

## Project Display Hints

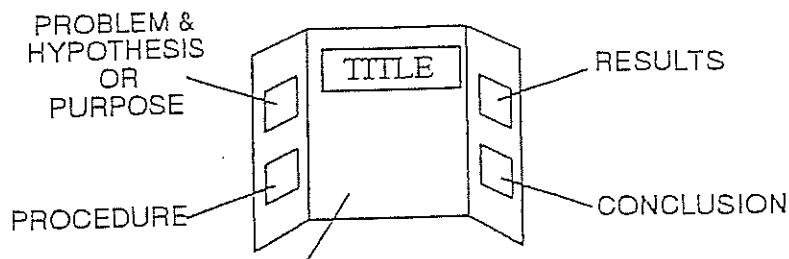
Display formats may vary. Check with your teacher for specific requirements.

The Science Fair display must be free-standing. Make it tell a story—explain itself clearly.

The most popular format for display is a 3-part sectional board. Any of a variety of materials can be used: plywood, masonite, posterboard or cardboard with tape hinges, or a ready-made display board.

The display should be eye-catching, organized and neat. Lay out the entire project on the board before attaching any section or lettering to be certain of a final neat appearance.

General layout suggestion:



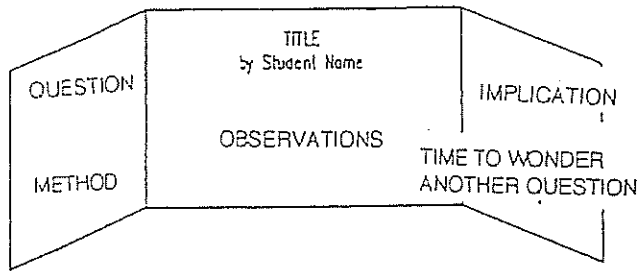
Add items of interest—pictures, diagrams, charts, report pocket, etc.

There may be some variations in placement of major sections. Check with the teacher for his or her preference. The student's name, grade, teacher, and school are often written on the back of the display.

Models, equipment used in the project, or parts or samples of the experiment may have to be documented with photographs. Some local Science Fair rules require that all items be attached to display boards, including notebooks.

- Use rubber cement or glue sticks for best results when attaching most materials (lettering, diagrams, etc.) to the display board. This avoids the "crinkle" effect resulting with some glues.
- Use large lettering for titles—handwritten, stenciled on the board, cut from construction paper, or computer-generated. Ready-made and self-adhesive lettering is available.
- The title should be brief and displayed in large, bold letters. A header may be attached to the display board for highlighting the title.
- A background color may be used on the project board itself. Either cover it with colored paper, fabric, or paint—or use a colored display board.
- When selecting colors for lettering, backgrounds, or accents, yellows and greens are popular for nature themes; blue, red, and black are most often used for others.
- Attach all movable parts firmly to the display board.

## INVESTIGATION

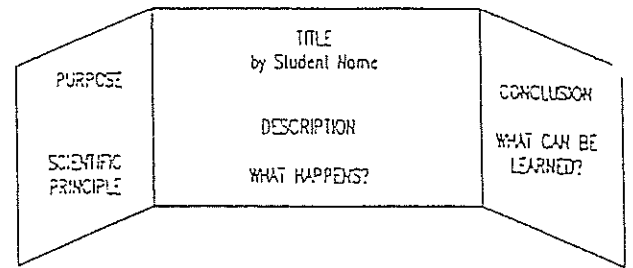


In an investigation you pose a question and then collect data through direct observation.

In this type of project there is no manipulation of independent variables. This project can be used in studies of the natural environment, (i.e. What living things may be found in a cubic foot of soil?) as well as consumer issues, (i.e. Which paper towel is the most absorbent?)

An investigation project should: 1) State the question to be explored, 2) Describe the method for collecting the data, 3) Present recorded quantitative observations using charts or graphs if appropriate. 4) Discuss the results, and analyze their implications, and 5) Pose a question for expanding your study. How would additional information be useful? Take time to wonder beyond your results.

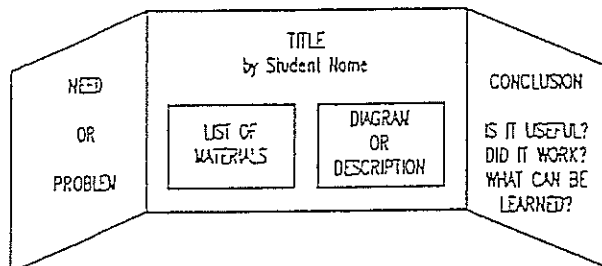
## DEMONSTRATION



A demonstration project is a presentation that shows how something works or illustrates a known process. It helps us to understand a scientific principle or a natural process. It does not pose an original question since the answer is known from the onset. Its value is in allowing you to clearly understand and explain a scientific concept. The demonstration should be a workable model that can be operated by the student.

A demonstration project should: 1) State the purpose as a question, 2) Describe the scientific principle involved, 3) Demonstrate and state the procedure and describe what happens, 4) Compare/Contrast: List several ways the demonstration models reality and several ways it is different than an actual application, and, 5) Present a conclusion, such as what can be learned from your demonstration.

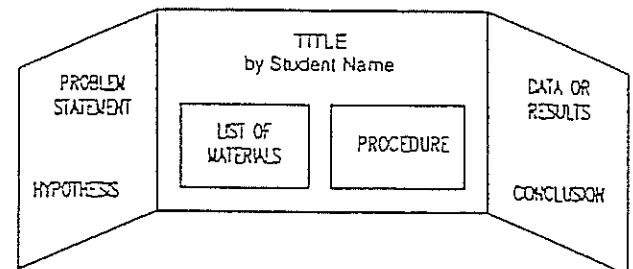
## INVENTION



An invention is a creation that you have thought of by yourself which does something -usually something useful. It should be unique! It may be an improvement on an existing item or something completely original. Your project may simply present a well thought-out plan of your new idea, or it may include an actual working prototype!

An invention project should: 1) explain the need or problem that the invention address, 2) describe the solution (the invention), 3) list the materials needed, 4) show plans and describe how it is made, 5) demonstrate the invention (or illustrate a working prototype,) and explain how it works, and, 6) present a conclusion evaluating its usefulness and discussing what you learned

## EXPERIMENT



In a controlled experiment you explore a question which looks at testing "cause and effect". You pose an original question in which you change a single condition as you repeat the experiment. In an experimental project the final answer is completely unknown until the experiment is performed!

The experimental project should include:

- 1) The Question: What is the purpose of the experiment, What are we trying to find out?
- 2) My Guess: We attempt a hypothesis to help us design our experiment with an answer at the end.
- 3) My Experiment: We discuss the procedure which explains the steps of our experiment.
- 4) Supplies: We list our equipment for others to understand how we did the experiment.
- 5) Observations: We present data so others see our results.
- 6) The Answer: We tell what our data proves. Does it lead us to a conclusion?