

NAME _____
DATE _____

LAB REPORT #2 REQUIREMENTS

Now that you have finished 6 lab experiments, you will be required to write your second Lab Report. This will be the precursor to a true scientific research paper that you will be required to write in Units 3 and 4. You will have plenty of practice writing Lab Reports in order to prepare yourself to write these papers. Essentially, a Lab Report is your answer to a question you may have. The question you will use to conduct an experiment in which you will attempt an answer. Sometimes, the answers may not be what you expected. That is definitely a good thing. Sometimes, the answers to your questions may lead you to more questions. That, too, is a good thing. Never be afraid to have a different answer than someone else, as long as you have evidence to back up your answer. Follow the steps below to complete your Lab Report, **DUE AT THE END OF THE PERIOD IN LESSON 26**. Make sure you get your teacher's initials where they are called for or you will not receive credit for that portion of the report.

Your final paper must have a title page with your **ORIGINAL** title, your name (as you are the author), the class, the period and the date. It should be typed, double-spaced, with 1-inch margins, in Times or Times New Roman 12 point **ONLY**, and be a **MINIMUM** of 5 paragraphs. A paragraph is at least 2 or more sentences and must include the information from your Lab Report Strand.

Your paper **MUST** be handed in with a **Strand Diagram, Lab Report #2 Requirements** sheet with teacher's initials, the original Lab experiment handout that you filled in, a 1st draft, revisions from your partner in a different color pen or pencil, a 2nd draft, 1 adult edit for spelling, punctuation and grammar, and a final draft typed. You will lose points for each missing piece. Any paper turned in without a 1st draft will be considered the 1st draft, regardless of when it was turned in. (Thus, if you turn in your first draft on the final due date, it will be considered a very late first draft, and you will still be missing a final draft.) All portions of this assignment will be marked off one point for late work that means you are missing your teacher's initials.

STEP 1: Choose the lab you would most like to use to write your second Lab Report. Make sure it is a lab that interested you, as it will make writing the paper a lot more fun for you and you will be more likely to complete it on time.

STEP 2: Using the **Strand Diagram Instructions for Lab Reports** and the data you collected for your lab, complete your **Blank Strand Diagram**. Have your teacher read and approve your strand diagram by initialing your strand diagram **AND** the space below.
_____ teacher initials

STEP 3: Using your completed **Strand Diagram** as your outline, write your first draft. Spelling, punctuation and grammar do not count in this draft. Your ideas do. Make sure you write in full sentences and full paragraphs. Each paragraph in a Lab Report should logically follow the order of the steps you took when conducting your lab experiment. The following is how to write up your Lab Report in essay form from the Strand Diagram:

Paragraph 1= This is your introduction. Just like you thought about your lab experiment before you actually attempted to do it. It should include: your thesis statement/hypothesis, the criteria or what you will use to prove your hypothesis, why you chose those criteria, and a closing sentence.

Paragraph 2= This is the Materials and Methods section. It should include how you will lay out your experiment, the actual components/ingredients, why you will be using them, and a closing sentence.

Paragraph 3= This is also part of the Materials and Methods section. It should include a walk through of all of the actual steps you took to conduct your experiment exactly as they happened and a closing sentence.

Paragraph 4= This is the Results section. It should include the results of the experiment, why you believe you came up with those results, and a closing sentence. It must include your graphs. Your graphs must be referenced in the text, such as treatment with 25% acetone damaged the cell membrane more than 1% acetone (Fig. 2a,b)

Paragraph 5= This is your Conclusion and your opportunity to reflect upon your experiment. It should include: whether or not your hypothesis was correct, questions you still have, problems you encountered even if your hypothesis was correct, if your hypothesis was incorrect you must have at least one new hypothesis, and a closing sentence that wraps all of your ideas up.



You may choose to add more than one paragraph for each section if you have a lot of ideas, but the required content must remain the same.

*This is due at the end of the period for full credit. Make sure you get your teacher's initials below and on your first draft to receive full credit. Make sure you keep your first draft, as you will need to turn it in with your final draft in order to receive full credit on this assignment.

_____ teacher initials

STEP 4: Have a partner revise your first draft using the following technique:

(Make sure your partner is writing directly on your first draft! If your partner makes no suggestions and does not help you to make any changes, you need to get a partner who will. It is your paper and your responsibility to improve. Points will be taken off for no suggestions and no changes because there were no suggestions!)

