**Compounds and Polyatomic Ions Homework**

1. *Review*: Answer the following questions about compounds.
   1. What is a compound?
   2. Which of the following are compounds (circle all of the compounds)?

Na NaCl PO4 S SO4 Cl ClO3 KBr

1. *Review*: **KBr 🡨 K + Br**
   1. What is the name of the compound KBr?
   2. What are the reactants in this chemical equation? What are the products?
   3. What charge does K have? What charge does Br have?
   4. Which is the cation, K or Br? How do you know?
2. *Review*: Where are the MOST electronegative things found on your Periodic Table? Give an example of one of the LEAST electronegative elements on your Periodic Table.
3. **K + N 🡪 ??**
   1. K = N =
   2. Charge of K = Charge of N = Are they equal?
   3. Write the equation with charges:
   4. Product = Name =
4. **Ca + Al 🡪 ??**
   1. Ca = Al =
   2. Charge of Ca = Charge of Al = Are they equal?
   3. Write the equation with charges:
   4. Product = Name =
5. Fill in the data table for the polyatomic ions. Use your notes to help you.

|  |  |
| --- | --- |
| Ion Symbol  and Charge | Name of  Polyatomic Ion |
| PO4-2 |  |
|  | Carbonate Ion |
|  | Hydroxide Ion |
| NO3-1 |  |
| SO4-2 |  |

1. **Ca + PO4 🡪 ??**
   1. Ca = PO4 =
   2. Charge of Ca Charge of PO4 Are they equal?
   3. Write the equation with the charges:
   4. Product = Name =
2. **Mg + NO3 🡪 ??**
   1. Mg = NO3 =
   2. Charge of Mg = Charge of NO3 = Are they equal?
   3. Write the equation with the charges:
   4. Product = Name =
3. **Potassium + Sulfate Ion 🡪 Potassium Sulfate**
   1. Potassium = Sulfate Ion =
   2. Charge of Potassium = Charge of Sulfate Ion = Are they equal?
   3. Write the equation with the charges and chemical symbols:
   4. Product = Name =
4. How are the charge and subscript related (which charge becomes which subscript – USE CATION AND ANION IN YOUR ANSWER)?