General Science 3200

Worksheet 4: Writing Formulas for Ionic Compounds **Name:_____**

Use the periodic table to find the two ions (positive ion and negative ion) for each compound. Then write the formula.

Remember, the overall charge of the compound is neutral (zero charge). Thus, the overall positive charge must be equal to the overall negative charge.
Example: calcium chloride

Ca^{2+} Cl^- **(These two charges are not the same, but 2 chloride ions will give an overall negative charge of -2. The positive ion already has a + 2 charge.)**

$Ca^{2+}Cl_2^-$

Ca^{2+}	
Cl^-	Cl^-

Count up the total charge.
+2, -1, -1
This adds up to zero!!

Therefore, $CaCl_2$ **is the answer.**

Name	Positive Ion	Negative Ion	Formula
1) sodium chloride ex.	Na^+	Cl^-	$NaCl$
2) potassium bromide			
3) calcium oxide			
4) magnesium sulfide			
5) zinc chloride			
6) sodium sulfide			
7) strontium fluoride			
8) lithium oxide			
9) potassium nitride			
10) sodium phosphide			
11) aluminum chloride			
12) calcium nitride			
13) aluminum oxide			
14) magnesium phosphide			
15) aluminum sulfide			