**Unit 3 Test Review: The Atom and The Periodic Table**

**The Atom:**

* What did each of the following people discover regarding the atom and what process did they use to discover it:
	+ J.J. Thompson (what “instrument” did he use)
	+ Rutherford
	+ Bohr
	+ Dalton
* Know the location and how to determine the quantity of each of the following:
	+ Protons
	+ Electrons
	+ Neutrons
* What are isotopes?
* How do you determine if you have an isotope?
* How is the atomic mass (amu – atomic mass units) calculated on the periodic table?
* How do you determine how many valence electrons an atom has?
* What subatomic particle changes to produce an ion?
* How do you determine the number of electrons you have with an ion?

**The Periodic Table:**

* What did each of the following people discover regarding the periodic table and what process did they use to discover it:
	+ Moseley
	+ Mendeleev
* Know how to calculate frequency, wavelength, and energy
* Know the relationship between frequency and wavelength
* Know the location and properties of each of the following groups:
	+ Alkali Metals
	+ Alkaline Earth Metals
	+ Halogens
	+ Noble Gasses
	+ Transition Metals
* Know why the elements are grouped the way they are
* Know commonalities and trends of the periodic table