

Unit 4: Ch 8 – Nomenclature: Ionic Compounds

MONATOMIC CATIONS:

➤ DEFINITION –

➤ MUST MEMORIZE: _____ ; _____ ; _____ ; _____ ; _____

➤ NAMING -

○ Ex) _____ = _____

○ Ex) _____ = _____

MONATOMIC ANIONS:

➤ DEFINITION –

➤ NAMING -

○ Ex) _____ = _____

○ Ex) _____ = _____

○ Ex) _____ = _____

BINARY IONIC COMPOUNDS:

➤ DEFINITION –

○ Formed from the _____ of _____.

○ EXPRESSION: _____

CHEMICAL FORMULAS:

➤ DEFINITION – Element _____ and _____ that indicate the _____ of each element in the _____.

○ Ex) _____ → _____ Iron and _____ Oxygen atoms

WRITING IONIC FORMULAS:

➤ WRITING RULES VIA *CRISS-CROSS METHOD*:

- 1. **From** chemical name, write _____ and _____ **side by side**.
 - Ex) Silver Nitride → _____
 - Ex) Barium Oxide → _____
- 2. Cross over _____ of _____ (**without sign**) as a _____ of the other.
 - Ex) Silver Nitride → _____ = _____
 - Ex) Barium Oxide → _____ = _____
- 3. **Always** _____ **subscripts** _____ possible.
 - WHY? → _____ whole number _____.
 - Ex) Silver Nitride → _____ = _____
 - Ex) Barium Oxide → _____ = _____
- 4a. _____ can carry _____ charges.
 - _____ are used to show its _____ charge.
 - Ex) _____ ; _____
 - Ex) _____ ; _____
- 4b. Special _____ metal **cations: MEMORIZE!!!**
 - Ex) _____ ; _____
 - Ex) _____ ; _____

➤ PRACTICE: WRITING

- Ex #1) Copper (II) Fluoride → _____ = _____
- Ex #2) Barium Phosphide → _____ = _____
- Ex #3) Calcium Sulfide → _____ = _____

NAMING IONIC COMPOUNDS:

➤ NAMING RULES:

- 1. From formula, name _____ (**cation**) by its _____ name.
 - Include _____ in _____ name _____ needed. → **REMEMBER EXCEPTIONS!**
- 2. Name the _____ (**anion**) by _____ its ending and add _____.
- 3. If done correctly, _____ charge of ionic compounds **ALWAYS** = _____ (**neutral**)

➤ PRACTICE: NAMING

- Ex #1) SnO_2 → _____ → _____
- Ex #2) Fe_2O_3 → _____ → _____
- Ex #3) MgF_2 → _____ → _____