Science Fair

Friday, May 4

Science projects submitted for high school credit must meet the following criteria:

* Reflect an appropriate amount of time and effort
* Be the student’s own work, completed between September and May
* Be science-related (any field)
* Include a Lab Report, ***due Wednesday May 2***
* Include a Visual for public display
* Be complete, submitted, and set up by Friday evening May 4

Science projects must also adhere to the following:

* Have tasteful subject matter—nothing gross, violent, or disturbing
* Be non-hazardous—safe enough to left in the open, and have around small children
* Should not require technology (i.e. phones, laptops) to explain; projects will be left unsupervised in a common area for some period of time
* Should be visual: not an essay or other non-visual display

**The Lab Report:**

1. Title

Concise and Descriptive (“Types of Invertebrates Found in Pond Water)

1. Hypothesis

What question(s) are you answering? Did you start with an observation that led to questions?

What variables are you testing? Identify the independent (manipulated) and dependent (respondent) variables.

Write a possible solution for the problem, or possible outcome of your observations.

Make sure the statement is testable or researchable, with results that can confirm a point.

Make sure it is written in complete sentences.

(“How many different types of insects are found in pond water? Does location, temperature, pH, or season affect what is found? The temperature, pH, date, and proximity to populated areas are the independent variables, and the dependent variables will be the number and type of organisms found.”)

1. Materials

Make a list of ALL items used in your lab. Cite any online or paper resources here, like a bibliography.

(Microscope, slide, cover glass, pipet, 6 beakers, net, field guide…)

(“Inches of Snow In Topeka, 1999-2005, monthly averages,” [www.kansasweather.gov](http://www.kansasweather.gov))

1. Data Collection Method

Write in complete sentences a paragraph or more that summarizes the steps of your lab. Without going into exhaustive detail, include step-by-step directions that would help someone else repeat the experiment.

1. Data

Include any data tables, graphs, charts, observations here. Make sure they are labeled, colored, as necessary. They may be drawn or typed.

1. Analysis

Analyze your data. Comment on your thoughts and reasoning from your data collection—things that worked, didn’t work; things that appeared causal, or symptomatic. What could you tell, or not tell? Mention any intervening variables that prevented you from being certain, or caused results to be ruined/not show. This may be the longest section of your report if you did something complex like a stream study or engineering project.

Also include averages, highest, lowest, ranges. Summarize and bold/underline any key information, especially if you reference it more than once.

Discuss any possible errors that could have occurred during the collection, and how that could be improved.

1. Conclusion

Accept or reject your hypothesis, or say why it needs refining/redoing. Briefly explain why you did so, and what could be a further point of research if someone else chose to explore further.

Briefly state one thing you learned and describe how it applies to a real-life situation.