## Warm-UP:

1. Calcium and Chlorine form an ionic compound.
   a. Draw a Lewis structure (dot diagram) of the most likely compound to form

   b. What is the ionic formula of this compound?

   c. What is the name of this compound?

2. Write the chemical formula for each compound:
   a. potassium oxide
   b. copper (II) sulfide
3. Write the chemical name for the following compounds:
   a. $CoI_2$
   b. BaO

- **Acids & Bases**

- Acid: molecular compound that produces $H^+$ ions in a solution [in $H_2O$]

↳ Hydrochloric Acid

$HCl_{(g)} \xrightarrow{H_2O} H^+_{(aq)} + Cl^-_{(aq)}$

"gas" ↳ aqueous = in water

Naming of Acids:

1) If the anion ends in "-ide" then hydro-STEM-ic

$HI \rightarrow H^+ + I^-$

Hydro-Iod-ic = Hydroiodic acid

2) If anion ends in "-ate" then STEM-ic Acid

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

Nitric Acid  Nitrate

3) If anion ends in "-ite" then STEM-ous Acid

$HClO \rightarrow H^+ + ClO^-$

Hypochlorous Acid  hypochlorite

$H_2SO_3 \rightarrow H^+ + SO_3^{2-}$

Sulfous Acid

**6 Most Common Acids:**

- $HCl$ = hydrochloric acid
- $HNO_3$ = Nitric Acid
- $H_2SO_4$ = Sulfuric Acid
- $H_2CO_3$ = Carbonic Acid
- $H_3PO_4$ = Phosphoric Acid
- $H_2C_2H_3O_2$ = Acetic Acid

- **Bases:** produce hydroxide [$OH^-$] when dissolved in $H_2O$

↳ ☆ Most are ionic compounds → Follow these rules

$NaOH \rightarrow Na^+ + OH^-$

Sodium Hydroxide