

COMPARISONS...

- 100° Celsius is the same temperature as 212° Fahrenheit, and 0° Celsius is the same temperature as 32° Fahrenheit.
- Thus, there is a 100-degree difference between the freezing and boiling points on the Celsius scale, while on the Fahrenheit scale there is a 180-degree difference.
- Therefore, the relationship between the size of the degrees can be expressed as

$$\frac{C}{F} = \frac{100}{180} = \frac{5}{9}$$

This means that each degree Fahrenheit is $\frac{5}{9}$ of a degree Celsius.

- Since 0°C is equivalent to 32°F, we must subtract 32 from the Fahrenheit temperature before we multiply by $\frac{5}{9}$.
- Thus, the formula for converting degrees Fahrenheit to degrees Celsius is:

$$C = \frac{5}{9}(F - 32)$$

Roots of Temperature

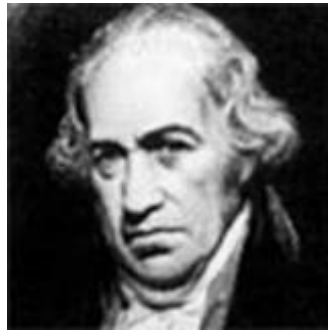
**Galileo
Thermoscope
1592**



**Galileo Galilei
(1564- 1642)**



**Fahrenheit Scale
1714**

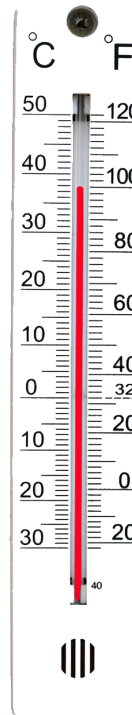


**Daniel Gabriel Fahrenheit
(1686 - 1736)**

**Celsius Scale
1742**



**Anders Celsius
(1701 - 1744)**



Converting Temperatures in °Celsius to °Fahrenheit and vice versa!

Formula for converting °C to °F:

$$^{\circ}\text{C} = \frac{5}{9} * (^{\circ}\text{F} - 32)$$

Formula for converting °F to °C:

$$^{\circ}\text{F} = \frac{9}{5} * ^{\circ}\text{C} + 32$$

$$C = \frac{5}{9}(F - 32)$$

$$F = \frac{9}{5} C + 32$$

Temperature Conversion Worksheet

Fahrenheit	=	Celsius	Comments
350°F	=	177°C	Standard cooking temperature
212°F	=	100°C	Water boils
170°F	=	77°C	Well done steak
98.6°F	=	37°C	Normal body temperature
68°F	=	20°C	Room temperature
32°F	=	0°C	Water freezes
-40°C	=	-40°C	School closures
-320.8°C	=	-196°C	Boiling point of nitrogen

To convert from Celsius to Fahrenheit:

$$T_F = \frac{9}{5} T_C + 32$$

You can convert a temperature from **Celsius to Fahrenheit** in 3 steps:

1. Take your Celsius temperature _____ and multiply it by 9.
_____ x 9 = _____
2. Take the answer from step one and divide it by 5.
_____ ÷ 5 = _____
3. Take the answer from step two and add 32 to it.
_____ + 32 = _____

To convert from Fahrenheit to Celsius:


$$T_C = \frac{5}{9} (T_F - 32)$$

You can convert a temperature from **Fahrenheit to Celsius** in 3 steps:

1. Take your Fahrenheit temperature _____ and subtract 32 from it.
_____ - 32 = _____
 2. Take the answer from step one and multiply it by 5.
_____ x 5 = _____
- Take the answer from step two and divide it by 9.
_____ ÷ 9 = _____

HOMEWORK...

Do 10 of these...

 Worksheet - Converting Temperatures.pdf

 Worksheet - Converting Temperatures.docx

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Attachments

Worksheet - Converting Temperatures.docx

Worksheet - Converting Temperatures.pdf