## Last name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ First name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_

# SLIME LAB – What is slime anyway???

**Objective: Identify a state of matter by comparing/contrasting properties/characteristics.**

**Background:**  The state of matter of a substance is determined by the motion, spacing, and attraction of the molecules. You will be making a material and then answering questions about the state of matter.

**Pre-lab information:**

|  |  |
| --- | --- |
| State of matter | Characteristics |
| SOLID | Definite shape? YES / NO  Definite volume? YES / NO |
| LIQUID | Definite shape? YES / NO  Definite volume? YES / NO |
| GAS | Definite shape? YES / NO  Definite volume? YES / NO |

Consider the ingredients for a moment:

1. What state of matter is the water? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What state of matter is the glue? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What state of matter is the Borax powder? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Materials**: You will need the following items per group: 4 plastic baggies, 2 Tablespoons,

2 teaspoons, 2 Elmer’s Glue (1 TBS.@), two 50 ml beakers for cold water, 1 large measuring cup with warm water, Borax powder, one 400 ml beaker on a single burner, 1 stirring stick, hand lotion

**Procedure:**

1. **ONE PERSON FROM YOUR TABLE GROUP:**

A. From the single burner, (DO NOT TOUCH BURNER) carefully pour ONE cup of warm water into your plastic measuring cup.

B. ADD 1 TABLESPOON of BORAX to the plastic measuring cup and with a wooden stick and MIX thoroughly.

C. Refill the beaker by adding 300 ml of water and place back on the burner.

**EACH STUDENT DO THE FOLLOWING:**

1. Fill the 50 ml beaker with cold water.
2. Measure and pour 1 TEASPOON of COLD water into your plastic baggie.
3. Measure and pour 1 TABLESPOON of GLUE into your plastic baggie.
4. After you and your partner are done with the glue, RINSE and CLEAN the tablespoon.
5. SEAL the baggie and mix GENTLY by squeezing the baggie with your fingers.
6. Measure and pour 1 TABLESPOON of the BORAX MIXTURE into your plastic baggie.
7. SEAL and mix GENTLY by squeezing the baggie with your fingers.
8. Add 1 TABLESPOON OF hand lotion into your plastic baggie.
9. SEAL and mix GENTLY by squeezing the baggie with your fingers.
10. Do this until the slime forms.
11. Take out your slime and OBSERVE the properties and characteristics of your slime.
12. Write your observations below.

**Observations:**

Does it stretch? YES or NO

Does it wiggle? YES or NO

Does it bounce? YES or NO

What does your slime remind you of? What other materials/substances have you seen that have similar properties to your slime?

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| --- | --- | --- |
| Property of slime | Description in words | What state of matter  is this similar to? |
| *Texture* – What does it feel like? (hard/soft, wet/dry) |  |  |
| *Ability to flow* – Can it be poured? Does it “ooze” from one place to another? |  |  |

|  |  |  |
| --- | --- | --- |
| *Property of slime* | Description in words | *What state of matter is*  *this similar to?* |
| *Shape changes* – Does it take the shape of its container? |  |  |
| *Volume changes* – Can it change the amount of space it takes up? |  |  |

**CLAIM:** I think my slime is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**EVIDENCE:** Write the things you observed about your slime that led you to your claim.

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**REASONING:** What do you know about solids, liquids, and gases? (shape, volume, motion, spacing, attraction, temperature, etc.) Explain why the evidence supports your claim.

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