CONCEPT: NAMING ACIDS

- **Acid**: usually a *covalent compound* beginning with a **hydrogen ion** called the _____ ion.
  - □ **Covalent Compound**: a compound that contains only _____ bonded together

Common Acids	Acetic Acid
HCl HNO_2 H_2SO_4 H_3PO_4 $HClO_2$	$HC_2H_3O_2$ or CH_3COOH

Binary Acids

- Represent covalent compounds containing the **H^+ ion** bonded to a nonmetal anion that is not _____.

Binary Acid Formation

H^+ + _____ ⟶ _____

Rules for Naming Binary Acids

STEP 1: The prefix will be _____ to represent the **H^+ ion**.

STEP 2: Use the base name of the nonmetal.

- □ When naming acids, we must use _____ for the element S and _____ for the element P.

STEP 3: The suffix will be _____.

EXAMPLE: Write the formula for each of the following compounds:

a. Hydroiodic acid **b.** Hydroselenic acid **c.** Hydrofluoric acid

PRACTICE: Give the systematic name for the following compound: H_2S

PRACTICE: Give the systematic name for the following compound: HCN

CONCEPT: NAMING ACIDS

Oxyacids

● Represent covalent compounds containing the **hydrogen ion** bonded to polyatomic ion containing _____.

Oxyacid Formation

H^+ + _____ ⟶ _____

Rules for Naming Oxyacids

1) If the polyatomic ion ends with *–ate* then change the ending to _____.

MEMORY TOOL I _____ an acid and it was _____!

$H^+ + NO_3^- \longrightarrow HNO_3$

Nitrate → Nitr_____

2) If the polyatomic ion ends with *–ite* then change the ending to _____.

MEMORY TOOL I only _____ into things that are _____.

$H^+ + NO_2^- \longrightarrow HNO_2$

Nitrite → Nitr_____

EXAMPLE: Write the formula for each of the following compounds:

a. H_2CO_3 **b.** H_3PO_3 **c.** H_2SO_4

PRACTICE: Write the formula for the following compound: Hypobromous acid

PRACTICE: Write the formula for the following compound: Cyanic acid