

# SI MEASUREMENT SYSTEM

The International System of Units (SI) is made up of 7 base units, featured on this chart with their Measurement League counterparts. The SI, commonly known as the metric system, is easy to use.

## KILOGRAM (kg) MASS

The kilogram is the unit of mass, equal to the mass of the international prototype of the kilogram (IPK).

## KELVIN (K) TEMPERATURE

The kelvin, unit of thermodynamic temperature, is the fraction  $\frac{1}{273.16}$  of the thermodynamic temperature of the triple point of water.

## CANDELA (cd) LUMINOUS INTENSITY

The candela is the luminous intensity, in a given direction, of a source that emits monochromatic radiation of frequency  $540 \times 10^{12}$  hertz and that has a radiant intensity in that direction of  $\frac{1}{683}$  watt per steradian.

## AMPERE (A) ELECTRIC CURRENT

The ampere is that constant current which, if maintained in two straight parallel conductors of infinite length, of negligible circular cross section, and placed 1 meter apart in vacuum, would produce between these conductors a force equal to  $2 \times 10^{-7}$  newton per meter of length.

## METER (m) LENGTH

The meter is the length of the path traveled by light in vacuum during a time interval of  $\frac{1}{299\,792\,458}$  of a second.

## SECOND (s) TIME

The second is the duration of 9 192 631 770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the cesium 133 atom.

## MOLE (mol) AMOUNT OF SUBSTANCE

The mole is the amount of substance of a system which contains as many elementary entities as there are atoms in 0.012 kilogram of carbon 12.



## PREFIXES



SI symbols are the same worldwide, regardless of the spelling, language, or alphabet. Prefix symbols are used with a unit symbol to represent smaller or larger units by factors that are powers of 10.

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