

- Study the guide for first trimester exam
- All handouts (problems as well as regents practice questions) are important
- Review your homework assignments
- Be able to understand chemical reactions
- Balance chemical equations
- Know types of chemical reactions: combustion, synthesis, decomposition, double displacement
- Know how to use activity series
- Writing net ionic equations (very important): You must remember that all group (I) elements and nitrates and NH_4^+ compounds are soluble (the rest will be given to you)
- Stoichiometry of all types: know how to find moles, grams and number of atoms
- Limiting reactants and their calculation
- Actual and percent yield problems
- Heat, temperature and their definitions and differences
- Definition of enthalpy and consequences of enthalpy change
- Calorimeter, Hess's law and calculation of enthalpy change from multi-step reactions
- Calculation of enthalpy change using enthalpies of formation
- Definition of entropy and consequences of entropy change
- Calculation of entropy change using entropies of formation
- Gibb's free energy change and its consequences
- Calculation of Gibb's free energy from energies of formation
- Using Gibb's formula to relate enthalpy, entropy and Gibb's free energy
- Everything on state changes and intermolecular forces (READ SECTIONS 1 & 2 of chapter 11 and review your notes)