

# How to Construct a Science Fair Exhibit



INSPIRING SCIENTIFIC CURIOSITY AND LEARNING FOR A BETTER COMMUNITY

# Introduction

You are about to become one of more than three million students who will participate in a science fair somewhere in the United States this year. This means that more than three million science fair exhibits will be constructed and displayed for public viewing across the country. Each exhibit will represent several weeks or months of very hard work on the part of a student scientist like you. Although the exhibit itself is not nearly as important as the knowledge and research skills you have gained in your study, it is nonetheless important to the public viewer. It is the primary means of conveying to others exactly what you did in your study. For this reason, you should put forth your best effort when constructing or assembling your exhibit and take the time to do it right.

Your science fair exhibit should be assembled or constructed with three goals in mind:

1. It should convey effectively to the viewer what was done in the study.
2. It should be durable enough to stand on its own over several days and withstand being moved, jostled and bumped without being damaged.
3. It should have “visual impact,” (i.e., it should catch the viewer’s attention and be pleasing to the eye).

Although there is not a set procedure to follow in constructing or assembling a science fair exhibit, there are some “do’s and don’ts” that you should keep in mind that will help you achieve these goals. These are found on the pages ahead. Good luck!

## Planning Your Exhibit

### Style and Composition

Science fair exhibits (display) may be organized and constructed in many ways. The only limits that will be placed upon your design will be the overall dimensions of your exhibits.

### Dimensions

The most popular type of display has three sides and stands upright without other means of support. (See Figure 1)

If you enter The Greater Kansas City Science and Engineering Fair, your exhibit is not to exceed these dimensions:

Junior and Senior Divisions (grades 7-12)  
76 cm (30 in) deep  
122 cm (48 in) wide

Intermediate Division (grades 4-6)  
76 cm (30 in) deep  
81 cm (32 in) wide

**\*Be sure to keep within these dimensions; oversized projects will be disqualified. \***

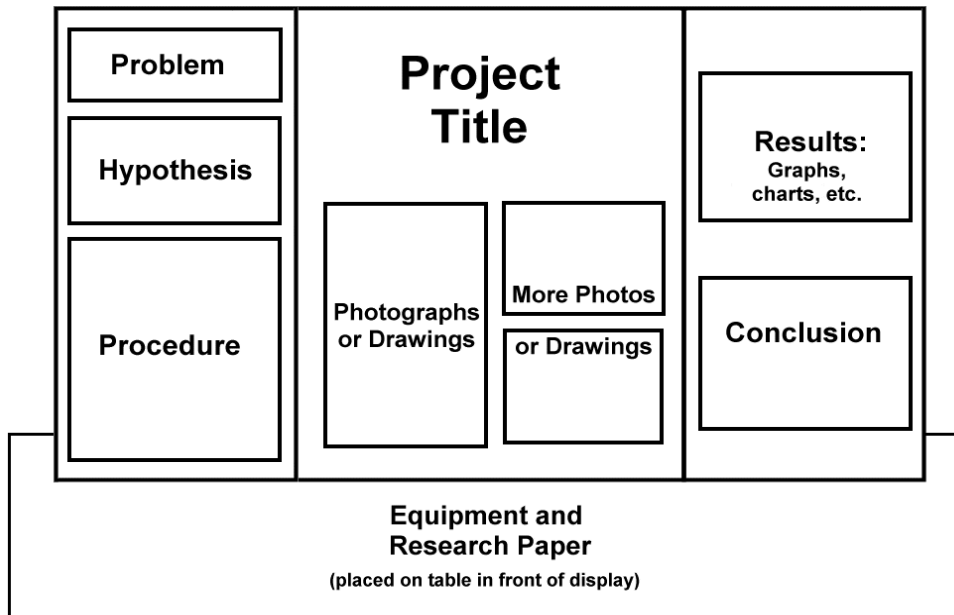


Figure 1. Sample exhibit style

The left side panel of the display could be used to present your **Problem**, **Hypothesis**, and **Procedure** while the right side could show your **Results** in the form of graphs and charts and your **Conclusion**. The center panel is reserved for the **Title** of the project and diagrams, photos or drawings.

