

Properties of Matter Lab

Objectives:

Provide a deeper understanding of properties of matter. Determine if the reactions are a physical or chemical property change.

Procedures:

Collect observation before, during, and after each step in the procedure.

Ensure you use your senses (listen, smell, touch, and sight...DO NOT TASTE).

1. Collect 10 ml of distilled water in a test tube; add a pinch of sodium chloride (salt). Ensure the salt totally dissolves. Add three drops of silver nitrate to the solution. Record results.

Before	During	After

2. Add 10 ml of Copper Sulfite solution. Add a small piece of aluminum to the solution. Record results.

Before	During	After

3. Add 10 ml of distilled water to a test tube. Add a pinch of borax to the water. Add three drops of Phenolphaline. Record results.

Before	During	After

4. Add 3 ml of Hydrochloric Acid (HCl) to a test tube. Go to the front table and scratch a penny with a metal file. Place scratched penny in the HCl and record results.

Before	During	After

5. Add a small amount of calcium carbonate (baking soda) to a test tube. Add 2 ml of HCl to the Calcium Carbonate and record results.

Before	During	After

6. Add a small amount of sodium polyacrylate to a test tube. Add 2ml of distilled water to the test tube and record observations.

Before	During	After

7. Collect 10 ml of distilled water in a test tube; add a pinch of sodium chloride (salt). Ensure the salt totally dissolves. Boil the water until it is gone and immediately remove beaker. What is boiling?

The process of

Is this a physical or chemical change?

Before	During	After

8. Collect an ice cube and watch it melt. What is ^{the process of} melting?

Is this a physical or chemical change?

Before	During	After

9. Mix sand and paper clips on a tray and a paper towel. Without touching the paper clip, remove the clips in less than ten seconds and time your results. Hint: Some metals are magnetic.

10. Based on all observations, what is a chemical change? What is a physical change? List the evidence for a chemical change and physical change. Use previous knowledge to come up with the answers.

Chemical Change	Physical Change