**Chemical Equations – Practice Problems**

**Word Equations**

Write the word equations, including the plus sign and arrows.

**Example: Phosphorous reacts with bromine to produce phosphorus tribromide.**

**Phosphorous + Bromine tribromide**

1. Ammonia reacts with hydrogen chloride to form ammonium chloride.
2. When heated calcium carbonate breaks down (decomposes) to form calcium oxide and carbon dioxide.
3. Barium oxide reacts with water to form barium hydroxide.
4. Iron reacts with sulfuric acid to form iron(II)sulfate.

**Formula Equations**

Write the chemical equations using only formulas, including the plus sign and arrows. ***If the formula is not give you should be able to figure it out from the name.***

**Example: Dinitrogen pentoxide reacts with water to produce nitric acid (HNO3).**

**N2O5 + H2O HNO3**

1. When heated calcium sulfite Ca(SO3) breaks down (decomposes) to form calcium oxide and sulfur dioxide.
2. Carbon monoxide reacts with chlorine gas (Cl2) to form phosgene (COCl2).
3. Zinc metal reacts with copper(II)nitrate to form zinc nitrate and copper metal.
4. Phosphorous trichloride reacts with chlorine gas (Cl2) to produce phosphorus pentachloride.