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| Name: | Class: | Date: |

Your lab write-up should have the following components:

* Title: Always give your lab write-up a title.
* Question: Experiments are typically started with a question to investigate. When they are, you should include the full question at the start of you write-up
* Purpose: When there is not a question to be answered, but instead a skill or concept to be studied, you should state the purpose of the conducting the investigation at the start of the write-up.
* Hypothesis: If the experiment started with a question, create your hypothesis here. State it in a sentence beginning “If \_\_\_\_\_\_ than \_\_\_\_\_\_ because \_\_\_\_\_\_” and make sure you address ALL questions being asked.
* Materials: List all materials you used. Do this so that someone who wants to reproduce your investigation can use the same tools you used.
* Procedure: Write out the steps you followed to complete the experiment. Do this so that someone reproducing your experiment can do it exactly the same way you did.

Example of procedure: (Chemical and Physical Reactions Lab)

Test 1:

1. Observe each of the 5 different reactants on their own.
2. Set up 6 different test situations: vinegar and baking soda; water and baking soda; vinegar and milk; water and milk; vinegar and eggshell; water and eggshell. (For all samples, except eggshells, use equal parts. For example, 1 spoonful of vinegar to 1 spoonful of milk. For each experiment with eggshells, use 1/8 of an entire eggshell.)
3. One combination at a time, observe each mixture as the reactants are combined.
4. Record observations for each reaction.

Test 2:

1. Dip rod in water.
2. Using the rod, write your initials, (or short word) using water.
3. Repeat step 1 and 2 but use lemon juice instead of water.
4. Hold the paper over a hot plate until the paper heats up
5. Record observations for each reaction.

Test 3:

1. In one trial, combine yeast and warm water.
2. In a second trial, combine yeast, warm water, and sugar.
3. Record observations for each reaction.
* Data and Observations: In this section, include the results of your investigation. This is typically done with tables, graphs, or diagrams. Any tables or graphs should be given an appropriate title.
* Analyze and Apply: In this section, there are typically questions about the experiment considering why certain procedures must be followed along with how the results of the experiment can be used.

Sample Questions: (Chemical and Physical Reactions Lab)

1. Which combinations produced physical changes? Which combinations produced chemical changes? What clues did you use to decide?
2. Is appearance a good clue to the type of change that has occurred? Why or why not?
3. Based on your observations, why do you think recipes call for baking soda?
4. Give one example of a physical change and one example of a chemical change that might occur when preparing a meal.
5. Why did you add both water and vinegar to the baking soda, milk, and eggshell? Why did you write with both water and lemon juice on the paper?
6. Why was it important to measure out a specific amount of water, vinegar, milk, and baking soda?
7. For our experiment, we used 1/8 of a whole eggshell. Is there a better way to measure this sample so that the amounts are more consistent?
* Conclusion: State the results of your investigations. If there was a question at the start of the experiment, state whether your hypothesis was correct and why.