

LAB REPORT TEMPLATE

Title:

- *A brief concise, yet descriptive title*

Statement of the Problem:

- *What question(s) are you trying to answer?*
- *Include any preliminary observations or background information about the subject*

Hypothesis

- *Write a possible solution for the problem*
- *Make sure this possible solution is a complete sentence*
- *Make sure the statement is testable*
- *The statement should reference the independent and dependent variables: such as “The plant group receiving (independent variable i.e. fertilizer) will (dependent variable i.e. produce more fruit) than the plants that did not receive (independent variable i.e. fertilizer)”*

Materials:

- *Make a list of all items used in the lab*

Procedure:

- *Write a paragraph or a list which explains what you did in the lab.*
- *Your procedure should be written so that anyone else could repeat the experiment.*

Results:

- *This section should include any data tables, observations, or additional notes you make during the lab.*
- *Although some students may wish to recopy original data: it is important to always preserve the original*
- *You may attach a separate sheet(s) if necessary.*
- *All tables, graphs and charts should be labeled appropriately.*

Conclusions:

- *Accept or reject your hypothesis*
- *EXPLAIN why you accepted or rejected your hypothesis using data from the lab.*
- *Include a summary of the data – averages, highest, lowest, etc. to help the reader understand your results.*
- *List one thing you learned and describe how it applies to a real-life situation.*
- *discuss possible errors that could have occurred in the collection of data (experimental errors)*

LAB REPORT FORM

(Name) _____ (Date) _____

Title:

Purpose/Problem

Hypothesis:

Materials/Supplies:

Procedure:

Observations and Data:

Conclusion/Summary:

Conclusion Do's and Don'ts

- **Do** draw an illustration or a graph, if appropriate.
- **Don't** list the data again, but summarize, discuss, and analyze the data.
- **Do** explain why your hypothesis was correct or incorrect from your observations or data.
- **Don't** give the procedure again, but **do** point out possible sources of error.
- **Don't** forget to break up your ideas with more than one paragraph. Your conclusion is an essay.

Helpful format for writing a conclusion

(length of blank lines does NOT indicate the length of your entries – additional sentences are encouraged)

This lab (experiment) investigated _____.

In order to study the problem we _____.

My results showed _____, thus proving my hypothesis was (correct/incorrect).

I believe the results are (accurate/inaccurate) because _____.

In order to further investigate this problem, next time I would _____.

The above was adapted from Cheryl Randall's Science Lab Report found at <http://donnayoung.org/apologia/lab/labhow~cr.htm>

LAB REPORT RUBRIC

LAB REPORT ITEMS	Points	Points Received
PROBLEM	10	
HYPOTHESIS (Independent & dependent variables included)	10	
MATERIALS & PROCEDURE (All steps clearly stated)	15	
OBSERVATIONS AND DATA (Measurement units identified)	20	
GRAPHS AND/OR ILLUSTRATION (Title, axes labeled, data points plotted)	20	
CONCLUSION (Answers the problem, explains results)	15	
NEATNESS	10	
TOTAL GRADE	100	

Safety Contract

PREPARE FOR LABORATORY WORK

- Study laboratory procedures prior to class.
- Never perform unauthorized experiments.
- Keep your lab bench organized and free of apparel, books, and other clutter.
- Know how to use the safety shower, eye wash, fire blanket, and first aid kit.

DRESS FOR LABORATORY WORK

- Tie back long hair.
- Do not wear loose sleeves, as they tend to get in the way.
- Wear closed toed shoes with tops.
- Wear lab coats or aprons during all laboratory sessions.
- Wear safety goggles during all laboratory sessions.
- Wear gloves when using chemicals that irritate or can be absorbed through skin.

AVOID CONTACT WITH CHEMICALS

- Never taste or "sniff" chemicals. Never draw materials in a pipette with your mouth.
- When heating substances in a test tube, point the "mouth" away from people.
- Never carry dangerous chemicals or hot equipment near other people.

AVOID HAZARDS

- Keep combustibles away from open flames.
- Use caution when handling hot glassware.
- When diluting acid, always add acid slowly to water. Never add water to acid.
- Use glycerin and twist slowly at the base when inserting glass tubing through stoppers.
- Turn off burners when not in use.
- Do not bend or cut glass unless appropriately instructed by teacher.
- Keep caps on reagent bottles. Never switch caps.

CLEAN UP

- Consult teacher for proper disposal of chemicals.
- Wash hands thoroughly following experiments.
- Leave laboratory bench clean and neat.

IN CASE OF ACCIDENT

- Report all accidents and spills immediately.
- Place broken glass in designated containers.
- Wash all acids and bases from your skin immediately with plenty of running water.
- If chemicals get in your eyes, wash them for at least 15 minutes with an eye wash.

I, _____, agree to (a) Follow the teacher's instructions, (b) protect my eyes, face, hands, and body during laboratory, (c) conduct myself in a responsible manner at all times in the laboratory, and (d) abide by all of the safety regulations specified above.

Print Name _____ Signature _____

_____ Date _____

Parent's/Guardian's Signature _____ Date _____