# Unit 3 Study Guide

You will be taking a test on the first two chapters in unit 3. We will cover the second half of unit 3 after Christmas break.

**Chapter 7**

* Chemical Bond
* Cation vs. Anion
* Ionic bond
* Ionic compound
  + Know the model
* Crystal lattice
* Electrolyte
* Formula unit
* Monatomic ion
* Polyatomic ion
  + You may be asked to list/identify a polyatomic ion
* Electron sea model
* Delocalized electron
* Metallic bond

**Chapter 8**

* Covalent bond
  + Single, double, triple bonds
    - Know how many electrons are actually being shared
* Lewis structure
* Endothermic vs. Exothermic reaction
* Structural formula vs. Lewis formula
* Know why some elements violate the octet rule
* Polar covalent bonds
  + Electronegative Elements – How does it affect a covalent bond

**Naming**

* Type I
* Type II
* Type III
* Naming Acids

**Chapter 9**

* Chemical reactions
  + Know the 5 types
* Know how to balance a chemical equation
* Aqueous solution
* Solute vs. solvent
* Complete ionic equation
* Spectator ion
* Net ionic equation

**General**

* Know how to use a periodic table to find the charges of elements
* Know how to write the formula of a compound so that it is electrically neutral
  + I.e. You want to add as many of each as necessary in order to make the charges equal zero