Chemistry A
Practice Naming Ionic Compounds

Name: _____
Date: _____ **Period:** _____

Directions: Use the manipulative to build different ionic compounds.

Common Polyatomic Ions

1– charge		2– charge		3– charge	
Formula	**Name**	**Formula**	**Name**	**Formula**	**Name**
$H_2PO_4^-$	Dihydrogen phosphate	HPO_4^{2-}	Hydrogen phosphate	PO_3^{3-}	Phosphite
$C_2H_3O_2^-$	Acetate	$C_2O_4^{2-}$	Oxalate	PO_4^{3-}	Phosphate
HSO_3^-	Hydrogen sulfite	SO_3^{2-}	Sulfite		
HSO_4^-	Hydrogen sulfate	SO_4^{2-}	Sulfate		
HCO_3^-	Hydrogen carbonate	CO_3^{2-}	Carbonate	**1+ charge**	
NO_2^-	Nitrite	CrO_4^{2-}	Chromate	**Formula**	**Name**
NO_3^-	Nitrate	$Cr_2O_7^{2-}$	Dichromate	NH_4^+	Ammonium
CN^-	Cyanide	SiO_3^{2-}	Silicate		
OH^-	Hydroxide				
MnO_4^-	Permanganate				
ClO^-	Hypochlorite				
ClO_2^-	Chlorite				
ClO_3^-	Chlorate				
ClO_4^-	Perchlorate				

Chemical Names and Formulas **147**

Polyatomic ions are and ion that is formed from two or more atoms **covalently bonded together.** You treat the whole polyatomic ion as one unit.

Don't forget that we use Roman Numerals to indicate the oxidation number(charge) of the transition metal. For example, FeO = Iron (II) oxide.

Elements or Polyatomic Ion	**Cation / Anion**	**How many of each element?**	**Name of compound**
Magnesium Oxygen	Cation:		
	Anion:		
Sulfur Sodium	Cation:		
	Anion:		
Aluminum Chloride	Cation:		
	Anion:		

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Elements or Polyatomic Ion	Cation / Anion	How many of each element?	Name of compound
Aluminum Sulfur	Cation:		
	Anion:		
Potassium Sulfite	Cation:		
	Anion:		
Calcium Hydroxide	Cation:		
	Anion:		
Iodine Barium	Cation:		
	Anion:		
Phosphorous Lithium	Cation:		
	Anion:		
Iron (II) Sulfate	Cation:		
	Anion:		
Nitrate Aluminum	Cation:		
	Anion:		

Write the formulas of the following ionic compounds:

1) iron (II) arsenide _____

2) lead (II) sulfate _____

3) beryllium chloride _____

4) potassium sulfide _____

Write the names of the following ionic compounds:

5) KI _____

6) Mg_3P_2 _____

7) NaF _____

8) $Cr(PO_4)_2$ _____