

Study Guide – Nomenclature

- What is a binary compound? *compound composed of two elements*
- What is a ternary compound? *" " " three elements (polyatomic ions)*
- Summarize how you name ionic binary compounds. *metal and nonmetal w/ "ide"*
- Summarize how you write the formulas for binary compounds.
- What are the exceptions to using the roman numerals? *binary silver +1 zinc +2*
- Write the names for the following ionic compounds: *lead and tin need numerals*

a. CaCO_3	b. FeO	c. AgCl	a) calcium carbonate	f) sodium sulfide
d. $\text{Ca}_3(\text{PO}_4)_2$	e. $\text{Ba}(\text{OH})_2$	f. Na_2S	b) iron (II) oxide	g) iron (II) chloride
g. FeCl_2	h. CuSO_4	i. $(\text{NH}_4)_2\text{SO}_4$	c) silver chloride	h) copper (II) sulfate
			d) calcium phosphate	i) ammonium sulfate
			e) barium hydroxide	
- Write the formulas for the following ionic compounds:

a. sodium nitrate	b. potassium carbonate	a) NaN_3	b) K_2CO_3
c. iron (III) oxide	d. silver sulfide	c) Fe_2O_3	d) Ag_2S
e. aluminum hydroxide	f. calcium phosphate	e) $\text{Al}(\text{OH})_3$	f) $\text{Ca}_3(\text{PO}_4)_2$
g. magnesium chloride	h. copper (II) nitrate	g) MgCl_2	h)
- How can you tell if a compound is ionic or molecular? *cation anion metal + nonmetal or two nonmetals*
- Summarize how you name molecular compounds. *using the prefixes*
- Summarize how you write the formulas for molecular compounds.
- List the prefixes from 1-10 for molecular compounds.
- Write the names for the following molecular compounds:

a. CO_2 <i>carbon dioxide</i>	b. NO_2 <i>nitrogen dioxide</i>	c. N_2O_4 <i>dinitrogen tetroxide</i>
d. SO_3 <i>sulfur trioxide</i>	e. CCl_4 <i>carbon tetrachloride</i>	f. CO <i>carbon monoxide</i>
g. PCl_3 <i>phosphorus trichloride</i>	h. N_2O_5 <i>dinitrogen pentoxide</i>	i. SBr_3 <i>sulfur tribromide</i>
- Write the formulas for the following molecular compounds.

SO_2	a. sulfur dioxide	b. dinitrogen monoxide	N_2O
NO_5	c. nitrogen pentoxide	d. carbon disulfide	CS_2
PO_9	e. phosphorus nonoxide	f. oxygen difluoride	OF_2
PCl_3	g. phosphorus trichloride	h. carbon dioxide	CO_2
- How can you tell something is an acid? *It has an H in front*
- Summarize the rules for naming binary acids. *hydro___ic acid*
- Summarize the rules for naming ternary acids. *"ate" = ___ic acid "ite" = ___ous acid*
- Name the following acids.

a. H_2SO_4	b. HI	c. HNO_3	a) sulfuric acid	d) hydrochloric acid
d. HCl	e. H_2S		b) hydroiodic acid	e) hydrosulfuric acid
			c) nitric acid	
- Write the formulas for the following acids:

a. sulfurous acid	b. phosphoric acid
c. hydrofluoric acid	d. hydrobromic acid
a) H_2SO_3	b) H_3PO_4
c) HF	d) HBr