**Unit 2: Chemical Reactions Test Topics**

1. Naming – ionic, covalent, polyatomic, oxyanions (per\_ate, \_ate, \_ite, hypo\_ite), hydrates, binary acids (hydro\_ic acid), oxyacids (per\_ic acid, \_ic acid, \_ous acid, hypo\_ous acid), acid salts (add H to the polyatomic and change its charge)
2. Balancing
   1. Word equation
   2. Skeleton equation
   3. Balanced chemical equation with states
   4. Writing a chemical equation from a sentence
3. Chemical Reaction Types
   1. Synthesis
      1. Metal oxide (s) + water 🡪 base
      2. Nonmetal oxide (g) + water 🡪 acid
   2. Decomposition
      1. Chart word equations given
   3. Combustion
      1. Complete versus incomplete for hydrocarbons

CxHy + O2(g) 🡪 CO2(g) + H2O(g) complete

CxHy + O2(g) 🡪 C(s) + CO(g) + CO2(g) + H2O(g) incomplete

* + 1. Common oxides

AB + O2(g) 🡪 common oxides of A and B (CO2, H2O, SO2, NO2)

* 1. Single displacement

Compound is (aq)

* + 1. Activity series 🡪 metals

Halogen series 🡪 nonmetals

* 1. Double displacement

Left side of the equation is (aq)

* + 1. Precipitate 🡪 solubility chart
    2. Neutralization acid + base 🡪 salt + water
    3. Gas 🡪 do the double displacement reaction first and check to see if the products further decompose