

# Review Chemical Reactions #1

## A. Vocabulary – Matching

- |         |                             |   |
|---------|-----------------------------|---|
| 1. ____ | Precipitate                 | a. Substance formed during a chemical reaction  |
| 2. ____ | Law of Conservation of Mass | b. A chemical reaction that releases heat   |
| 3. ____ | Exothermic Reaction         | c. Solid that occurs from the mixing of two water solutions of ionic compounds                          |
| 4. ____ | Endothermic Reaction        | d. A substance that enters into a chemical reaction   |
| 5. ____ | Single Replacement Reaction | e. Chemical reactions will have the same mass in its reactants as it does in its products.              |
| 6. ____ | Balanced Chemical Equation  | f. A chemical reaction in which an uncombined element replaces another element in a compound.           |
| 7. ____ | Reactant                    | g. A chemical reaction that absorbs heat.   |
| 8. ____ | Product                     | h. A chemical equation in which each side of the equation has the same number of atoms of each element. |

## B. Naming ionic and covalent compounds, use flowchart to name the following

- a.  $Mg(OH)_2$  \_\_\_\_\_
- b.  $Fe(NO_3)_2$  \_\_\_\_\_
- c.  $N_2O_5$  \_\_\_\_\_

## C. What are the 5 things used as evidence of a chemical reaction?

- 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_
- 4 \_\_\_\_\_ 5 \_\_\_\_\_

## D. Determine the number of each atom in the following chemical formulas, keeping the polyatomics together in the parentheses.

- a.  $K_2(SO_4)$  \_\_\_\_\_ b.  $5Ca_3(PO_4)_2$  \_\_\_\_\_

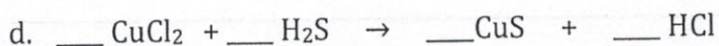
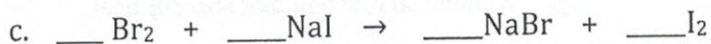
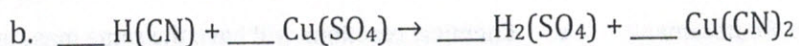
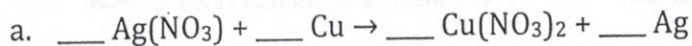
## E. Word Equations

- a. Sodium bicarbonate decomposes when heated producing carbon dioxide and sodium carbonate.

## F. Formula Equations

- a. Aluminum Metal reacts with copper(II)chloride to form aluminum chloride and copper metal.

**G. Balancing Equations - show your work (counting atoms)**



**H. Write the formula equations for the following then balance it. Make sure your formulas are correct before balancing.**

a. Potassium metal reacts with magnesium bromide to make potassium bromide and magnesium metal.

b. Sodium metal reacts with chlorine gas that has a formula of  $\text{Cl}_2$ , and makes sodium chloride.

## Challenge

Aluminum metal reacts with hydrochloric acid,  $\text{HCl}$  to form hydrogen gas,  $\text{H}_2$  and aluminum chloride.