

HOW TO WRITE A LAB REPORT

1. Lab reports should be typed using standard 12-point font and 1 inch margins.
2. Use a similar format to what is presented below, including titles for each section, numbering and indenting.

Title: What is the name of the lab?

I. Purpose and Hypothesis

Clearly state the reason for doing the lab. Your hypothesis should include a prediction of what will happen and any background information that led you to that prediction. (I believe X will happen because I know A and B).

II. Procedure

1. Written in writers own words.
2. Detailed enough to be followed by others.
3. Explains how to set up the lab and to collect data.
4. Formatted in step by step fashion, as shown here. Not written in paragraph form.

III. Data

Present your data in an appropriate format for the lab (table, list of observations, line graph, bar graph). Data should be neat, complete, and include titles on all graphs or tables. You should also include units with any numerical data.

Since you must use a separate sheet of paper for this assignment, attach the data to the back of the lab, and refer to it in the data section with the line "See attached data".

Note: The lab handout you are given to do the lab is your data for this assignment. If you turn in a poorly written or incomplete original lab handout, you will lose points.

IV. Results and Conclusion

Your results and conclusion section should include the following in paragraph form.

- A. A clear discussion of the results obtained in the lab, including examples from the data.
- B. Clearly state whether or not the hypothesis is supported by the data.
- C. Clearly and accurately explain the scientific principles that produced the results (scientifically why the hypothesis was right or wrong).
- D. Clearly state what was learned in the lab.
- E. Answer all discussion questions with well thought out and complete sentences. Note: Answers to discussion questions should be in paragraph form and numbered.

DISCUSSION QUESTIONS:

1. Did you find this assignment easy or hard? Explain.
2. Is this a life change that you feel you could or should adopt? Explain.

Sample Lab Report:

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Biology Class
June 30, 1668

Does Spontaneous Generation Occur? [Your lab must have a title.]

I. Purpose and Hypothesis

[You must have these section titles with Roman numerals.]

In this lab I will test to see if maggots appear in rotting meat through spontaneous generation (meaning they appear out of nothing) or if they are somehow placed in the rotting meat by flies. I do not think that spontaneous generation can possibly take place. I think that all living things come from other living things and cannot appear from non-living matter. I also know that maggots are the larvae of flies. Therefore, I hypothesize that maggots will only appear in rotting meat that is allowed direct contact with flies.

II. Procedure

[Written in your own words with enough detail that anyone could pick up your lab report and do the lab exactly the same way you did it.]

1. I obtained six identical glass jars, large enough to place objects into them.
2. Into two jars I placed a ½ lb piece of fresh beef acquired from the butcher.
3. Into two jars I placed a ½ lb freshly killed fish.
4. Into the last two jars I placed ½ lb of fresh chicken meat.
5. I carefully placed some thin gauze over the opening of one of the jars containing beef, one of the jars containing fish, and one of the jars containing chicken. The other three jars were left uncovered.
6. I placed all 6 jars in the same location outside my house, where flies could have free access to them.
7. Each day for one week I made observations of the jars, to see if flies were found around the jars, or if maggots had appeared inside the meat.

III. Data

See attached data.

[You MUST write the sentence above since you will have your data tables stapled to the back of the lab.]

Day		Covered Beef	Covered Fish	Covered Chicken	Uncovered Beef	Uncovered Fish	Uncovered Chicken
1		flies crawling on meat / no maggots	flies crawling on meat / no maggots	flies crawling on meat / no maggots	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots
2		flies crawling on meat / no maggots	flies crawling on meat / no maggots	flies crawling on meat / no maggots	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots
3		maggots produced	maggots produced	maggots produced	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots
4		maggots produced	maggots produced	maggots produced	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots
5		maggots produced	maggots produced	maggots produced	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots
6		maggots produced	maggots produced	maggots produced	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots
7		maggots produced	maggots produced	maggots produced	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots	flies on gauze, cannot touch meat / no maggots

IV. Results and Conclusion

[You should write a summarizing paragraph whether there are discussion questions or not. If there are discussion questions, answer them afterwards in this section in complete sentences, numbered by question.]

I observed that the jars that were covered with gauze attracted flies just as well as the jars without gauze and that beef, fish and chicken attracted flies equally. The only difference was that the flies could not actually come in contact with the meat when there was gauze in place. When the flies could not contact the meat directly, no maggots would appear in the meat. However, in the jars where the flies were able to land on the meat directly, maggots appeared after just three days. From this data I was able to conclude that maggots do not spontaneously generate from the rotting meat, but are somehow placed there directly by the flies that land on the meat. This makes sense, since I already know that maggots are fly larvae. It would appear that the flies must lay eggs on the rotting meat, and the maggots hatch a few days later. This supports my larger hypothesis that spontaneous generation does not take place. Living things cannot come from non-living matter.

Discussion Questions:

- 1.
- 2.
- 3.