

Name: _____

Title: Enzyme Lab

Directions: Most parts of this lab report are to be written neatly on this sheet. Each part will be checked for completion and stamped the day it is due on this sheet of paper! You will earn full credit for completing each section by the appropriate due date. **At the end you will use this to help you write out your final lab report and then this paper will be turned in for a grade separate from your lab report grade.**

PART A. Testable Question:

Identify keywords & conditions that are necessary to test this question (i.e. variables)

PART B. Developing Background Questions:

Directions: Using the key words you listed in Part A develop some background questions related to the testable question above. Record your questions in the chart below.

Question Word	Possible Question
Why	Why _____?
How	How does _____? How does one measure _____?
What	What cause _____ to increase/decrease? What are characteristics of _____?
When	When does _____ cause _____?
Where	Where do _____?

Stamp:

PART C: Researching Answers to Your Questions

Directions: Circle 2 of your best questions from part B that are most relevant to the testable question. While you read and annotate the attached background information be sure to look for and record the answers to these questions. Record your questions and answer in the chart below.

Questions	Answers
1. _____ _____ _____ _____ _____ _____ _____ _____ _____	1. _____ _____ _____ _____ _____ _____ _____ _____ _____

Stamp:

PART H: Conclusion

Directions: Write your conclusion using the following outline Recall that MEL-Con format is used to write scientific conclusions.

- I. Main Idea (State your hypothesis and whether it was supported or not supported by your experiment)
- II. Evidence (Provide numerical evidence. Be sure to compare different data from different variables)
- III. Link (Make a connection between what you found in your evidence and what you found in your background research)
- IV. Conclusion (Summarize your findings)

Directions: Your conclusion should answer the bolded question below. Each of the numbered questions represents the information that should be in your final version of your enzyme lab conclusion. Answer each question in complete sentences.

What is the effect of temperature on enzyme activity?

1. Main Idea: Restate your hypothesis AND whether it was supported or not supported by the class average data.

2. Evidence:

a. Summarize what was done in the experiment.

b. What was the purpose of using jello and pineapples?

c. How was change in height determined?

d. State the change in height of jello, based on class averages for ALL temperatures.

3. Link:

a. What temperature caused the greatest change in jello height?

b. How much more of a change in height did this temperature cause compared to the temperature that caused the smallest change in height?

c. Was your class data similar to your group data? Explain.

d. What is the difference between active and denatured enzymes?

e. What can be concluded about enzyme activity at each temperature based on change in height of jello? Use terms such as “active enzyme” and “denatured enzyme”.

4. Concluding Statement: Fill in the blanks.

a. Therefore, the enzyme bromelain denatures around _____ °C based on the results of _____ of jello after pineapple juice of _____ were added to it.

Stamp:

*Directions: Rewrite all the answers from questions 1 – 4 into a paragraph below. This will be your **ROUGH DRAFT** of your conclusion. ****Be sure to proofread your work, making sure there are no pronouns and all questions are answered*****

Stamp:

PART I: Final draft

Directions: Using all of the things you have completed from this worksheet write (or type) your final draft neatly in the following order. (Refer to teacher Example) Remember you will turn in your Draft packet and Final Lab write up! It is **2 Separate grades**!!!!

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|--|---|
| 1. Title: (from top of worksheet) | 5. Materials and Procedure: (from Part F) |
| 2. Purpose: (Insert Testable Question from Part A:) | 6. Results: (Insert data table, graph, and data summary from Part G) |
| 3. Hypothesis: (from Part E) | 7. Conclusion: (from Part H) |
| 4. Background Information: (Essay from Part D) | |

