

**Exploring Elements, Ions, and Compounds**

Name \_\_\_\_\_

*Please complete the following requests (include both chemical symbol and chemical name):*

Alkali metals  $\rightarrow$  +1

- list three cations:

Halogens  $\rightarrow$  -1

- list three anions:

Alkaline Earth Metals  $\rightarrow$  +2

- list three cations:

Polyatomic ions  $\rightarrow$  -1 or -2 or -3

- list 6 polyatomic anions with charge and name:

Polyatomic cations  $\rightarrow$  +1

- list one polyatomic cation:

Transition Metals  $\rightarrow$  +2, +3 or more

- list 6 transition metal cations (include Fe and Cu)

***Ionic Compounds (cation + anion)***

*Show two examples of the following (use the chemical formula):*

- an alkali metal + a halogen:  
(ex.  $\text{Na}^+ + \text{Cl}^- \rightarrow \text{NaCl}$ )

- an alkaline earth metal + halogen:

- an alkali metal + polyatomic anion:

- an alkaline earth metal + polyatomic anion:

- a transition metal + halogen:

**Visiting the Chemistry Stockroom:**

Look for **four** of the ionic compounds listed on the previous page...  
(write the formula or name below):

List below 4 ionic compound that you did not list above, but found in the chemistry stockroom  
(write formula and name):

Select one ionic compound from the stockroom and bring it back to the lab for continued discussion.