**Science Fair Lab Report Guidelines:**

Student Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_

**Title of Science Fair Project** (*centered*)

**Research Question:** What is the question you wish to answer by doing this experiment? What is it you want to find out?

**Hypothesis**: Make a prediction for the question you are investigating. Use an **“If….then…”** statement. (Your hypothesis should show the relationship between your IV and DV.) You should explain how you came up with your hypothesis and it should also be based on your research.

**Variables:** Identify your independent variable, dependent variable and all known controlled variables. If your experiment has a control, explain what it is.

**Materials List**: List all tools and materials used in the experiment. Be specific and mention amounts needed. These should be listed in a bulleted list.

**Procedure**: List exactly what you will do in the experiment so that anyone else can repeat your steps with no other information. Step by step instructions are necessary. List these as numbered, chronological steps.

**Data and Observations**: Include qualitative and quantitative observations. You usually include one or more data tables. Sketches, drawings and pictures may be presented here. Units should be included for quantitative observations if appropriate.

**Data Analysis:** Explain/interpret your data and observations (in other words, what were the results?) Include one or more graphs representing your data (usually a bar or line graph). Comment on any comparisons/differences, patterns and trends between the trials. Be specific and detailed! This should be 1-2 paragraphs in length.

**Conclusion**: Write your conclusion in three separate parts. Each part should be **at least** one paragraph in length. **This is the most important part of your project!**

1. Compare your results to your hypothesis. Did your data support your hypothesis or not? Explain. What did you learn from doing this experiment? Be specific. The “science” behind your experiment can be discussed here. How can what you learned actually benefit us or be used in real life?
2. Is your data consistent throughout the trials or is there a lot of variation? Explain the reason for the amount of precision in your data. Identify at least three sources of experimental error that most likely affected the outcome of your experiment. **Be specific.** Don’t just say “human error.”
3. Suggest ways you could improve this experiment. What would you do differently next time? (Think how you could improve your procedure somehow, maybe change one of your variables or make it more detailed.) If you were to do an extension of this experiment next year in high school, what aspects would you like to explore?

**Science Fair Lab Report Guidelines Continued**

1. The final lab report must be typed.
2. Use a traditional, easily readable font such as Times New Roman or Arial. The size should be 11 or 12 pt.
3. The text should be 1.5 line spaced.
4. Data tables and graphs should be created on a computer. It’s much easier and looks MUCH better.
5. It is perfectly okay to include diagrams or pictures in your Data/Observations section.
6. Each section header should be bold, such as “**Procedure**” or “**Conclusion**”.
7. With the exception of the title, all sections should be “Left-Aligned.”

*Make sure you have typed the different parts of your lab report. You can add to it as you go.*

*Next week we will be adding the conclusion.*

***You will enlarge the font and include what’s in your lab report on your display board so you can present your experiment and findings to the Judges.***