

A world map with a light blue background. The United States, including Alaska and Hawaii, is highlighted in red. In East Asia, China, South Korea, and Japan are also highlighted in red. The rest of the world's landmasses are shown in a light grey color with white outlines for countries and continents.

# Metric System Review

**Mass** – Mass is a measure of the amount of matter in an object.

*(Weight is a measurement of how much gravity is pulling on that object.)*

Standard Unit of mass is the **gram**.

Mass will be measured in our class using a triple beam balance.

Milligrams (mg)

grams (g)

kilograms (Kg)



**Length** – Length is a measurement of distance or dimension.

Standard unit of length is the **meter**.

Length will be measured in our class using a meter stick or ruler.

millimeters (mm)

centimeters (cm)

meters (M)



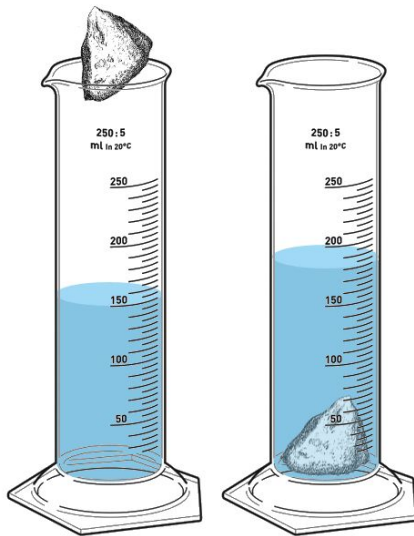
**Volume** – Volume is the amount of space an object takes up.

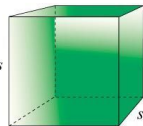
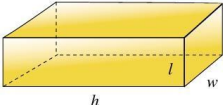
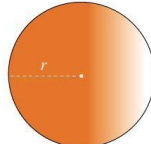
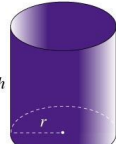
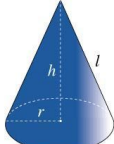
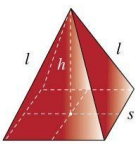
Standard unit of volume is **liter**.

Volume will be measured in our class using graduated cylinder or beaker.

Milliliters (ml)

liter (L)



<b>VOLUME</b>	
<i>Formulas</i>	
<b>CUBE</b>  $V = s^3$	<b>RECTANGULAR PRISM</b>  $V = lwh$ or $V = Bh$
<b>SPHERE</b>  $V = \frac{4}{3} \pi r^3$	<b>RIGHT CIRCULAR CYLINDER</b>  $V = \pi r^2 h$
<b>RIGHT CIRCULAR CONE</b>  $V = \frac{1}{3} \pi r^2 h$	<b>RIGHT SQUARE PYRAMID</b>  $V = \frac{1}{3} s^2 h$

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**Temperature** – Temperature measures how hot or cold an object is.

Standard of unit of temperature is Celsius.

Temperature will be measure in our class using a thermometer.

### Comparison to Degrees Fahrenheit

Boiling point of water	100 °C	212 °F
Freezing point of water	0 °C	32 °F
Average human body temp	37 °C	98.6 °F
Average room temp	22 °C	72 °F

CELSIUS TO FAHRENHEIT

$$T_F = \left(\frac{9}{5}T_C\right) + 32$$

FAHRENHEIT TO CELSIUS

$$T_C = \frac{5}{9}(T_F - 32)$$

Why is the metric system better to use in science than the American system?

1- It is more accurate

2 – units of 10 are easy to calculate

<b>K</b>	<b>H</b>	<b>D</b>	<b>L/M/G</b>	<b>d</b>	<b>cm</b>	<b>m</b>
Kilo	Hecta	Deca	Liter Meter Gram	deci	centi	mili

## Metric Conversion Chart