- 1) In a different color pen or pencil directly on the first draft, check to make sure there is an original title. If not, circle it and write a note that tells them to get one or if you are feeling generous, give them a couple of suggestions.
- 2) In their first paragraph, make sure their thesis/hypothesis is clear and understandable. If it is not, write them a note that tells them it is not clear and explain what isn't clear by asking them good questions that you may have about it.
- 3) In their first paragraph, check to make sure that they have stated the criteria or what they will be using to test their hypothesis and why they have chosen those particular criteria. If they do not, write them a note that tells them they are missing their criteria or that their criteria is not clear. Be sure to explain why it is not clear. Suggest how they might make it better.
- 4) In their first paragraph, make sure they have a closing sentence that wraps up their thoughts and ideas for that paragraph. If they do not, write them a note that tells them to put one in. Make a suggestion as to what they might write.
- 5) In their second paragraph, make sure they have clearly stated the entire layout of their experiment, including the components and ingredients used and WHY they are using them. If they did not do this, write them a note that tells them to do it and give them a suggestion as to how they write it.
- 6) In their second paragraph, make sure they have a closing sentence that wraps up the ideas of that paragraph and leads the reader into the next idea. If they do not, write them a note that asks them to write that sentence. Give them a suggestion as to what to write.
- 7) In their third paragraph, make sure they have clearly and precisely walked you through the actual steps of their experiment. If there is any step that seems unclear or any place you feel a step might be missing, write them a note that tells them to do it and give them a suggestion as to how they write it.
- 8) In their third paragraph, make sure they have a closing sentence that wraps up the ideas of that paragraph and leads the reader into the next idea. If they do not, write them a note that asks them to write that sentence. Give them a suggestion as to what to write.
- 9) In their fourth paragraph, make sure they have told the results of the experiment and why they believe they came up with those results. If they did not do this, write them a note that tells them to do it and give them a suggestion as to how they write it.
- 10) In their fourth paragraph, make sure they have at least 2 pieces of evidence from their lecture notes, or their readings that support their results and that they have made clear HOW the evidence supports the results. If any of this is missing, write them a note that asks them to do whatever is missing. Give them a suggestion as to how to write it.
- 11) In their fourth paragraph, make sure they have a closing sentence that wraps up the ideas of that paragraph and leads the reader into the next idea. If they do not, write them a note that asks them to write that sentence. Give them a suggestion as to what to write.
- 12) In their fifth paragraph or their closing paragraph, make sure they tell whether or not their hypothesis was correct. If they did not, write them a note that asks them to do this. Give them a suggestion as to how to write it.
- 13) In their fifth paragraph or their closing paragraph, make sure they ask any remaining questions they may have and attempt an answer. If they did not, write a note that asks them to do it. Make sure they have stated any problems they encountered even if their hypothesis was correct. If they did not, write them a note that asks them to do it.
- 14) In their fifth paragraph, make sure that if their hypothesis was incorrect, they have given at least one new logical hypothesis. If they did not do this, write them a note that asks them to do it. Give them one suggestion for a new hypothesis that would make sense given what occurred in their experiment.

15) Finally, in their fifth paragraph, make sure that they have written a closing sentence. If they did not, write them a note that asks them to do this.

When your partner has finished revising your paper, have them write at the top of your paper "Revised by and sign their name." Then have them sign their name below.

_____ student signature

STEP 5: Based on the suggestions of your partner, write your second draft. Your second draft must include the changes that your partner suggested. When you have completed your second draft, show the first draft with the revisions and your second draft to your teacher and have your teacher initial below to show that it was done on time.
 _____ teacher initials

STEP 6: In a different color pen or pencil, have one adult edit your paper for spelling, punctuation and grammar mistakes directly on your second draft. This adult could be a parent/guardian, teacher, friend or community member. However, it can not be your teacher for this class. When they are done, have them sign the top of the first page of your second draft. Then have them sign and print their name below.

_____ adult's printed name

_____ adult's signature

Show your teacher your edited second draft, along with your first revised draft. Get your teacher's initials below to show that it was done on time.
 _____ teacher initials

STEP 7: Type your paper. Make sure to follow the typing requirements at the top of this page. When you are done typing, print it out. Staple everything together in the following order: this requirements sheet on top, typed draft, second draft, first draft, strand diagram. Have your teacher initial below to show that she received it on time. Turn it in.
 _____ teacher initials

GRADING PROCEDURE: YOUR GRADE:

Strand Diagram	4 points	_____
First Draft	6 points	_____
Revisions	4 points	_____
Second Draft	6 points	_____
Adult Edit	4 points	_____
Final Draft	6 points	_____
Rubric Grade	6 points x 2	_____
Total possible	<u>42</u>	YOUR _____
		TOTAL

To figure out your grade, divide your total points by the total points possible and multiply by 100. This will give you a percentage. See table below for grade percentages.

A- to A+	90% - 100%
B- to B+	80% - 89%
C- to C+	70% - 79%
D- to D+	58% - 69%
F	57% and below

