

## LAB REPORT GUIDELINES

You will do several lab reports or portions of lab reports over the course of the school year. These reports must be written in the format outlined below

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TITLE OF THE LAB  
Student's Name  
Date  
Class and Period Number

### I. Question

A well-written question that covers the overall purpose of the lab.

### II. Hypothesis

A formal statement of what you think the outcome of your work will be. **Do not use** passive words such as "I think," "I believe," "might," or "maybe."

### III. Materials & Procedures

The materials list should be a detailed list of everything used in the investigation. Include quantities and use the correct scientific term for equipment.

Provide a numbered list with complete, REPRODUCIBLE, step-by-step instructions written in past tense. These procedures must include the manipulated (independent) variable, responding (dependent) variable, controlled variables, and an experimental control (if applicable). In addition, these procedures should only refer to the collection of data. For example, you do not need to refer to gathering materials, calculating averages, creating graphs, etc.

### IV. Data

Include data tables of all raw data collected during the investigation. This can be quantitative data (numeric) as well as qualitative data (observational). Do not include calculations in this section. These data tables can be drawn by hand neatly with a ruler. Computer generated data tables are also acceptable.

### V. Analysis

This section includes many parts. Depending on the investigation, not all of these parts will always be necessary. General contents for any analysis section include:

- Calculations. Calculations can be in a "calculations table". You must provide an example for each different type of calculation you do.
- Charts or graphs that present the data in a way that best illustrates the relation between the variables.
- A written explanation of the results. What happened to the responding variable when the manipulated variable was changed? You must include actual numeric or observational data in your explanation. What is your interpretation?
- Written discussion about sources of error and validity of the data. (Validity: An attribute of an investigation that describes the degree of confidence that data collected and logical inferences are accurate representations of the phenomena being investigated)

### VI. Conclusion

- This is a summary of the investigation that refers back to both the original question and the hypothesis. Refer to the handout "Recipe for a Good Conclusion" for help in writing a good conclusion.

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### Lab Format and Conventions

- Lab must have descriptive title.
- Lab report is typed.
- Sections are labeled and in the correct order.
- All tables and graphs are neat and properly labeled.
- All example calculations are typed or neatly handwritten in ink.
- Lab report uses correct grammar and spelling.
- The voice of a lab report is formal and void of any references to "I," "we," "our," or any pronouns expressing personalization.