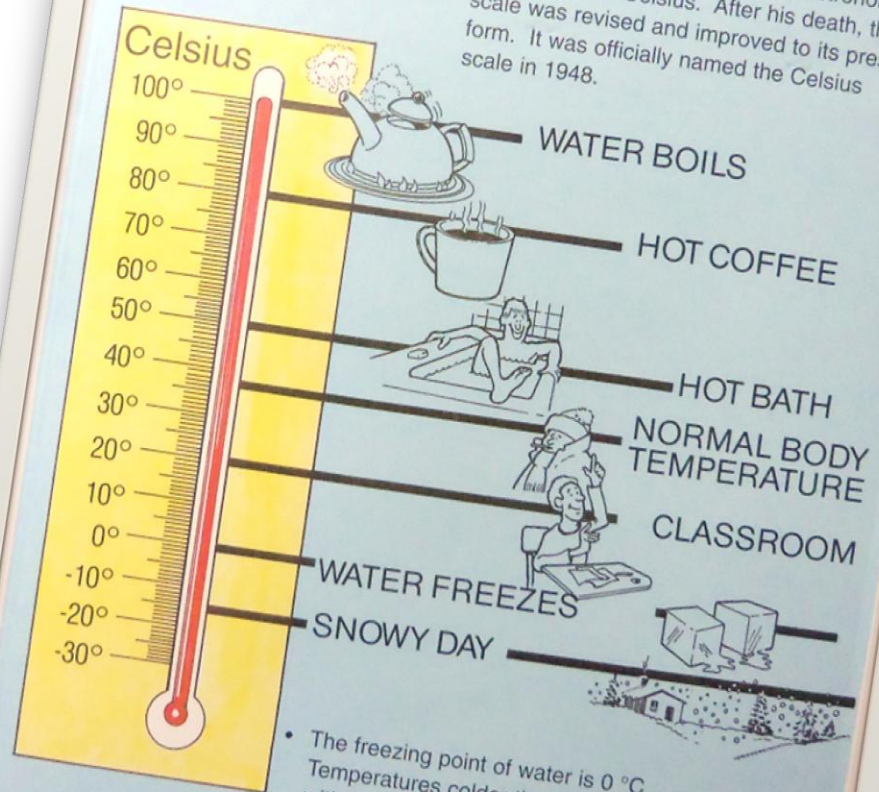
0°C – (32°F)  
Freezing Water

-12°C – (10°F)  
Winter Day

## Metric Measure of Temperature

The Celsius scale measures temperature.

On the Celsius scale, water freezes at 0° and boils at 100°. The Celsius scale was developed in 1742 by a Swedish astronomer named Anders Celsius. After his death, the scale was revised and improved to its present form. It was officially named the Celsius scale in 1948.

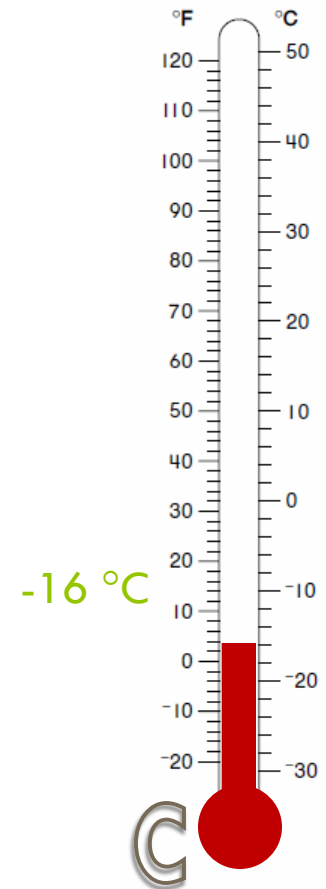
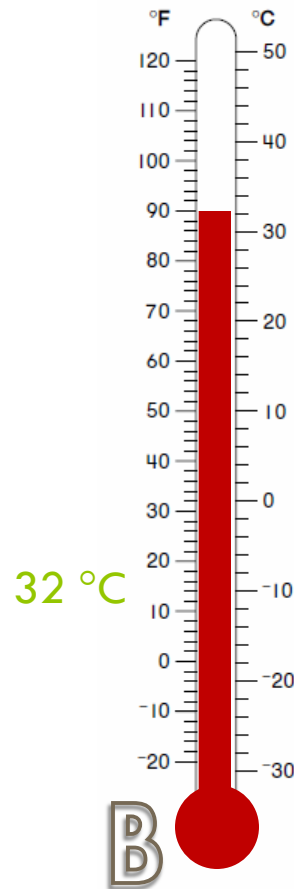
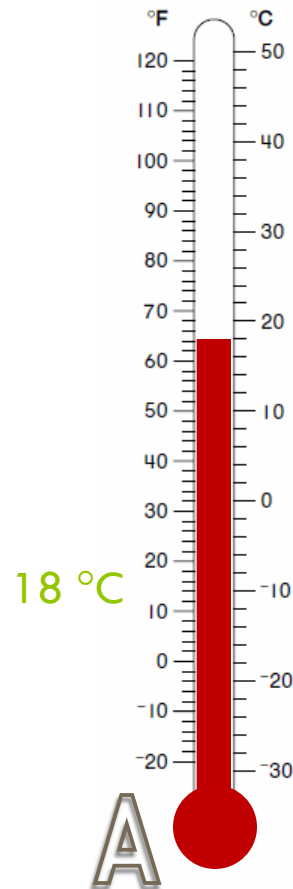


- The freezing point of water is 0 °C. Temperatures colder than 0° C are shown with a negative sign in front of them.
- The boiling point of water is 100° C. Temperatures hotter than 100° C are shown with numbers larger than 100.

# TEMPERATURE

## MEASURING TEMPERATURE

What is the temperature in  $^{\circ}\text{C}$ ?





TIME

# TIME

**Time** is the duration of an event. The basic SI unit of time is the **second** which is represented by a lowercase **s** or **sec**.

## Metric Units

60 seconds (sec) = 1 minute (min)

1 second (sec) = 1000 milliseconds (ms)

**Which is the correct time?**

A. 1 min 25 sec 33 m

B. 1 min 25.33 sec

C. 1 min 25.033 sec



# TIME

## MEASURING TIME

What is the time?



A

3.60 sec



B

1 min 27.81 sec



C

35.94 sec