Your **Paper** should be placed on the table in front of the display panel. Even if most of the information within the paper is displayed on the backboard display, your report should still include all the procedures and data from your experiment. In addition, you can place equipment that you used in your experiment. **Do not include expensive instruments, live animals, microorganisms or hazardous materials.**

Thus, the backboard, research paper and equipment comprise your exhibit.

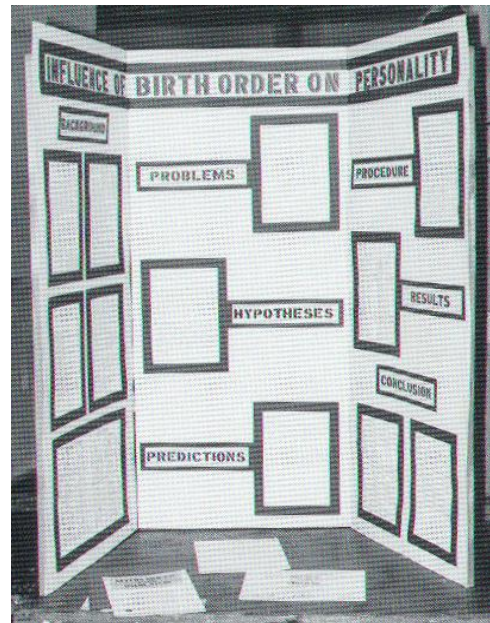
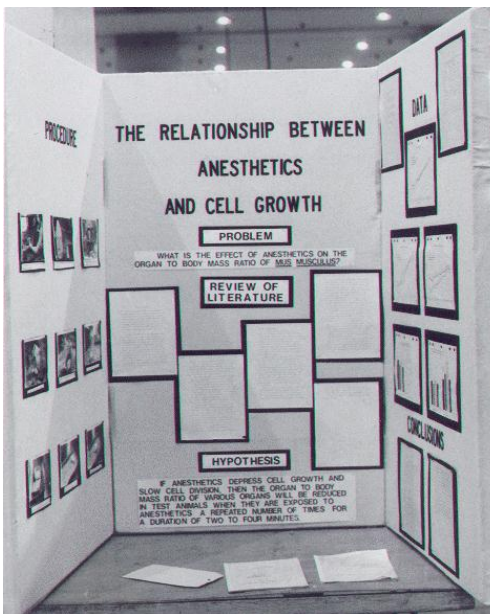


Figure 2. Two examples of project exhibit's using this general design.

## **Materials**

Whether you choose to use a commercially available show board or construct your own, remember that your display should be sturdy enough to stand by itself on the table and remain standing during the fair. Regardless of the materials you use, make sure that your display can withstand a sudden gust of wind.

## **Colors**

After you have decided what type of material will be used for the backboard, you must decide what colors you will use. If you are buying a commercial backboard, various colors are available. If you are constructing your backboard, and the board needs painting, enamel paint works best. Remember that you can also use other materials to create a background for the lettering. Choose contrasting colors for lettering. If you are in doubt about your color combination, get another opinion.

## **Background and Lettering**

Instead of writing directly on the backboard, it is a good idea to use separate pieces of construction paper or lettering to put the titles of the project and information categories on the backboard. It is much easier to correct a mistake or change a part of the display if each part is glued or taped to the backboard rather than written directly on the display.

The use of computer-generated banners and lettering, or stencils, will make the display more attractive. Title boards, stick-on letters and subtitles created just for science projects can be used on the display and are available from area hobby, craft, office supply and teacher stores.

## **Drawings**

Drawings and sketches should always be drawn in pencil and then retraced. You should use a separate piece of paper for your artwork, as it is hard to erase directly on a backboard without leaving marks or removing the color.

## **Photos**

Good photographs can be enlarged at a photo dealer to 5" x 7" or 8" x 10" so that you can show how you set up your experiment. Every project does not need a photograph, but if you have a camera, you might consider recording your progress. Photos on your backboard should be labeled. If photos are included in your paper, they should be placed at the end.

## **Graphs and Charts**

There are many good computer software programs that will help you create graphs and charts to display your data. Remember to clearly label your data.

## **Putting It All Together**

When you have decided what you are going to put on your exhibit, lay the whole thing on the floor and look at it. Have others look at it and ask for their opinions. Then, you can glue or tape everything to the backboard. Sometimes Velcro attachments are used.

***Although others are not to create your exhibit for you, it is permissible for your teacher, family or friends to HELP you put your display together.***