You will turn in all work to me, Ms. Mitchell, on the third day of school.

Thank you. It is going to be a great year! My email is: Janice.mitchell@clayton.k12.ga.us

1.Copy this handout. Yes, handwrite this and Memorize the metric units and the sentence to remember the metric prefixes.

Metric Units

Quantity	Unit	Abbreviation
Length	Meter	m
Mass	Gram	g
Volume	Liter	l

Behind every number, there is an invisible decimal. Therefore, 87 can be written as 87. 2398 can be written as 2398. 145 can be written as 145.

Sentence to remember the metric prefixes:
***K**ing **H**enry **d**ied **by** **d**rinking **c**hocolate **m**ilk.*

By indicates the root words of **gram, meter, liter, second**. That means you may add one of the prefixes to: gram, meter , liter or second.

Metric Prefixes

Kilo k 1000 hecto h 100 deca da 10

Deci d 0.1 centi c 0.01 milli m 0.001

To use, write : K H D **B** D C M

Sample problem:
13 kilograms = ? grams. Start on the k. Step or move to the right to the letter h, then d and stop on b where gram is. *Remember the root words are on the base or b*
That was 3 steps to the right. Rewrite 13 kilograms as 13**.** kilograms by adding the decimal after the 13. Now, move the decimal 3 places to the right and fill or add a zero to every place you moved right. 13. becomes 13000. Therefore 13 kilograms =13000 grams

2.Copy this handout. Yes, handwrite this and know the difference between an independent and Dependent Variable.

Independent and Dependent Variables

Independent variable: What the scientist changes or what changes on its own.

Dependent variable: What is being studied/measured.

The independent variable (sometimes known as the *manipulated variable*) is the variable whose change isn't affected by any other variable in the experiment

The dependent variable (sometimes known as the *responding variable***) is what is being studied and measured in the experiment.** It's what changes as a result of the changes to the independent variable.

An easy way to think of independent and dependent variables is, when you're conducting an experiment, **the independent variable is what *you* change, and the dependent variable is what changes because of that.** You can also think of the independent variable as the cause and the dependent variable as the effect.

Experiment 1: You're interested in how rising lake temperatures impact algae life, so you design an experiment that measures the number of algae in a sample of water taken from a specific lake site under varying temperatures.

Independent Variable: Lake temperature
Dependent Variable: The number of algae in the sample

Experiment 2: You want to see which type of fertilizer helps plants grow fastest, so you add a different brand of fertilizer to each plant and see how tall they grow.

Independent Variable: Type of fertilizer given to the plant
Dependent Variable: Plant height

Independent and dependent variables always go on the same places in a graph. **The independent variable always goes on the x-axis, or the horizontal axis. The dependent variable goes on the y-axis, or vertical axis.**

Great work Scholar!