

Science Fair Projects due March 6

(1st, 2nd, 3rd Medals: PK-1, 2-3, 4-5)

Please include:

Research Question: The research question is the single most important part of the scientific method. Every part of your project is done to answer this question. The research question is sometimes formed as a statement and is called the "Problem" or "Problem Statement."

Hypothesis: The hypothesis is an "educated guess," formed as a statement that you propose to be the answer to the research question. An educated guess is based on some prior knowledge.

Experimental Design: Plan an experiment in which you can test your hypothesis.

Variables: The experiment will contain an element or elements that do not change.

Control: The control is a particular sample that is treated the same as all the rest of the samples except that it is not exposed to manipulated variables.

Observation: When you interact with your experiment, you are using your senses to observe. Does it have a smell; make a noise have color, etc.?

Collect Data: As you observe your experiment, you will need to record the progress of your experiment. Data can be whatever you observe about your experiment that may or may not change during the time of the experimentation.

Journal: All scientists keep a record of their observations in some form of a journal.

Data: The data are the values written down as the experiment progresses.

Charts & Graphs: When at all possible, illustrations of data are advisable.

Materials: List all supplies and equipment.

Procedure: The procedure is a somewhat detailed, step - by - step description of how you conducted your experiment. Example: "After 1 minute, I stirred in the baking soda and timed the reaction to be 45 seconds."

Results: The results are usually in the form of a statement that explains or interprets the data.

Conclusion: The conclusion is a summary of the research and the results of the experiment. This is where you answer your research question. You make a statement of whether your data supported your hypothesis or not. You may have data that supported part of your hypothesis and not another part. You may also have data that did not support your hypothesis at all. In this case, you may explain why the results were different.

Resources: One of the most important things for a student to do is recognize the people and resources used in developing and conducting the project. Name the people who offered knowledge or helped, and list the web sites, retail stores, magazines, books, computer programs, etc. that were used as sources of information or supplies.