

Middle School Science Lab Report Guidelines

I. **Question/Problem:** A scientific question written to tell how the factor you change (**independent variable**) affects your results.

ex. What is the effect of the amount of sunlight on the height of African violet plants?

ex. What is the relationship between the angle of a ramp and the speed of a car?

II. **Background Research:** research about the topic. Helps you to make your hypothesis. (Optional)

III. **Hypothesis** – a prediction of what you think the answer to the question will be (written as an “If ..., then...” statement)

ex. If the amount of sunlight increases, then the plant height increases.

-or- If the the amount of sunlight increases, then the plant height decreases.

ex. If the angle of a ramp increases, then the speed of the the car increases.

-or- If the angle of a ramp increases, then the speed of the car decreases.

IV. **Materials:** a list of the supplies that you needed to test your hypothesis – needs to be specific; include **how many** and **how much**

V. **Procedure:** step-by-step explanation of how to test the hypothesis
(**steps should be numbered and listed – not in paragraph form**)

VI. **Observations:** the data you collect; observations (*qualitative and quantitative*) you make by hearing, smelling, tasting, feeling, and seeing (including measurements)

- Use **tables, graphs**, charts, pictures, etc. to make data easier to read

VII. **Conclusion: (written in paragraph form)**

1. Restate your hypothesis and tell whether or not your data supports it.
2. Answer the question to the problem using your data. Include specific data with your answer. (ex. average heights of plants in cm)
3. Share any problems you encountered while conducting the experiment.
4. Identify changes you could make next time.
5. Your reflections about the experiment

Ex. If the amount of sunlight increases, then African violet plant height increases.

The data supported my hypothesis. The plants that received more sunlight grew an average of 2.5cm more than the plants that received less sunlight. If this experiment was done again, we could study different types of plants. From this experiment I learned the best conditions in which to grow African Violet plants.

Lab Report Format:

*12-14 pt font

*Use rulers on data tables and graphs

*Headings should be bold-faced and each section should be separated by a space