

Name: _____
Period: _____

Lab: Types of Reactions

Purpose: To observe and classify different types of chemical reactions.

Procedure:

Reaction #1

- (1) Obtain a piece of magnesium. Record observations of the reactant.
- (2) Turn on a Bunsen burner and using tongs, hold the piece of magnesium in the flame until you observe it burning. **DO NOT LOOK DIRECTLY IN THE FLAME.**
- (3) Place the product on a watch glass. Record observations of the product.
- (4) Discard the product in the appropriate waste container.

Reaction #2

- (1) Obtain a dropper bottle containing copper (II) sulphate solution and a piece of aluminum foil. Record observations of the reactants.
- (2) Combine 5 drops of copper (II) sulphate solution and the aluminum foil in a well plate. Allow the reaction to continue for 3 minutes. Record observations of the products.
- (3) Discard the contents of the well plate into the appropriate waste container.

Reaction #3

- (1) Obtain a dropper bottle of hydrochloric acid and a piece of magnesium. Record observations of the reactants.
- (2) Combine 5 drops of hydrochloric acid and the magnesium in a well plate. Allow the reaction to continue for 3 minutes. Record observations of the products.
- (3) Discard the contents of the well plate into the appropriate waste container.

Reaction #4

- (1) Obtain dropper bottles containing hydrochloric acid and sodium hydroxide solution, and phenolphthalein.
- (2) Put 5 drops of hydrochloric acid in a small test tube.
- (3) Put 5 drops of sodium hydroxide in another small test tube. Add two drops of phenolphthalein to this test tube. (The phenolphthalein is only added to monitor the reaction)
- (4) Record observations of the reactants.
- (5) Combine the contents of the two test tubes. Rinse the test tube with a wash bottle several times to ensure that all of the contents have been transferred.
- (6) Record observations of the products.
- (7) Discard the contents of the test tube into the appropriate waste container.

Reaction #5

- (1) Obtain dropper bottles containing sodium chloride and silver nitrate solution. Record observations of the reactants.
- (2) Combine 5 drops of each solution in a well plate. Record observations of the products.
- (3) Discard the contents of the well plate the appropriate waste container.

Observations:

Reaction	Observations of Reactants	Observations of Products
1		
2		
3		
4		
5		

Questions: Complete the following table.

Reaction	What evidence is there that a reaction took place?	Complete and <u>balance</u> the chemical equation. Name each product.	Classify the reaction
1		magnesium + oxygen → + →	
2		copper (II) + aluminum → + sulphate + → +	
3		hydrochloric + magnesium → + acid + → +	
4		hydrochloric + sodium → + acid hydroxide + → +	
5		sodium + silver → + chloride nitrate + → +	

Conclusion:

Complete the following general equations.

