



2011

Student Guidelines for Completing a Science Fair Project for Elementary & Middle School Students

FEATURES OF A SCIENCE FAIR PROJECT

A Science Fair Project has four major features:

First, it contains an *original*, high quality scientific experiment. Although your parents can help you, this project must be *your* work.

Second, the project includes a Scientific Log Book that tells everything about your project.

Third, the results of your experiment are clearly and neatly displayed.

Fourth, the display grabs the attention of the judges.

All four features are equally important. The following will help you plan and do your project.

SCIENCE PROJECT LOG BOOK

Before you begin your project, you should start your Science Project Log Book, which will be a very important part of your project. Hand-write everything into this book that pertains to the project, no matter how insignificant it might seem. This log book must be included with your Science Project Display Board and if your project is sent forward to the regional fair. The quality of your log book will be part of the judging criteria.

MAKING A TIME TABLE

It might sound silly now, but a good project has to be started, and started soon! It also needs to be finished.

- Make a calendar to mark important information. Mark the dates of your school's science fair and those of the Southern Nevada Regional Science & Engineering Fair. Cross-off days planned for family, club activities and trips.
- Get your topic picked yet? Now work backwards from the day your project is due. Leave at least two weeks to write the final draft of your paper and to put together your display. Mark off a week for your first draft and a few days for your teacher to review it.
- Now you need a large block of time to collect your data. Plants and seeds need weeks to sprout and to grow. Are you planning to chart some kind of activity for a month or more? Remember that even simple experiments don't work as you might expect them to the first time, or the second time, or even the third time.
- Check off how many days or weeks or months you might need to collect your data, at least twice. Before this, you need about two weeks for library work, to write companies for information or to construct or borrow equipment.

Doesn't look too good? You needed to get started two months ago? It might be good to pick a topic for this year that first requires less time to develop. Don't forget that first choice because many of our winners start next year's project during the long, boring summer vacation.

USING THE SCIENTIFIC METHOD

Good scientists, both young and old, study things they see in the world by looking for cause and effect. The scientific method tells how this is done (Guidelines for the Scientific Method are included on this website).

Following the method will help you produce your own high quality scientific experiment.

PRESENTING YOUR PROJECT

All of your hard work will not be noticed if your project does not grab the attention of the judges and the public. From the hundreds of other projects present, yours must yell, "Hey Judge, LOOK AT ME!" Your project will be examined; your efforts appreciated and may be rewarded if your project has:

A. Organization

Arrange the presentation of your project so that the judges can easily examine and understand your experiment and your results. With one quick glance a viewer should be able to easily find the four necessary parts of your display: the title (*Question*), how you did your experiment (*Methods*), your data (*Results*) and your *Conclusions*. Remember, even though you are very familiar with your topic and your work, when the judges first see it, they will have no idea what your project is all about!

B. The Title Is The Beginning

Your title is what the judges might see first. It should be much more than just a beginning; a good title grabs the attention of the casual observer. It is short, yet it correctly and completely describes your entire project. A good title begs the people looking at your project to dig deeper. Make sure that your title tells your audience what your project is really about. It should agree with and might even be the *question* you developed while predicting what would happen if you did your experiment.

C. Eye Catching And Attention Holding

Home built equipment; neat and colorful headings; graphs and tables; all draw attention to your project. The careful use of contrasting colors will help. For filling in charts and bar graphs, construction paper cutouts look much better than colored white paper. For line graphs, use colored marking pens instead of pencils. One area often needing extra attention is the labeling of graphs, charts, diagrams and tables. Each item must have its own very descriptive title. All columns, axes and data must be clearly labeled and identified. A person should be able to understand each graph without having to read your paper. Also, bar graphs, line graphs and pie charts all have different purposes. Check with your math teacher to make sure you have the right graph to display your type of data.

D. Correctly Presented, Well Constructed

When constructing your display, observe the size limitations, safety considerations and other rules for the presentation of your project. Make sure that if humans are used in your project, that the proper release forms have been completed. The Science Fair is also very concerned about the humane treatment of all animals. If you are using animals in your experiment, request any special forms that might be necessary NOW! Animals CANNOT be included in your display. Your display won't be seen if it falls apart during the Fair. Do not construct your display using ONLY poster board and tape. It will not stand up straight more than a few hours. It is okay for adults to help you construct your display. In fact, ask for their help, but remind them to check over the display rules.

E. Writing About Your Project

You will be investing a lot of time and work in your project. A little bit more work will result in a first-class scientific paper. Remember you need enough time to write at least two drafts of your paper. Note that some of this first draft is written before and while you do your experiment.

Thanks to George Ochs: Completing a Science Fair Project, Western Regional Science & Engineering Fair, 2007.