

# GENERAL CHEMISTRY STANDARD 6.3

**6.3: Name ionic compounds from given chemical formulas**

# Naming Compounds from Chemical Formulas

- Ionic compounds are named from the individual ions they come from
- Name the cation and the anion, then remove “ion” from each name
  - $\text{NaCl} \rightarrow$  Sodium Ion + Chloride Ion  $\rightarrow$  Sodium Chloride
  - $\text{K}_2\text{CO}_3 \rightarrow$  Potassium Ion + Carbonate Ion  $\rightarrow$  Potassium Carbonate
  - $\text{Ag}_2\text{S} \rightarrow$  Silver Ion + Sulfide Ion  $\rightarrow$  Silver Sulfide
- If the cation has multiple possible oxidation numbers, then write the oxidation number of the cation in Roman Numerals between the cation and anion
  - $\text{Fe}(\text{NO}_3)_3 \rightarrow$  Iron (III) Ion + Nitrate Ion  $\rightarrow$  Iron (III) Nitrate
  - $\text{CuSO}_4 \rightarrow$  Copper (II) Ion + Sulfate Ion  $\rightarrow$  Copper (II) Sulfate
  - $\text{FeCO}_3 \rightarrow$  Iron (II) Ion + Carbonate Ion  $\rightarrow$  Iron (II) Carbonate