

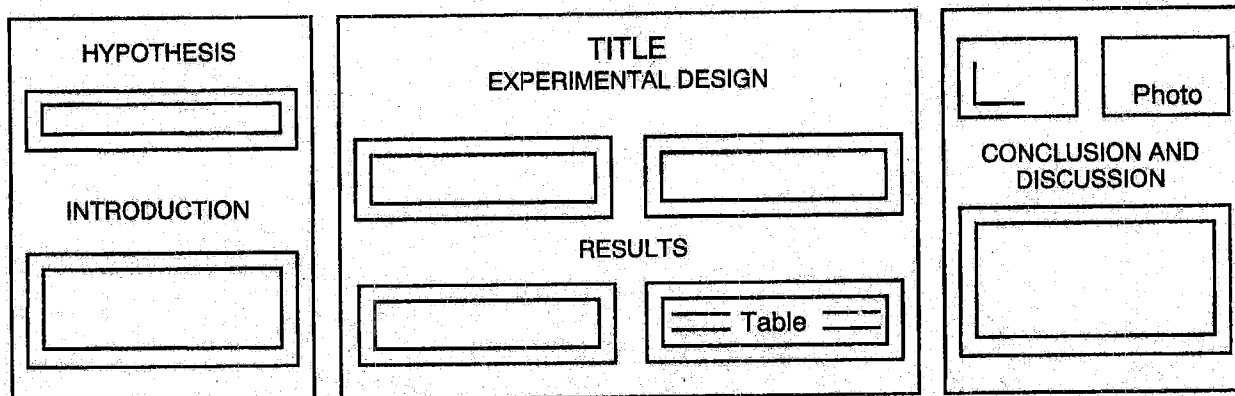
SCIENCE FAIR - EXPERIMENTAL PROJECTS

Experimental Projects must follow the guidelines of the scientific method. Be careful of questions that start with "How does . . . ?" This is often a demonstration, as in "How does a fish swim?" or "How does a volcano erupt?" The problem should be one you don't already know the answer to.

THE SCIENTIFIC METHOD

- Problem:** This is where you state a problem, usually in the form of a question.
- Hypothesis:** You write down your answer to your problem. This is not a guess but an answer based upon knowledge obtained upon research or observation.
- Controlled Experiment:** This is your plan to test your hypothesis. You explain both your methods and materials.
A very important part of your experiment is to **test only one variable**. A variable is anything in an experiment that changes. Your goal is to keep everything the same, except for the one thing you are testing.
- Results:** This is where you write down the observations and measurements of your experiment. Tables of information to organize your data and graphs to present it are very important.
- Conclusion:** Try to answer your hypothesis: Were you right or wrong? Remember, some of the best experiments prove their hypothesis wrong! Always use your experimental data from your results to support your conclusion.

SAMPLE LAYOUT FOR AN EXPERIMENTAL PROJECT



MAXIMUM WIDTH: 4 FEET — MAXIMUM DEPTH: 2-1/2 FEET — MAXIMUM HEIGHT: 6-1/2 FEET