

**Measurement and Units**

<b>mass</b>	kilogram	kg
<b>length</b>	meter	m
<b>temperature</b>	Kelvin	K (absolute scale)
	Celsius	C (metric)
<b>amount of matter</b>	mole	mol

**Derived units of measure:**

	<b>SI units</b>	<b>other common units</b>		
<b>Area</b>	m <sup>2</sup>			
<b>Volume</b>	m <sup>3</sup>	cm <sup>3</sup>	L	mL (note: 1 mL = 1 cm <sup>3</sup> )
<b>Density</b>	kg/m <sup>3</sup>	g/cm <sup>3</sup>	g/mL	
<b>Force</b>	N (kg·m/s <sup>2</sup> )			
<b>Pressure</b>	Pa (N/m <sup>2</sup> )	atm	mmHg	
<b>Energy</b>	J (N·m or kg·m <sup>2</sup> /s <sup>2</sup> )	cal	Cal	

**Prefixes for Multiples of SI Units**

<b>factor</b>	<b>Prefix</b>	<b>symbol</b>
1,000,000,000 = 10 <sup>9</sup>	giga	G
1,000,000 = 10 <sup>6</sup>	mega	M
1,000 = 10 <sup>3</sup>	kilo	k
100 = 10 <sup>2</sup>	hecta	h
10 = 10 <sup>1</sup>	deka	da
0.1 = 10 <sup>-1</sup>	deci	d
0.01 = 10 <sup>-2</sup>	centi	c
0.001 = 10 <sup>-3</sup>	milli	m
0.000 001 = 10 <sup>-6</sup>	micro	μ
0.000 000 001 = 10 <sup>-9</sup>	nano	n
0.000 000 000 001 = 10 <sup>-12</sup>	pico	p

**You need to memorize this information!**