

Title

Purpose / Question / Problem (Learning Target):

Statement of why we are doing this lab. Question or problem to be solved by experiment or investigation.

***Gather and organize information (research):
THINK!***

Hypothesis: A hypothesis is an “IF we do ..., THEN...will occur” statement using prior knowledge / observations, research to predict the outcome of the purpose / question/ problem. A hypothesis is a tentative statement that proposes a possible explanation to some phenomenon or event. A useful hypothesis is a testable statement that may include a prediction. Include text reference (page number)

Materials: List all materials used for the lab. For example, 250ml beaker, graph paper.

Procedure:

1. Numbered step by step instruction in complete sentences of what was done to complete the lab.
2. Drawings and other may be included.

Data / Results / Observations:

1. Data collected, graphs, measurements (SI units),
2. What did your senses “see”, drawings, etc.
3. Include notes (descriptive captions) to help record the HISTORY of the experiment

Analysis:

- Level 1: Introductory sentence(s) which define or explain concept(s) stated in purpose.
- Level 2: Sentences which explain the relationship between the variables measured in the lab. Clearly describe what was done in the lab to accomplish the purpose and test the hypothesis.
- Level 3: Interpret data/results/observations to clearly determine the relationship between the variables and how the data relates to the purpose and hypothesis.
1. **USE SPECIFIC REFERENCES TO THE DATA – NUMBERS, OBSERVATIONS!**
 2. **USE THE TEXT TO DISCUSS YOUR RESULTS**
- Level 4: Extended response which demonstrates a thorough understanding of the lab. The discussion must be directly related to the purpose.
- Extensions may include:
1. Additional computations and thoughts about the data supported by the text or outside resources.
 2. Classify, compare and contrast, recognize cause and effect, relationships between variables.
 3. Evaluate possible sources of error (materials, procedure, data collection, other).
 4. Demonstrate “next level” thinking by identifying and explaining how this lab/data can be transferred to other applications

Conclusion: Conclusions must be written in paragraph form. Do not number or bullet a conclusion.

1. Topic sentence: Restate the purpose / question/ problem. (1 sentence)
2. Briefly summarize results (1-2 sentences)
3. Tell whether you accept or reject the hypothesis based on the results from this experiment and explain why. (1-2 sentences)
4. What did you learn in this lab? (2+ sentences).

Guidelines for Data Tables and Graphs

Data Table

1. Title
2. Variables labelled
3. Ruler
4. Neat
5. Should translate directly to a graph
6. Example

Weather Data

Date	Temperature °C	Humidity %	Air Pressure (mm Hg)
10/17/16			
10/18/16			

Graphs

1. Title which identifies variables from lab
2. Axes correctly labelled
 - a. The independent variable is graphed on the y axis
 - b. The dependent variable is graphed on the x axis
 - c. Units in parentheses
3. A ruler is used so...
 - a. The axes are straight
 - b. The intervals are evenly spaced (like a number line)
 - c. Data must be placed where it occurs on the number line
4. Appropriate scale is used. The scale should include a range above and below the measured variables so their relative position can be seen.
5. Color is used when appropriate
 - a. Bar graphs
 - b. Multiple lines
6. A key or legend is used when necessary
7. Examples



