**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 than anyone else could repeat the experiment.*

Results and Observations:

* *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 orginal*
* *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)*

**MIDDLE SCHOOL 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*

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**MIDDLE SCHOOL 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 \_\_\_\_\_\_\_\_\_\_\_\_\_