

## METRIC UNITS OF MEASURE

**GRAM – Weight** 1 gram = .035 ounces. 454 grams = 1 pound.

**LITER – Volume** 1 liter = .946 quart. 2.2 liters = 1 quart.

**METER – Length** 1 meter = 39.37 inches

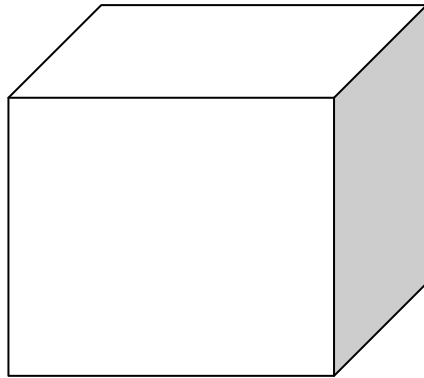
## PREFIXES (multipliers)

Nano – 1/1,000,000,000	Basic Unit
Micro – 1/1,000,000	Deka – 10
Milli – 1/1000	Hecto – 100
Centi – 1/100	Kilo – 1000
Deci – 1/10	Mega – 1,000,000
Basic Unit	Giga – 1,000,000,000



## **THE RELATIONSHIP BETWEEN UNITS OF METRIC MEASURE**

1 cubic centimeter of water at 4° Celsius weighs 1 gram



Each side is 1 Centimeter Long (1 cubic centimeter)

1 cubic centimeter = 1 milliliter

1 cc = 1 ml

### **COMMON ABBREVIATIONS AND TERMS:**

**cc** – cubic centimeter

**ml** – milliliter

**micron** – micrometer

**mm** - millimeter

## TEMPERATURE MEASUREMENT

### Celsius (or Centigrade) vs. Fahrenheit

	Celsius	Fahrenheit
Freezing point of water	0° C	32° F
Boiling point of water	100° C	212° F

### Conversion Formulas

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 9/5) + 32$$

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times 5/8$$

C° - There are 100 degrees between the freezing and boiling points.

F° - There are 180 degrees between the freezing and boiling points.

## WHY WE NEED METRIC UNITS

Alcohol breath testing measures alcohol breath results in Grams of ethyl alcohol per 210 Liters of breath or g/210L. The intoxilyzer measures breath volume in liters.

Simulators (also called Alcohol Reference Devices) use the Celsius scale.