

What is the SI unit of temperature?

- A. Celsius
- B. Fahrenheit
- C. Kelvin
- D. Rankine

Show Answer...

Correct Answer: C (Kelvin)

Explanation:

Temperature is a physical quantity that expresses the degree of hotness or coldness of an object. The SI unit of temperature is the Kelvin (K), named after the British physicist William Thomson, also known as Lord Kelvin.

The Kelvin scale is an absolute temperature scale, meaning that it starts at absolute zero, the temperature at which all substances have zero thermal energy. One Kelvin degree is equal in magnitude to one Celsius degree, but the Kelvin scale does not use negative numbers.

The Celsius ($^{\circ}\text{C}$) and Fahrenheit ($^{\circ}\text{F}$) scales are also commonly used to measure temperature, but they are not part of the SI system of units. The Celsius scale is based on the freezing and boiling points of water, while the Fahrenheit scale is based on the freezing and boiling points of a mixture of water, salt, and ice.

In summary, the SI unit of temperature is the Kelvin (K), an absolute temperature scale that starts at absolute zero. The Celsius ($^{\circ}\text{C}$) and Fahrenheit ($^{\circ}\text{F}$) scales are commonly used but are not part of the SI system of units.