# 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 ½73.16 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 x 10<sup>12</sup> hertz and that has a radiant intensity in that direction of ½83 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 x 10<sup>-7</sup> 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

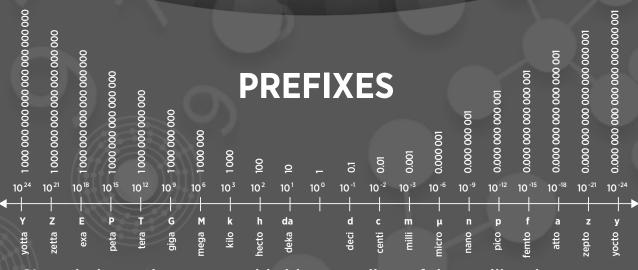
The second is the duration of 9 192 631 770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the cesium 133 atom.

## 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.

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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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