Balancing Chemical Equations Review Worksheet name:

Vocabulary

* Spectator Ions
* Activity Series
* Solubility
* Catalyst
* Reactant
* Product
* Net Ionic Equation
* Chemical Reaction
* Coefficient
* Subscripts
* State of Matter
* Aqueous

1. What are the 5 types of equations and a characteristic of each?
2. What are the products and states that occur in all five equations?
3. Write the net ionic equation for the following equation

BaCl2(aq) + Na2SO4(aq) → BaSO4(s) + 2NaCl(aq)

1. Write the correct ionic formulas for the elements below. Then state if they are aqueous or solid.
   1. Barium and fluorine
   2. Lithium and nitrate
   3. Iron(II) and Bromide
   4. Calcium and sulfur
   5. Sodium and Sulfate
2. Name the following acids
   1. Hydrochloric acid
   2. Chloric Acid
   3. Chlorous Acid
3. Know what kind of covalent bonds will form by using the information we learned in the covalent chapter.
   1. What does oxygen like to do?
   2. What does nitrogen like to do?
   3. What does carbon like to do?
   4. What does halogen like to do?
4. Circle the reactant and box the products in the following reaction.

BaCl2(aq) + Na2SO4(aq) → BaSO4(s) + 2NaCl(aq)

1. Predict the products of the following equation, write the formulas correctly, and then label the states of matter for each compound.
   1. N2 + H2 🡪
   2. HCN + CuSO4 🡪
   3. GaF3 + Cs 🡪
   4. CH4 + O2 🡪
2. For the table below write each **formula correctly** in the products and reactants observing all diatomic molecules, ionic compounds, and covalent compounds. Then balance each equation so that each side has the same amount of each atom. Name the type of equation and write the states (solid, liquid, gas, aqueous) for each element and compound

***Nitric Acid reacts with Fe(OH)2***

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| Type of Equation |  |
| Write the Chemical Equation |  |
| Balance the Equation |  |
| Complete Ionic Equation |  |
| Net Ionic Equation |  |