**Lab write-up cheat sheet**

The four underlined bold items are what is included as a formal write-up -(use these exact headings):

The four sections should be completed as a best effort written or typed document

**Attached to this document are any of the following items:**

Any documents that pertain to the lab must be included. These would include brainstorming sheets, possible research questions, procedure papers, data collection sheets, rough draft write-ups or anything similar.

Write-up sections in detail:

***Purpose of investigation***

Why did you do this lab? Write a sentence or two about the intention of this lab.

***Hypothesis***

(make sure it is in the format of: If (dependent variable) is effected by (independent variable), then this will be the result found in the lab investigation.

OR: If (independent) effects (dependent), then

***Results of investigation***

Write several sentences that explain each of the trials or groups of data that you collected in the lab. Be sure to average your results if you did multiple trials. An example sentence might be: “The apple stayed white with no brown spots for the entire 25 minutes.” You need a similar sentence for each set of data. Below these sentences should be your data table. This is the format of a data table

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If appropriate to the data a graph will go below this. The graph should include proper labels and titles.

***Data Analysis***

This is the most important section of the write-up. This should be a detailed, scientific, logical explanation of what your data means. The first sentence should state whether the hypothesis was supported or not supported. DO NOT use words like proven, right or correct as we cannot do that in science. This should include explanations of why you think the data is the way it is. This might look like: “The control apple turned brown because of enzymatic action. When apples are cut the enzyme phenolase is exposed to oxygen. The oxygen combines with the phenolase. This reaction produces a brown pigment called melanin. The longer the apple is exposed to oxygen, the more melanin produced.” The analysis should include explanations of all the data collected.

The next section of analysis is to list errors or inaccuracies that happened during the experiment.

The third section of analysis includes ways to improve the lab in order to give you more confidence in the data you collected. **You do not state that you would not error. This section should include nothing from the error section.**

Brainstorming Thinking Map

CAUSE EFFECT BECAUSE

Explanation of effect of cause

Statement of what you are doing in lab

Results of what happened

LAB

Problem

These boxes would be included in the results of investigation This box is the data

as they summarize the results of the lab. analysis because it

explains the why of the effect.