Conversions

Learning Target:

The students will learn how to convert within the Metric system and from the Metric system to the English measuring system.

**Metric to Metric:**

When converting within the Metric System, as long as you know what the prefixes mean, you can make these by moving the decimal to the left or the right.

Example: 250 mg (milligrams) = \_\_\_\_ g (grams)

**Metric Prefixes:**

# Kilo Hecto Deka Base deci centi milli

(1000) (100) (10) (1) (.1) (.01) (.001)

250 mg = .250 g

\*\*Move the old decimal 3 places to the left, because you moved 3 prefixes to the left.

**English to Metric:**

Conversions that are made from the English system to the metric system is done through a process known as: Dimensional Analysis.

Dimensional analysis: is a technique used to convert units by multiplying the measurement by several fractions (called conversion factors) that are equal to 1.

Example: 250 Kg = \_\_\_\_\_\_\_\_\_\_\_\_\_ Lbs. (pounds)

1st: make the measurement into a fraction by putting over 1.

250 Kg

1

2nd: Make a conversion factor out of two equal measurements and multiply it by the previous measurement.

250 Kg 2.2 Lb

1. 1 Kg

3rd: Make sure the old units cancel; the desired units do not cancel and multiply the fractions together.

250Kg 2.2 Lb = 550 Kg

1 1Kg