Student Lab Handout

Name:_____
Date:_____
Period:_____

Group Members:

_____

Our group's trial is number _____.

My lab job is _____.

Chemical Reactions Lab: Alka Seltzer and Orange Juice

Once you have watched your teacher demonstrate the lab procedure, gather your materials as instructed and begin the lab set-up.

- Follow the directions on pages 65-67 of the handout. *You should have two graphs, one to measure pH and the other to measure temperature*
- Prepare your solution.
- Allow your experiment to run for 30 seconds.
- Add the Alka Seltzer.
- Allow the experiment to run for another 2 and half minutes (for a total of 180 seconds).
- Once you gather your data, save your lab in your teacher's folder (found in the g: drive). Be sure to save your file as the initials of those in your group.
- Use the direction on page 67 to adjust your axis so that your data fits neatly on to a pH graph ranging from 0-7 and a temp graph ranging from 0-25C.
- Select print and print enough graphs for everyone in your group.
- Complete the Part 1 conclusion questions.

What substance(s) were in your beaker? _____

Describe your Alka Seltzer tablet (crushed or whole) when you placed it in the beaker.

_____

Be prepared to share this information with the class tomorrow.

Conclusion Questions Part 1:

1. Define exothermic.

2. Define endothermic.

3. Use one of the above vocabulary words to describe the reaction tested in this lab.

4. Define pH.

5. What are some factors that can influence the rate of a chemical reaction?

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6. What was the lowest pH measured? ___What was the highest pH measured? ___

7. What trends did you observe on your pH graph?

8. What was the lowest temperature measured? _____
   What was the highest temperature measured? _____

9. What trends did you observe on your temperature graph?

Conclusion Questions Part 2: (please attach a piece of lined paper or a typed response)

10. Did any groups' results surprise you? Why? What may have happened in the experiment to cause this?

Now that you have had a chance to examine the other groups' data, attach a written explanation (at least a paragraph) to the following question.

"Based on the results of this lab, what factors influence the rate of a chemical reaction?"

Be sure to explain HOW these factors influence rate of reaction.
Use specific data whenever possible.