

# Welcome to AP Chemistry 2010-2011!

## *Summer Assignment*

**Due the first day of class, August 2010**

Use the AP Chemistry text, Zumdahl (7<sup>th</sup> edition), to review and answer the questions listed below. All the answers are listed in the back. You need to know formula and equation writing (this includes memorizing the polyatomic ions), basic atomic theory and periodic table, significant digits, and enough stoichiometry to predict amounts in chemical reactions. The suggested problems should be considered to be the bare minimum for review and practice of chapters 1-3. Show all work with units. Commit the formulas and charges on the ion reference sheet to memory. Your AP Chemistry periodic table will not have names so you may want to memorize them now. Expect a quiz during the first week.

- Chapter 1      Significant digits  
                  Dimensional Analysis Techniques  
                  Density  
                  Percent Error  
                  # 8, 10, 13, 19, 25, 35, 46, 51, 63
- Chapter 2      Formula Writing-Ionic and Covalent  
                  Nomenclature  
                  Periodic Table – basic trends and families  
                  Mono and Polyatomic Ions  
                  Atomic Structure  
                  # 5, 9, 15, 19, 28, 32, 39, 51
- Chapter 3      Mole conversions  
                  Equation balancing  
                  Stoichiometry  
                  Theoretical and Percent Yield  
                  # 2, 11, 15, 16, 27, 43, 50, 57, 67, 71, 76
- Chapter 18     Nuclear Decay  
                  Balancing fission and fusion reactions  
                  Alpha, Beta, Gamma Decay  
                  # 2, 11, 14

*Good luck and have a great summer.*