

Lab #2 – Observation Explosion!

For Every Lab:

- Read all instructions before beginning to work.
- Follow the instructions carefully.
- Work as a team with your lab partner or group.
- Record all observations as you do each step.
- Make sketches where appropriate.
- Clean up your lab table and sink top before the end of the period.

Materials:

- | | | |
|-----------------------------|--|-----------------|
| * 250 ml beaker | * stirrer (plastic teaspoon) | *balance |
| * safety goggles | * Raisins, craisins, cranberries, grapes | * funnel |
| * 100 ml graduated cylinder | * Baking Soda | * White vinegar |
| * 25 ml graduated cylinder | * 100 ml beaker | * eye dropper |

Procedure:

1. Add 10g of baking soda to the **empty** 250 ml beaker.
 - a. *(Return Baking Soda Spoon to jar – DO NOT stir with it!)*
2. Use the appropriate size graduated cylinder(s) to measure 120 ml of tap water.
 - a. Pour the water **SLOWLY** into the beaker and **stir gently** with the spoon.
 - b. In the observations section, **describe** the appearance of your solution.
 - c. **Make & label sketches** of the beaker during **each step** of your experiment (in observations section)
3. Measure 30 ml of vinegar with a graduated cylinder.
 - a. Add the vinegar to the solution in the beaker **VERY SLOWLY – without stirring!**

- b. Has the appearance of your solution changed? **Describe it** (in observations section). What happened?
4. *Carefully* put three or four items of your choice (any combination, from the front table) into the solution and watch what happens. Look for details and not just the obvious things to happen. You may need to watch carefully for more than 5 minutes, so please **be patient**. What did you observe? **Describe it** (in observations section).

Name _____ Date _____ Per _____

Lab #2– Observation Explosion!

Purpose: Why do you think we're doing this lab?

Hypothesis: (read all instructions, then form your "Educated Guess") What will occur when baking soda, vinegar, water, and the items are combined?

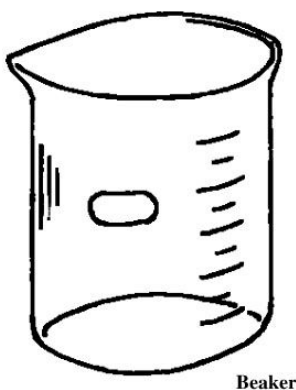
If _____, then
_____, because
_____.

Observations: (3 Labeled Sketches – one each from steps 2, 3, and 4)

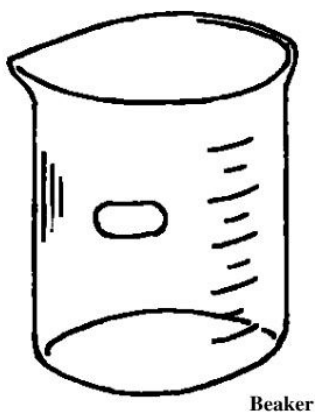
Labeled sketches:

Written observations:

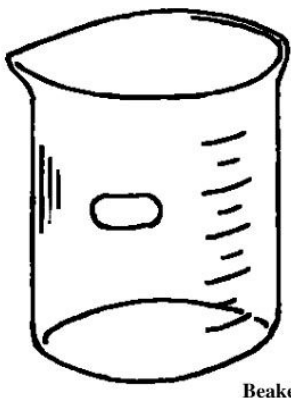
(3 detailed descriptions per sketch - ok to bullet)



Step 2.



Step 3.



Step 4.

Analysis Questions: – use COMPLETE SENTENCES, provide relevant and specific data/evidence from your lab experience.

1. What ingredient (or combination of ingredients) caused the fizzing?
2. Discuss several ways your items behaved in the solution.
3. Compare your data to other groups' data.

Comments: What did you learn by doing this lab? Provide relevant evidence.

Lab #2– Observation Explosion! Scoring guide

_____ On Time _____ Neat

1. **Purpose** - Why you think we did this lab _____
10
2. **Hypothesis** - If, then, because _____ 10
3. **Observations**
- 3 labeled sketches with at least 3 detailed written descriptive phrases per sketch. _____ 30
4. **Gallery walk** - with a series of sketches for each group, with oral conclusion _____ 15
5. **Analysis Questions** – Answer 3 Q’s in complete sentences
with evidence from the lab experiences _____ 15
6. **Comments**- What did you learn by doing this lab?
Provide relevant evidence. _____ 20