Some common concepts to remember:

- Metal oxides act like a base in water and make a base
- Metal oxides act like a base with acid and neutralize
- Nonmetal oxides act like an acid in water and make an acid
- Nonmetal oxides act like an acid with a base and neutralize

Some Common Reactions to Know

Nonmetal oxide + water 
$$\rightarrow$$
 acid Nonmetal oxide + base  $\rightarrow$  salt + water 
$$CO_2(g) + H_2O(I) \rightarrow H_2CO_3(aq)$$
 
$$CO_2(g) + 2NaOH(aq) \rightarrow Na_2CO_3(aq) + H_2O(I)$$

\*\*Notice how soluble nonmetal oxides change to make an acid with 1/more oxygen\*\*

 $2AI(s) + 3Br_2(I) \rightarrow 2AIBr_3(s)$ 

**Practice Writing Equations:** 

CaO(s) + 
$$H_2O(I)$$
  $\rightarrow$ 

$$NiO(s) + H_2SO_4(s) \rightarrow$$

$$P_4O_{10}(s) + H_2O(l) \rightarrow$$

$$SO_3(g) + KOH(aq) \rightarrow$$

$$AI_2O_3(s) + HNO_3(aq) \rightarrow$$

Write a balanced chemical equation for the reaction between copper (II) oxide and sulfuric acid

Write a balanced chemical equation between the reaction of selenium dioxide and water