**Study Guide for Chapters 1 and 2**

\*Know vocabulary words and definitions listed on pp. 26 and 63 in textbook for both Chapters and the 50 common element names and symbols. \*

Chapter 1:

* Distinguish between intensive and extensive properties and provide examples of each.
* Distinguish between pure substances and mixtures.
* Know the properties of a pure substance that distinguish it from a homogeneous mixture.
* Distinguish between physical changes, chemical changes, physical and chemical property provide and examples of each.
* What scientists working in each of the branches of chemistry do and what they work on
* The definition of matter and examples.
* Basic structure of the Periodic Table
	+ How it is arranged
	+ Where the metals, non-metals, and metalloids are in the table
		- Properties of metals, non-metals, and metalloids
	+ Names of the parts of the table – rows, columns, etc.
* Know the common Elements we have been studying and taking quizzes on in class
* Characteristics of the states of matter
* Describe each state of matter based on behavior of particles and arrangement
* Observed properties (shape, volume)

Chapter 2:

* Know the purpose of the scientific method
* The difference between qualitative and quantitative observations and examples of each.
* The difference between hypotheses, theories, and models.
* How to name and use SI units for length, mass, time, volume and density (reference sheet)
* The prefixes for SI units and their meaning
* The difference between mass and weight.
* How to perform density calculations (given any two of the following quantities, be able to find the third: mass, volume, density).
* How to use a statement of unit equality to create a conversion factor and use it to convert one unit into another – dimensional analysis showing all work
* The difference between accuracy and precision.
* How to determine the number of significant figures in a measurement (certain and uncertain digits)
* How to convert measurements into scientific notation.
* How to apply the rules governing the use of addition, subtraction, multiplication, and division with significant figures.

\*Read over notes and chapter reading to help review and re-visit concepts. \*

Remember this is just a guide! We have practiced, read, discussed, reviewed, performed labs, and covered all concepts on test in a variety of ways in and out of class!