# Title

Name Date Period

Purpose / Question / Problem: 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 <u>all</u> 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 descriptive captions to help record the HISTORY of the experiment

### Analysis:

- Level 1: Definition level question.
- Level 2: General question about the relationship between variables identified in the purpose.
- Level 3: Interpret data/results/observations to clearly determine the relationship between the data and

the purpose. <u>USE SPECIFIC REFERNCES TO THE DATA – NUMBERS, OBSERVATIONS!</u>

- Level 4: <u>Extended</u> response which demonstrates a thorough understanding of the lab. Include the following:
  - 1. Additional computations and thoughts about the data.
  - 2. Must be directly related to the purpose.
  - 3. Classify, compare and contrast, recognize cause and effect, relationships between variables.
  - 4. Evaluate possible sources of error (materials, procedure, data collection, other).
  - 5. Demonstrate "next level" thinking by identifying how this lab/data can be transferred to other applications

### Conclusion:

- 1. Conclusions must be written in paragraph form. Do not number or bullet a conclusion.
- 2. Restate the purpose / question/ problem.
- 3. Tell whether you accept or reject the hypothesis based on the results from this experiment.
- 4. What did you learn in this lab?
- 5. Now I wonder? (What are possible further experiments or questions that you could ask based on this experiment?)