

S8P1a. I can develop and use a model to compare and contrast pure substances (elements and compounds) and mixtures. This includes homogeneous and heterogeneous mixtures.



Solids, Liquids, and Gas Lab

**Prior Knowledge:**

1. What is a solid? \_\_\_\_\_
2. What is a liquid? \_\_\_\_\_
3. What is a gas? \_\_\_\_\_
4. What is plasma? \_\_\_\_\_

**Problem:** How can you tell the difference between a solid, liquid, and a gas?

**Hypothesis:** If \_\_\_\_\_, then \_\_\_\_\_

**Materials:** Vinegar, Beaker, water bottle, baking soda, balloons, funnel, spoon

**Instructions/Procedure:**

1. Fill your beaker with 50 mL of vinegar and pour it inside of the empty water bottle. What state of matter is the vinegar in? \_\_\_\_\_ How do you know? \_\_\_\_\_  
\_\_\_\_\_
2. Attach your balloon to a funnel. Pour 3 teaspoons of baking soda into the funnel to get the baking soda into the balloon. What state of matter is the baking soda? \_\_\_\_\_  
How do you know? \_\_\_\_\_
3. Remove the balloon from the funnel. Carefully cover the top of the water bottle with the top of the balloon. Predict what will happen when the liquid and solid mix. I predict \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. What did your balloon do? \_\_\_\_\_
5. What is the balloon full of? \_\_\_\_\_ How can you tell? \_\_\_\_\_  
\_\_\_\_\_

**S8P1a. I can develop and use a model to compare and contrast pure substances (elements and compounds) and mixtures. This includes homogeneous and heterogeneous mixtures.**

**Lab Review Questions**

6. What happened when you mixed the solid and liquid? \_\_\_\_\_

\_\_\_\_\_

7. What caused the balloon to rise? \_\_\_\_\_

\_\_\_\_\_

8. What is the difference between a solid and a liquid? \_\_\_\_\_

\_\_\_\_\_

9. What is the difference between a liquid and a gas? \_\_\_\_\_

\_\_\_\_\_

10. What is the difference between a solid and a gas? \_\_\_\_\_

\_\_\_\_\_