

Name: _____ Date: _____ Hour: _____

Activity #14: Physical and Chemical Properties of Materials

Directions: After completing the lab activity, answer the following analysis questions in complete sentences. Quality (thoughtful and detailed) answers are required.

Analysis Questions:

1. What is a physical property in your own words?

2. List five of the nine physical properties that you tested for each object.

3. What is a chemical property in your own words?

4. What were the signs a chemical reaction was taking place when Hydrochloric Acid reacted with some of the materials?

5. In chart below, fill in two properties each category of materials had in common.

Metals	Non-metals	Rocks

6. Color is referred to as a physical property of a material. Explain a time when *only* knowing the color would not be enough information to correctly identify the material?

7. For each product listed in the table below, fill in one material that you tested in this activity that would work well and one material that would not work well in each scenario. Explain your reasons.

Use of Material	Material that will work well	Reason	Material that will NOT work well	Reason
Electrical Wire				
Garden Statue				
Toy Boat				
Countertop				
Container to put acid into safely				

Conclusion: Why would a material scientist need to know a material's physical and chemical properties before deciding on how it will be used best?
