Naming Acids and Bases:

**ACIDS**

Acids are ionic compounds, in solution with water, with H+ acting as the metal. Examples include *Hydrochloric Acid (HCl), Hydrofluoric Acid (HF), Hydronitric Acid (H3N), Sulfuric Acid (H2SO4) and Chlorous Acid (HClO2).*

What we want to understand is how the names for the acids are determined. There are 3 general rules:

**1. If the non-metal part of the acid is an *element* (Cl-, N3-, Br-…) the name of the acid is:**

Hydro \_\_\_\_\_\_\_\_\_\_ ic Acid

where the blank is the beginning of the element’s name:

EX: HCl : Hydro\_\_\_\_\_\_\_\_\_\_ic Acid

HBr : Hydro\_\_\_\_\_\_\_\_\_\_ic Acid

H2S : Hydro\_\_\_\_\_\_\_\_\_\_ic Acid

**2. If the non-metal is a polyatomic ion ending in “ATE” (CO32- carbonate, SO42- sulfate…) the name of the acid is:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ic Acid

where the blank is the beginning of the name of the polyatomic ion.

\*NO HYDRO AT THE START

EX: H2CO3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ic Acid

H3PO4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ic Acid

HMnO4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ic Acid

**3. If the non-metal is a polyatomic ion ending in “ITE” (ClO2- chlorite, SO32- sulfite…) the name of the acid is:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ous Acid

where the blank is the beginning of the name of the polyatomic ion.

\*NO HYDRO AT THE START

EX: H2SO3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ous Acid

H3PO3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ous Acid

HNO2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ous Acid

**BASES:**

Bases are ionic compounds with hydroxide, OH-, acting as the non metal, in solution with water.

There is no special rule for naming them, we just name them as an ionic compound.

EX: NaOH : sodium hydroxide

Mg(OH)2 : magnesium hydroxide

Al(OH)3 : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_