

Physical Science Reference Table

	Prefix	Symbol	Meaning	Examples of usage
Multiples	kilo-	k	1,000	One kilojoule is 1,000 joules. There are 1,000 joules in one kilojoule, so 1,000 J = 1 kJ.
	mega-	M	1,000,000	One megawatt is 1,000,000 watts. There are 1,000,000 watts in one megawatt, so 1,000,000 W = 1 MW.
Fractions	centi-	c	1/100	One centimeter is 1/100 of a meter. There are 100 centimeters in one meter, so 100 cm = 1 m.
	milli-	m	1/1,000	One milligram is 1/1,000 of a gram. There are 1,000 milligrams in one gram, so 1,000 mg = 1 g.
	micro-	μ	1/1,000,000	One microliter is 1/1,000,000 of a liter. There are 1,000,000 microliters in one liter, so 1,000,000 μL = 1 L.

Conversion Factors

U. S. Customary Unit Factors

5,280 ft = 1 mi

3 ft = 1 yd

60 s = 1 min

60 min = 1 hr

24 hr = 1 day

365 dy = 1 year

3,600 s = 1 hr

SI System Factors

1,000 cm³ = 1 L

1,000,000 cm³ = 1 m³

1,000 L = 1 m³

1 mL = 1 cm³

Inter-System Factors

2.54 cm = 1 in

0.3048 m = 1 ft

1.609 km = 1 mi

1,609 m = 1 mi

3.785 L = 1 gal

Unit	Symbol	Quantity
meter	m	distance
kilogram	kg	mass
second	s	time
ampere	A	electric current
kelvin	K	temperature
candela	Cd	luminous intensity
mole	mol	amount of substance

Table 8.1. The seven base units in the SI System.

Unit	Symbol	Quantity
joule	J	energy
newton	N	force
cubic meter	m ³	volume
watt	W	power
pascal	Pa	pressure

Unit Symbols

U. S. Customary System Symbols

mi = mile

ft = foot

yd = yard

in = inch

yr = year

dy = day

hr = hour

min = minute

s = second

gal = gallon

SI System Symbols

kg = kilogram

m = meter

s = second

L = liter (not an official SI unit)

Multiples	Prefix	deca-	hecto-	kilo-	mega-	giga-	tera-	peta-	exa-	zetta-	yotta-
	Symbol	da	h	k	M	G	T	P	E	Z	Y
	Factor	10	10 ²	10 ³	10 ⁶	10 ⁹	10 ¹²	10 ¹⁵	10 ¹⁸	10 ²¹	10 ²⁴
Fractions	Prefix	deci-	centi-	milli-	micro-	nano-	pico-	femto-	atto-	zepto-	yocto-
	Symbol	d	c	m	μ	n	p	f	a	z	y
	Factor	1/10	1/10 ²	1/10 ³	1/10 ⁶	1/10 ⁹	1/10 ¹²	1/10 ¹⁵	1/10 ¹⁸	1/10 ²¹	1/10 ²⁴