Practice Naming Ionic and Covalent Compounds

1) Name the following covalent compounds:

a) SiF_4 Silicon tetrafluoride	b) N_2S_3 dinitrogen trisulfide
c) CO carbon monoxide	d) Br_2 bromine

2) Write the formulas for the following covalent compounds:

a)diboron hexahydride B_2H_6	b)nitrogen tribromide NBr_3
c)sulfur hexachloride SCl_6	d)diphosphorus pentoxide P_2O_5

3) Name the following ionic compounds:

a) Na_2CO_3 Sodium Carbonate	b) NaOH Sodium hydroxide
c) $MgBr_2$ Magnesium bromide	d) KCl Potassium chloride
e) Fe^{2+} Cl_2 Iron (II) chloride	f) Fe^{3+} Cl_3 Iron (III) chloride

4) Mixed: Determine ionic or covalent, then name:

a) NaBr - ionic Sodium bromide	b) $Ca(C_2H_3O_2)_2$ - ionic calcium acetate
c)P_2O_5 - covalent diphosphorus pentoxide	d) K_3N - ionic Potassium nitride
e) SO_2 - covalent sulfur dioxide	f) CuOH : - ionic copper (I) hydroxide
f) P_2Br_4 - covalent diphosphorus tetrabromide	g) SF_6 - covalent sulfur hexafluoride
h) Li_2S - ionic lithium sulfide	i) N_2S - covalent dinitrogen monosulfide

Name_____ Date_____ Block____

Ionic Names & Formulas (front) and Covalent Names & Formulas

Resources: 1) Periodic Table 2) Ion Table; 3) Polyatomic Ion Table

1. Write formulas for the ionic compounds.

a) Barium sulfate **$BaSO_4$ or $Ba(SO_4)$**

b) Ammonium chloride NH_4Cl

c) Magnesium fluoride MgF_2

d) Sodium oxide Na_2O

e) Copper (I) iodide CuI

f) Zinc sulfide ZnS

g) Potassium carbonate K_2CO_3

h) Lead (II) phosphate $Pb_3(PO_4)_2$

i) Iron (III) hydroxide $Fe(OH)_3$

j) Chromium (III) oxide Cr_2O_3

k) Cobalt (III) nitrate $Co(NO_3)_3$

l) Ammonium phosphate $(NH_4)_3PO_4$

Cation	/ Anion
Ba^{2+}	$(SO_4)^{2-}$
NH_4^+	Cl^-
Mg^{2+}	F^-
Na^+	O^{2-}
Cu^+	I^-
Zn^{2+}	S^{2-}
K^+	CO_3^{2-}
Pb^{2+}	PO_4^{3-}
Fe^{3+}	OH^-
Cr^{3+}	O^{2-}
Co^{3+}	NO_3^-
NH_4^+	PO_4^{3-}

2. Write the names for the Ionic Compounds.

a) $Cu(SO_4)$ **copper(II) sulfate**

b) Li_3N lithium nitride

c) $Ba(SO_4)$ barium sulfate

d) Sr_3P_2 strontium phosphide

e) $Mg(OH)_2$ magnesium hydroxide

f) Al_2S_3 aluminum sulfide

g) $AgBr$ silver bromide

h) CaI_2 calcium iodide

i) PbO_2 lead (IV) oxide

j) Li_2O lithium oxide

k) FeI_3 iron (III) iodide

l) $Cu_3(PO_4)$ copper (I) phosphate

m) Cs_3N cesium nitride

n) $Zn(NO_3)_2$ zinc nitrate

Cation	/ Anion
Cu^{2+}	$(SO_4)^{2-}$
Li^+	N^{3-}
Ba^{2+}	SO_4^{2-}
Sr^{2+}	P^{3-}
Mg^{2+}	OH^-
Al^{3+}	S^{2-}
Ag^+	Br^-
Ca^{2+}	I^-
Pb^{4+}	O^{2-}
Li^+	O^{2-}
Fe^{3+}	I^-
Cu^+	PO_4^{3-}
Cs^+	N^{3-}
Zn^{2+}	NO_3^-