

# Ionic Bonding Worksheet

Write the formula which results from combining the following ions:

- 1)  $K^{+1}$  and  $Br^{-}$
- 2)  $Li^{+1}$  and  $O^{-2}$
- 3)  $Ca^{+2}$  and  $Cl^{-1}$
- 4)  $Al^{+3}$  and  $S^{-2}$
- 5)  $Fe^{+2}$  and  $S^{-2}$
- 6)  $Na^{+1}$  and  $NO_3^{-1}$
- 7)  $Na^{+1}$  and  $SO_4^{-2}$
- 8)  $NH_4^{+1}$  and  $CO_3^{-2}$
- 9)  $Fe^{+3}$  and  $CrO_4^{-2}$
- 10)  $Al^{+3}$  and  $PO_4^{-3}$

11) For each of the following pairs of elements, use a periodic table to determine the charge on both the cation and the anion. Then determine the formula of the compound or compounds formed. When writing formulas, be sure to put the cation first.

Elements		Compound Formula(s)
Mg	Br	
K	S	
Cl	Al	
S	$Cu^{+1}$   $Cu^{+2}$	
F	$Zn^{+2}$	
O	$Co^{+2}$   $Co^{+3}$	
Aluminum	Oxygen	
Calcium	Iodine	

12) Explain why oxygen is a fairly reactive element while neon is not.

13) Explain why beryllium loses electrons when forming ionic bonds, while sulfur gains electrons.

14) Explain why fluorine and chlorine have similar reactive qualities (the word "valence" should be somewhere in your answer.)