

Chemistry CP

Name:

Minilab: Making Glue Balls

Name:

In order for you to become a successful chemist, you need to develop many skills, including multi-step problems, thinking abstractly, and communicating ideas clearly. The most basic, but most important, skill is observing. The difference between good and great scientists is the ability to observe details and to question observations (or lack of observations). Observations may be quantitative—involving a number—or qualitative (i.e., descriptive, without numbers). At the end of class, you and your partner will turn in one copy of this minilab.

Objectives

- Observe details that occur before, during, and after a chemical reaction
- Investigate the properties of a new material

Materials

Resealable sandwich bags
4 % borax solution (sodium borate)
55% white glue solution in water
scissors

rulers
food coloring
beakers or small graduated cups
thermometer

Safety

Wear your safety goggles at all times during the laboratory. Zip the bags to prevent spills.

Hypothesis

What do you think will happen when the glue solution and the borax solution are mixed? Why do you think this will occur? (Write your answer in 1-2 complete sentences.)

Do the Experiment

Procedure

1. Squirt some white glue into a resealable sandwich bag.
2. Add some borax solution to the bag. If you wish, add 2-3 drops of food coloring to the bag.
3. Zip the bag to prevent spills. Mold the substance in the bag with your hands.
4. When a new substance is formed, take it out of the bag and observe it.
5. Record observations before, during and after the experiment. Be as detailed as possible.

Observations

Before:	During:	After:

5. What observations did you forget to make?

6. What physical changes did you observe?

7. Explain what you think happened when the glue and the borax were mixed. What is this type of change called?

8. Why do you think that there are variations in the properties of the glue balls?

Conclusions 3 sentence minimum: What did you learn? What did you enjoy? How could you improve your results?

Group Assessment	Completely	Partially	Not at all
We accomplished our assignment.			
We stayed with our group.			
We praised group members when appropriate.			
We helped all group members when needed.			
We shared our materials.			
We feel all group members contributed to this assignment.			

Comments and suggestions:

Group Signatures:
