Name **Title** Date Period

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.
 - USE SPECIFIC REFERNCES 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:

- 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,
- 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

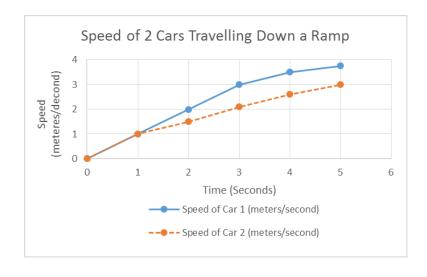
- 1. Title
- 2. Variables labelled
- 3. Ruler
- 4. Neat
- 5. Should translate directly to a graph
- 6. Example

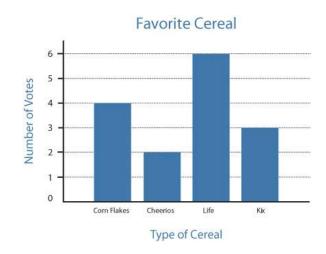
Weather Data

Date	Temperature °C	Humidity %	Air Pressure (mm Hg)
10/17/16			(9)
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 is 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. Colored is used when appropriate
 - a. Bar graphs
 - b. Multiple lines
- 6. A key or legend is used when necessary
- 7. Examples





RMS Lab Format