**CH 10:  Intermolecular Forces**

1.  Distinguish between Inter and Intra Molecular Forces

2.  Use the concept of IMF to explain physical properties of liquids and solids.

3. Define, Explain and Apply:

  Ion- Dipole Forces

Dipole-Dipole Forces

London Dispersion Forces

Hydrogen Bonding

4.  Properties of Liquids:

Viscosity, Surface Tension, Cohesive and Adhesive Forces, Capillary action

Phase Changes (review): heat of fusion, heat of vaporization

Critical Temperature and Presure

Vapor Pressure

5.  Read and Interpret Phase Diagrams adn Heating Curves

5. Types of Bonding in Solids:

Molecular

Covalent-network

Ionic

Metallic

**Chapter 11: Properties of Solutions**
1.  Convert between M, m, N, Mass % and Mole Fraction solution concentration expressions.

2.  Explain exothermic and endothermic heats of solution.

3.  List the factors that affect solubility (Henry's Law) and rate of solution formation.

4.  Compare and contrast unsaturated, saturated, and supersaturated solutions.

4.  Explain how the vapor pressure of a solution compared with the vapor pressure of a pure solvent.

5.  Colligative properties --> Be able to explain the impact of a solute upon freezing point, boiling point, and osmostic pressure.

6.  Apply colligative properties equations to solve for change of boiling and freezing points, molality of solutions, molar mass of solutes, and osmotic pressures.

7.  Apply Raoult's Law.  Interpret a negative or positive deviation from Raoult's Law.