**Writing a Conclusion Essay in a Science Lab Report**

A **conclusion essay** contains a description of the purpose of the experiment, a discussion of your major findings, an explanation of your findings, and recommendations for further study.

Address the following points in paragraph form (don’t just number off and answer each question)

1. Restate the overall purpose of the experiment (include IV and DV in this sentence.)

**One format:** The purpose of the experiment was to investigate the effect of the (IV) on the (DV)

**Example:** The purpose of the experiment was to investigate the effect of stress on the growth of bean plants by comparing the growth of bean plants subjected to stress for 15 days with a control (non-stressed plants.)

2. What were the major findings? (Summarize your data and graph results)

**Example:** No significant difference existed between the height of stressed plants and non-stressed plants. As the graph shows above, the average height of all the stressed plants was 10.2 cm and the average height of all the non-stressed plants was 10.4 cm.

3. Was the hypothesis supported by the data?

**One format:** The hypothesis that (insert your hypothesis) was (supported, partially supported, or not supported.) Please do not ever use the word “prove” – we do NOT prove hypotheses true in science.

**Example:** The hypothesis that stressed plants would have a dramatically lower mean height was not supported.

4. How could this experiment be improved?

**Example:** This experiment relied on an artificial source of stress – just digging out the plants at one time and replanting them. Perhaps this experiment could be improved by simulating real-life stressors, including drought and lack of nutrients in soil.

**NOT acceptable:** This experiment would have been better if we had done it correctly – we did sloppy work and made careless measurements.

5. What could be studied next after this experiment? What new experiment could continue study of this topic?

**Example:** Additional investigations using various sources of stress at more frequent intervals would be a good additional experiment. Also, other crops could be subjected to the same experiment, such as corn and squash. Perhaps scientists could find a chemical that the plants release during stress.

**Conclusion Do’s and Don’ts**

* **Do** draw an illustration or a graph, if appropriate.
* **Don’t** list the data again, but summarize, discuss, and analyze the data.
* **Do** explain why your hypothesis was correct or incorrect from your observations or data.
* **Don’t** give the procedure again, but **do** point out possible sources of error.
* **Don’t** forget to break up your ideas with more than one paragraph. Your conclusion is an essay.

**Helpful Format for Writing a Conclusion**

(Length of blank lines does NOT indicate the length of your entries – additional sentences are encouraged)

This lab (experiment) investigated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

In order to study the problem we \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

My results showed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, thus proving my hypothesis was (correct/incorrect).

I believe the results are (accurate/inaccurate) because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

In order to further investigate this problem, next time I would \_\_\_\_\_\_\_\_\_\_.

**Sample Conclusion Paragraph**

