**Data and Observations & Data Analysis and Interpretation Sections
Using Descriptive Statistics**

\_\_\_ (2 pts) Experimental Recap

1 to 2 paragraphs, summarizing your experiment, the variables, hypothesis, etc. (Remind the math teacher about what you are doing. This is NOT part of your final paper in any way.)

\_\_\_ (3 pts) Data and Observations

This is where you will directly report the raw data, converted data with a single sample calculation shown where appropriate, along with any observations you made during the experiment which may have impacted the quality of the results. Place observations in a table format as close as feasible to the data that they describe. Include photographs of the experiment in progress (either before and after pictures OR pictures of the experiment in chronological order, whichever is appropriate). You should show any formula used to calculate values shown in your data table with all variables defined. This section does not interpret, compare, or contrast the data. It does not have conclusions

Data Analysis & Interpretation

Use this section to calculate and report any statistical analysis you have performed with your data. This is where graphs, modeling, curve fittings, and/or statistical tests appear. Include a sample of all calculations for determining a derived value used. This should be easy to understand and follow.

\_\_\_ (10 pts) Descriptive and Another Statistical Treatment

1. Include Plot(s) of the data (histogram, box plots, line graphs, etc.).

2. Comment on any trends, patterns, etc. present.

3. State Mean & standard deviation of each set, if appropriate.

4. Find a model, if appropriate.

Some things to keep in mind:

* Good plots with labels and scales marked
* Consistent uniform scales throughout (unless compelling reason)
* Special attention paid to discussion of trends and patterns

\_\_\_ (10 pts) Interpretation

Summary of results of analysis. So what’s the bottom line for the reader? In the Data Analysis & Interpretation section you are to clearly state “what” the numbers mean. ALL OF THEM!

NOTE: The conclusion will detail “Why” scientifically your results could/would/should have happened.

\*\* Incorrect math or incorrect interpretation of results will result in a grade NO HIGHER than a C.