**Mag Chem Final Exam Review Tips**

1. Go over the Review Sheets on my blog and any PPts you need for reviewing concepts. Some examples: chem vs physical properties; chem vs physical changes; extensive vs intensive; accurate vs precise; steps of sci. method; waves (freq, w.l., amplitude); STP conditions; names of groups and properties (ex- alkali metals- 1 val e-); Rutherford’s gold foil; Bohr model; writing formulas; naming compounds; endothermic vs exo; ionic vs molecular; polar vs nonpolar; H bond vs van der Waals; mixture vs solution vs suspension; know your polyatomic ions!; naming acids; naming ionic comp w/ transition metal; diatomic molecules; phases of matter and properties; types of reactions (SD, DD, Syn, Decomp); factors that affect equilibrium (and how it shifts the rxn); factors that increase the rate of rxn.; real gas vs ideal gas; KMT (the graph that shows heat vs temp for phase changes); difference in heat and temp; intramolecular force vs intermolecular; saturated, unsat, supersat solution; properties of acids and bases; Arrhenius vs BL theories; pH vs pOH; conjugate acid and base
2. Make sure you go over working problems in the following areas:
   1. Density
   2. Sig figs
   3. Electron Config, orbital diagrams, Hund’s Rule
   4. Stoichiometry: Ex- mass-mass, mass-volume, limiting reagent
   5. Lewis dots and molecular shapes (geometry)
   6. Periodicity: atomic radius, e-negativity, IE, #of valence e-
   7. Percent yield
   8. Gas Laws (Boyles, Charles, Gay Lussac, Avagadro’s, Combined, Ideal)
   9. Heat problems (\*know specific heat formula)
   10. Actual yield vs Theoretical yield
   11. Avagadro’s #
   12. Molarity
   13. Net Ionic Equations (Remember, only (aq) may ionize)
   14. Empirical formulas
   15. Nuclear reactions (Half life; Alpha, Beta, Gamma)
   16. Chemical Reactions (you will be given a reactivity chart to determine if the rxn will occur or not)
   17. Isotopes and calculating avg atomic mass
   18. Solubility Rules (you will get a sheet. Be able to apply it)
   19. Calculating energy of a photon, if given the frequency