Unit 4 Study Guide (**TEST NOV 22)**

Topics:

* Know the families of elements and their location on the periodic table
* Be able to list the polyatomic ions with formulas and names
* YOU MUST KNOW THE OXIDATION NUMBERS FOR EACH GROUP
* Ionic compounds:
  + Be able to put the formulas together
  + Name them
  + Write them with polyatomic ions
  + Write the names with transition metals
  + Draw the Lewis dot diagrams for them
  + What happens to the electrons
  + What they are between (metal and non metal)
* Covalent compounds:
  + How to name them
  + What happens to the electrons
* Know what a metallic bond is and what an alloy is
* Be able to draw Lewis structures for any compound (including ions and expanded valence)
* Know what a resonance structure is
* Be able to determine the shape of a molecule based on the VSEPR theory
* Know what polarity means and what is happening to the electrons in a polar bond and tell if a molecule is polar or not

Practice Problems:

* Pg. 214 #’s 2-4, 6
* Pg. 217 #’s 7-11
* Pg. 224-225 #’s 19-28
* Pg. 227 #’s 35-36, 38-39
* Pg. 244 #’s 1-5
* Pg. 247 #’s 6-9, 12
* Pg. 250-251 #’s 18-29
* Pg. 255 #’s 30-34
* Pg. 262 #’s 49-53
* Pg. 266 #’s 60-63