CONCEPT: NAMING IONIC COMPOUNDS

- Recall, ionic compounds contain a positive ion called a _____ connected to a negative ion called a _____.
  - □ **Cation:** Represented by a metal or the polyatomic ion: _____ ion.
  - □ **Anion:** Represented by a nonmetal or polyatomic anion.

Rules for Naming Ionic Compounds

STEP 0: The ionic compound is **always** written _____ + _____.

STEP 1: Cation: The metal **always** keeps its name and is written first.

- □ If the metal possesses _____ charge(s) we must use a Roman Numeral to describe its positive charge.
- □ If the metal possesses _____ charge(s) then we don't have to worry about a Roman Numeral.

STEP 2: Anion: If a nonmetal is used it keeps its *base name* but has its ending changed to _____.

- □ Recall, the *Base Name* is the beginning of the nonmetal's name that is unchanged.

Nonmetal	Base Name	Nonmetal	Base Name	Nonmetal	Base Name	Nonmetal	Base Name
Hydrogen (H)	_____	Nitrogen (N)	_____	Oxygen (O)	_____	Fluorine (F)	_____
Boron (B)	_____	Phosphorus (P)	_____	Sulfur (S)	_____	Chlorine (Cl)	_____
Carbon (C)	_____			Selenium (Se)	_____	Bromine (Br)	_____
Silicon (Si)	_____			Tellurium (Te)	_____	Iodine (I)	_____

STEP 3: Polyatomic Ion: If a polyatomic ion is present, it *always* keeps its name.

EXAMPLE: Provide the name for the following compound: $CaCl_2$

PRACTICE: Provide the name for the following compound: $Al(BrO_4)_3$

PRACTICE: Provide the name for the following compound: $CoCO_3$