

Chemistry Lab Report Rubric – 100 points

Title Page – typed or neatly printed on a full sheet of paper in the following format:

↑ ↓ (1 inch margin)	Your Name	2 points
←→	Class Period: ____	2 points
(1 inch margin)	Date of Lab	2 points
	Lab Partner: _____	2 points
	Lab Title (centered on page)	<u>2 points</u> [10 points]

Page 1 [15 points]

- **Purpose** – Identify the problem which we are seeking to solve by conducting the experiment. This can be written in the form of a statement or question.
- **Hypothesis** – State your proposed solution to the problem (what you believe will be the outcome of the experiment) using an 'If..., then..., because...' format.
- **Justification for Procedure** – After reading the procedure carefully, explain why it is valid in terms of the scientific method.

SCORING (points may be deducted for missing headings, incomplete sentences, or sloppy work):

- typed or neatly written **in complete sentences**
- 1 inch margins
- Subject headings are underlined or in boldface type
- Subject content will be scored according to the following scale:

5	4	3	0
<i>well thought-out; complete; correct or reasoning is justified; evidence of deep thought</i>	<i>mostly correct; mostly complete; significant effort is evident</i>	<i>incorrect or not justified; evident lack of effort</i>	<i>missing</i>

Page 2 [15 points]: Data and/or Observations Table; Results Table

- Appropriate data and/or observations are recorded; results are documented in a table or list.
- Tables or lists are correctly labeled (headings; units of measure)
- Decimal places are handled appropriately based on measuring devices and significant digit rules.

SCORING (points may be deducted for sloppy work):

5	4	3	0
<i>always</i>	<i>usually</i>	<i>occasionally</i>	<i>missing</i>

Note: Data tables may be typed in advance, but must be filled in by hand during the lab.

Page 3 [15 points]: Calculations

- Each calculation is clearly identified and appropriate formulas are written before showing work.
- Work is shown for each calculation and significant digit rules are appropriately followed.
- Accuracy – Answers are correct.

SCORING (points may be deducted for sloppy work)

5 <i>always</i>	4 <i>usually</i>	3 <i>occasionally</i>	0 <i>missing</i>
---------------------------	----------------------------	---------------------------------	----------------------------

Note: Other than headings (see bullet one) this page may NOT be typed!

Page 4 [15 points]: Graphing

- includes appropriate title and labeling (of axes) – *this includes headings and units of measure*
- graph type and scales (of axes) are appropriate for data
- data is correctly graphed, and any required work is correctly shown directly on the graph

SCORING (points may be deducted for sloppy work)

5 <i>always</i>	4 <i>usually</i>	3 <i>occasionally</i>	0 <i>missing</i>
---------------------------	----------------------------	---------------------------------	----------------------------

Note: This page must be completed by hand – printed versions using a computer or graphing calculator will not be accepted.

Page 5 [15 points]: Post-Lab Questions

- Each question is rewritten, or the answer begins by rephrasing the question as a statement.
- Independent thinking and depth of thought are evident.
- Accuracy – Answers are complete and correct.

SCORING (points may be deducted for sloppy work and/or incomplete sentences)

5 <i>always</i>	4 <i>usually</i>	3 <i>occasionally</i>	0 <i>missing</i>
---------------------------	----------------------------	---------------------------------	----------------------------

Note: This page may be typed, however, duplicate copies among several students will not be accepted.

Page 6 [15 points]: Conclusion and Error Analysis

- The first paragraph is a summary of student learning and should include a discussion of core concepts and vocabulary. It should provide clear evidence that the student understands the chemistry involved in the experiment. This is NOT a summary of the procedure.
- A second paragraph describes how the student's results relate to the core concept(s); whether or not the data supports the student's hypothesis; and what conclusion(s) he/she has reached based on the results.
- A final paragraph describes how procedural error may have produced unreliable data and invalid results.

SCORING (points may be deducted for sloppy work and/or incomplete sentences)

5 <i>well thought-out, valid reasoning, deep understanding evident</i>	4 <i>some errors in reasoning, fair understanding evident</i>	3 <i>incomplete, shallow thought insufficient effort</i>	0 <i>missing</i>
--	---	--	----------------------------

Note: This page may be typed, however, duplicate copies among several students will not be accepted.

Chemistry Lab Report Rubric

Name: _____

Lab: _____

Page	Requirement	Score			Comments, Additional Points or Deductions	
Title	Name	2	1	0		
	Class Period	2	1	0		
	Date	2	1	0		
	Lab Partner	2	1	0		
	Title	2	1	0		
One	Purpose	5	4	3	0	
	Hypothesis	5	4	3	0	
	Justification for Procedure	5	4	3	0	
Two: Data & Results Tables	Appropriate Data / Results	5	4	3	0	
	Labeling (Headings / Units)	5	4	3	0	
	Decimal Places / Sig Figs	5	4	3	0	
Three: Calculations	Identification / Formulas	5	4	3	0	
	Work Shown / Sig Fig Rules	5	4	3	0	
	Accuracy	5	4	3	0	
Four: Graphing	Labeling – Title and Axes	5	4	3	0	
	Graph Type and Scales	5	4	3	0	
	Graph Work	5	4	3	0	
Five: Questions	Question Identification	5	4	3	0	
	Depth of Thought	5	4	3	0	
	Accuracy	5	4	3	0	
Six: Conclusion and Error Analysis	Summary of Learning	5	4	3	0	
	Conclusion	5	4	3	0	
	Error Analysis	5	4	3	0	
Point Subtotals:						
Total Points:		Percent:			Final Grade:	