

Lab Reports: Posters

Report on your investigation. Follow the rubric below to ensure that you get the highest grade possible.

50 Points Total

Parts of Presentation	Excellent (Highest possible)	Satisfactory	Fair	Needs Work (0 points)
Explanation 5pts	Has Heading: "Explanation" Explain the topic being investigated in three sentences.	Explains things not relevant to the investigation or does not explain enough about the topic. Fewer than three sentences	Has an explanation, but vital parts are missing. Only 1-2 sentences.	Not Given
Question 2.5pts	Include a Heading. Specific: Identified variable to be tested and written as a complete sentence with a question mark.	Clear: Identified variable to test, but incomplete sentence.	Not Clear: Mentions a question but not a variable.	Not Given
Hypothesis 2.5pts	Include a Heading. Clearly stated what was predicted to happen. If-then statements are preferred. Includes reasoning (e.g., because..., the reason for this is..., etc.). Written in complete sentences and answers questions.	Mentioned an explanation, but it is not clear, or the reasoning is missing.	Does not relate much to the question and lacks supporting reasoning.	Not Given
Design Set-up 5pts	A diagram or written step-by-step instructions are presented with a heading.	The setup was satisfactory, but readers still have questions on amounts, time, etc.	The setup is haphazard, and the labels are poorly done.	Not Given
Variables 5pts	Heading and all variables identified: Independent Variable: The variable that was changed and evidence that only one thing was changed for the experiment. Dependent Variable: What was measured, including the units. Controls: things that were kept the same to ensure a fair test.	Missing one element: - Listed only one variable and not the other. - Or listed variables, but not correctly. - Or units not included. - Or only changed one thing, but the data was poor or not measured effectively.	Missing two elements: The variable was not clearly identified, or it changed to represent more than one variable during experimentation.	Variable not identified clearly.

Data table 5pts	Include a Heading. Data is in a table and listed correctly with an independent variable as the left column and a dependent variable as the right column.	The data table is there with the correct data, but not in the correct columns.	Data is there, but not organized in a table, and it is not clearly stated.	Not Given
Graph 10pts	Includes "Graph" heading. Graph has a title (e.g., Density vs Salinity), and labels on x-y, correct units on both axes. Data and scale are correct	Missing 1-2 elements: - Heading - Title - Labels - Units - Scale - Data plotted correctly	Missing 3-4 elements: - Heading - Title - Labels - Units - Scale - Data plotted correctly	Not Given
Analysis 5pts	Include a Heading. State the pattern(s) in the data, if any exist, or note that there is no pattern. Use words like increase, decrease, or describe the trend, such as 'the data showed that...' or 'the relationship was indirect, direct, proportional,' etc.	Identifies a pattern, but it is incorrect. Uses words like up and down, or it went sideways, or other non-scientific language.	Did not use patterns but attempted an answer and had the heading.	Not Given
Conclusion 5pts	Heading. 1. Answered the original question and explained whether the hypothesis was right or wrong. 2. Observations made that contributed to learning more about topics 3. Includes reasons or logic related to the content learned in the lab and class. 4. Identified any problems with the data and/or what steps to take next to improve it. 5. Writes at least two questions about what still needs to be answered.	Answered the original question but did not explain whether the hypothesis was correct or incorrect. Or missing 1-2 elements: Does not record observations, include reasoning, identify existing problems, specify next steps, suggest a better approach to conducting the investigation, or record observations. Or Has fewer than two questions that still need to be answered.	Has an answer, but it is unclear or does not relate to the hypothesis. OR missing 3 or more: Does not record observations, include reasoning, identify existing problems, specify next steps, suggest a better approach to conducting the investigation, or record observations. AND Has fewer than two questions that still need to be answered.	Not Given
Real-World Application 5pts	Heading: Write 3-4 sentences explaining how this application relates to the real world and how it can enhance the understanding of the topic.	Real-world application was linked to the topic, but not to how it enhances understanding.	Real-world application was there, but not very relevant to the topic.	Not Given

Vocabulary Words to Use:

Inferences, Conclusion, Quantitative, Qualitative, Observations, Increase, Decrease, Direct relationships, Indirect Relationship, Variables, Independent, Dependent, Controls, Graphs, Charts, Data, Fact, Relationships, Patterns, Trends, Systems, Analyze

LAB WRITING GUIDE

Title: Name the topic.

Explanation: What is the topic you are studying?

- 2-3 complete sentences

Question: What is your question?

- 1 complete sentence with “?”

Hypothesis: Show what type of relationship you think you will discover.

- 1 complete sentence, such as:

"If ____ [I do this] ____, then ____ [this] ____ will happen."

Variables:

Identify and label each-

- Independent: What you change (x-axis)
- Dependent: What you measure (y-axis)
- Controls: What will you try to keep the same to make it fair?

Set-up: Diagram or description of how you will test and conduct your experiment.

(Looking for diagrams with annotations or steps... 1. You do this. 2. You do this...)

Data Table: (sometimes there are more than two columns)

Independent Variable _____ (unit)	Dependent Variable _____ (units)
Cont.	

Graph: The X-axis is independent data, and the Y-axis is dependent. This will show whether or not there is a relationship between the two.

- Label each axis and title it. Include units on each axis. Use the correct scale for x and y. Plot the correct points. (10pts).

Analysis: Identify the relationship in the graph, if one exists.

1 complete sentence.

Conclusion: 3-6 sentences restating your question with the answer your data provided. Includes reflection of process (mistakes, changes, improvements, etc.)

Includes a tie to the REAL WORLD. (10pts)