**Chem. Unit 3 Study guide**

Write at least one page that covers the concepts below.

1. Know what families and periods are on the periodic table.
2. Know what flame tests are for.
3. Know how to carry out an “ion exchange” in order to write a chemical equation.
4. Be able to identify a precipitate if you are given the data needed to do so (blue and yellow precipitate).
5. Know what pH is for and what it measures.
6. Know what synthesis, decomposition, single replacement and double replacement reactions are.
7. Know what equilibrium is and be able to give examples of it.
8. Know the Conservation of Mass law and the Law of Definite proportions.
9. Know what percent composition is and how to calculate it.
10. Know how internal combustion work in general and that there are several reactions that are involved in this process.
11. Know what the Mass defect theory is and how it is related to fusion.
12. Know what valence electrons are and how to draw Lewis Dot diagrams.