|  |
| --- |
| **Temperature Scales - You probably refer to temperature every day. Be sure about the scale you are using.** |
| Temperature Scales, ThermostatTemperature is the level of heat in a gas, liquid, or solid. Three scales are commonly used for measuring temperature. The Celsius and Fahrenheit scales are the most common. The Kelvin scale is primarily used in scientific experiments.**Celsius Scale -** The Celsius scale was invented in 1742 by the Swedish astronomer, Anders Celsius. This scale divides the range of temperature between the freezing and boiling temperatures of water into 100 equal parts. You will sometimes find this scale identified as the centigrade scale. Temperatures on the Celsius scale are known as degree Celsius (ºC).**Fahrenheit Scale -**The Fahrenheit scale was established by the German-Dutch physicist, Gabriel Daniel Fahrenheit, in 1724. While many countries now use the Celsius scale, the Fahrenheit scale is widely used in the United States. It divides the difference between the melting and boiling points of water into 180 equal intervals. Temperatures on the Fahrenheit scale are known as degree Fahrenheit (ºF).**Kelvin Scale -** The Kelvin scale is named after William Thompson Kelvin, a British physicist who devised it in 1848. It extends the Celsius scale down to absolute zero, a hypothetical temperature characterized by a complete absence of heat energy. Temperatures on this scale are called Kelvins (K).**Converting Temperatures**It is sometimes necessary to convert temperature from one scale to another. Here is how to do this.1. Temperature Scales, CalculatorTo convert from ºC to ºF, use the formula:  ºF = ºC x 1.8 + 32.
2. To convert from ºF to ºC, use the formula:  ºC = (ºF-32) ÷ 1.8.
3. To convert from K to ºC, use the formula:  ºC = K – 273.15
4. To convert from ºC to K, use the formula: K = ºC + 273.15.
5. To convert from ºF to K, use the formula: K = 5/9 (ºF – 32) + 273.15.
6. To convert from K to ºF, use the formula:  ºF = 1.8(K – 273.15) + 32.

**Comparing Temperatures**Here are some common comparisons between temperatures on the Celsius and Fahrenheit scales.

|  |  |  |
| --- | --- | --- |
| TEMPERATURE | ºC | ºF |
| Boiling point of water | 100 | 212 |
| Freezing point of water | 0 | 32 |
| Average human body temperature | 37 | 98.6 |
| Comfortable room temperature | 20 to 25 | 68 to 77 |

 |