**Classwork 1 & 2- Writing and Balancing Chemical Equations**

**Directions: For Classwork 1- Write the skeleton equation for each reaction.**

**For Classwork 2- Balance the skeleton equations for each reaction.**

1. sulfur (s) + oxygen (g) → sulfur dioxide (g)
2. zinc (s) + sulfuric acid (aq) → zinc (II) sulfate (aq) + hydrogen (g)
3. carbon (s) + water (l) → carbon monoxide (g) + hydrogen (g)
4. hydrochloric acid (aq) + sodium hydroxide (aq) → sodium chloride (aq) + water
5. aluminum sulfate (aq) + calcium nitrate (aq) → aluminum nitrate (aq) + calcium sulfate (aq)
6. ethane (C2H6) (l) + oxygen (g) → carbon dioxide (g) + water (g)
7. Lithium metal is burned in air (oxygen) to produce solid lithium oxide.
8. A solution of hydrogen peroxide (H2O2) is catalytically decomposed into water and oxygen gas.
9. Solutions of manganese (II) sulfate and ammonium sulfide are mixed to produce ammonium sulfate solution and manganese (II) sulfide precipitate.
10. Octane (C8H18) is burned in the presence of oxygen gas to produce carbon dioxide gas and water vapor.