Slime Lab __/20 pts

Introduction: Slime is a substance that has some properties of a solid, and some properties of a liquid. These types of substances are called **colloids** (KAWL oydz). Popular colloids include milk, mayonnaise, Jello, and even whipped cream. There are many different types of slime and many different recipes. They also have different names. To make Oobleck, mix water and cornstarch together. We will be making Glurch, or Flubber, which is made with Borax, glue and water- and I call Slime!

Materials

40 mL water 20 mL white glue 2 drops food coloring
15 mL Borax (white powder) Small baggie spoon
white plastic cup marked H_2O & Borax small beaker labeled Glue
50 mL graduated cylinder labeled H_2O 25 mL graduated cylinders labeled BORAX

Procedures: *Check off your procedures as you complete each step.* (2pts) **Part 1:**

_____ 1. Clean all materials thoroughly.

_____ 2. Measure 20mL glue in the labeled GLUE beaker.

_____ 3. Measure 20mL water in a 50 mL graduated cylinder labeled H_2O

_____ 4. Add the water to the glue and mix with white spoon.

_____ 5. Add both to a small baggie.

_____ 6. Get 2 drops of food coloring from Mrs Gillum.

_____ 7. Seal bag (double check, make sure it is closed).

Element - any substance that cannot be broken up into simpler substances by chemical means
Compound - a substance formed when atoms of two or more elements join together
Mixture -a material consisting of two or more substances that are not chemically bound to each other and can be separated

_____ 8. Gently knead bag until thoroughly mixed. - *Record observations in row 1 of your data table.*

Part 2

_____ 9. Measure 20 mL water in the labeled H_2O graduated cylinder and pour the water into the CLEAN white plastic cup marked H_2O & Borax

_____ 10. Measure 15 mL borax (white powder) in the labeled Borax 25 ml graduated cylinder

_____ 11. Add the borax to the water and stir until mostly combined.

_____ 12. Immediately, add both to the baggie and seal completely.

_____ 13. Mix until there is no liquid - be careful not to break the bag! –

(10 pts for completion of this section) *Record observations in row 2 of your data table.*

Observations

	Observations – use all of your senses but taste!!!! (3 pts ea /total 6 pts)
Part 1	
Part 2	

Analysis & Conclusion (Questions 1-4, 2 pts each=8 pts)

1. Oobleck is made by combining the items below: Are they: Solid, liquid or gas?
Water _____ Borax _____
Elmer's Glue _____ Food coloring_____

2. Press your slime into a ball. Let it sit on your table for a couple of minutes and observe. What do you see? _____
_____
_____

3.Put a small object like a paperclip on the slime. Let it sit for a while. What happens?
_____
_____

4. Overall, does slime behave like a solid, liquid or gas? Explain WHY you think that
_____
_____
_____
_____

6. **5 sentence** conclusion: What is slime? Do you think your slime is an element, compound, or mixture? What is your evidence? (6 pts)
_____
_____
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What Matters?Ice Cream! (20pts)

Change of State: Making Ice Cream is science! 1ec printing pt

Purpose: After completing this lab, every student will be able to explain the concept of state changes.

Also, every student will be able to describe the effects of adding salt to water.

Materials

* 1 gallon-size zip lock bag
* 1 quart-size zip lock bag
* 1 sandwich-size zip lock bag
* 2 cups of ice
* 6 tablespoons of rock salt (NaCl)
* 1 tablespoon of sugar
* 1/2 teaspoon of vanilla
* 1/2 cup of whole milk

Procedure

In the **small** (sandwich-size) bag, mix:

1. 1/2 cup of whole milk
2. 1/2 teaspoon (tsp) of vanilla
3. 1 tablespoon (tbsp) of white sugar
4. Make sure the baggie is sealed TIGHT.
5. Place the small baggie into a **medium** (quart-size) baggie and seal tight.

In the **large** (gallon-size) baggie, add:

6. 2 cups (or 1 party cup) of ice
7. Record the temperature of the ice as best you can.
8. Add 6 tablespoons of rock salt (or one small Dixie cup) to the large baggie and place the sealed small bags in the large bag. Seal tight.
9. Holding the large bag by its seal, roll the baggies back and forth, over and over, until the milk/sugar/vanilla has hardened (may take 5-15 minutes). Please do this on a towel.
10. Once solidified, open bag, measure and record temperature of the ice.
11. Empty the ice into the sink and rinse it down. Throw your large and medium plastic bags in the trash.

Add "toppings" if you brought some. Grab a spoon and enjoy results

Variables: (1pt)

_____

Controls: (1pt)

_____

Experimental Hypothesis (1pts)

_____

_____

Observations (2pts)----------

_____

_____

_____

Analysis----------5pts

1. Why is salt added to the ice? _____

_____

2. What changes did you see and feel after salt was added to the ice?

_____

3. How did this affect the ice cream? _____

_____

4. How is this related to state change? _____

_____

5.Why are large crystals of salt (rock salt) used instead of small crystals (table salt)? _____

_____

Conclusion & Evidence:----------

What did you learn? What evidence was there to prove/disprove your hypothesis? 5 sentences MINIMUM (10 pts)

_____

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