SF Notebook: Part 3
Results - Conclusion - Recommendations

Results:

Here, you will show & write what happened during he experiment. Tables, graphs, charts, sketches, photographs, statistical analyses, & general descriptions of observations are included.
Do not include the actual math.
That part stays in the composition book.

The goal of the results section is to…
- Explain everything in the written discussion & show it through graphs, data tables, & photographs.
- Save any conclusions for later.
- **This section consists of 5 parts:**

Part A: Results
•An initial summary of what was tested and how.
A few paragraphs introducing the experimentation

Part B: Data Table
- You already created & saved a digital data table. Now, copy the info from the comp. book.
- Include all variables, trials & controls.
- Don't forget to include units!
- Round every number to the same decimal spot. In other words, everything should be rounded to the tenth or hundredth place.
- Calculate & include: **averages, percentages, & percent change.**
- LABEL EVERYTHING!!! Titles, tables, columns, rows!

Part C: Graphs
- Typically, you will be graphing measured variable vs. changed variable.
- Use Excel to produce your graphs - no "hand drawn graph paper" graphs will be accepted.
- Choose the right intervals for the graph. If you're measuring to the nearest hundredth, don't make a graph with intervals of 50.
- LABEL EVERYTHING!!! Titles, tables, columns, rows, axis's, everything!
- Using the appropriate graph (line vs. bar vs. pie) for your data is very important. If the graph doesn't show any trends, change the graph type or what's on each axis.

Part D: Photographs
- Assign a number to each one - figure 1, figure 2.
- Include a brief caption or title for each one
- These may also be placed within the written discussion.
- Sketches or diagrams can be included, but must be professional looking.

Part E: Discussion
- Write a detailed summary of the experiment, which is a **MINIMUM of 1 page 1.5 spaced.**
  - Describe the entire experiment in detail!
  - What happened when you tested each variable?

Which variable had positive results & which did not
- Describe each trial. How were they the same? How were they different?
- What problems (if any) did you encounter?
- Did any unplanned variables affect the results?
- What changes (if any) did you make to the procedures?
- Refer to your hypothesis & describe how the ending results differed from the hypothesis.
- DO NOT form any conclusions. That's later!

Conclusion :
- Draw conclusions based upon the data you reported in the Results section. Use the graphs!
- Start with a powerful opener & continue it with topic sentences until the end. Make sure each paragraph focuses on one topic.
- Use scientific writing. No I's and you's
- **Length:** *at least* **1 1/2 pages 1.5 spacing**
- Please include the following, preferably in order:
  1. Discuss the DATA & results! Look at any possible patterns, explanations of data, or your own theories as to why it turned out the way it did.
  2. Restate the original hypothesis & discuss how accurate or inaccurate your prediction was. Provide a possible explanation for any discrepancies or accuracies.
  3. Here comes the science… How can you explain your results, using science? This should be the bulk of the paper & is the most important part. You may need to do some research to find answers. You must be able to explain WHY you obtained these results.
  4. Refer back to the purpose & statement of the problem. Did you answer the big question?
  5. Finally, end with the big picture. Why does this experiment matter to you or the world?

Recommendations:
- This section analyzes the strengths & weaknesses of the project.
- Look at what went wrong & explain why.
- Make suggestions or explanations for inaccurate or unexpected results.
- Suggest future improvement on the design of your experiment, what should you have done, or how you can make this experiment better.
- If someone were interested in this topic, what would you recommend they tested?
- Worth 20 points, credit/no credit
- **Length: ½ - 1 page 1.5 spacing**