

Science Fair Made Simple

Daily Log: The daily log is like a diary or a journal. All you do is record the dates that you worked on your project, and tell what it was that you did on each day. The daily log can start as soon as you start thinking about your project. Even if your project only takes one day, your log will probably have many entries because chances are you thought about the project, gathered your materials, and wrote about your results on several different days.

Question: A well written question should have both the independent variable (the ONE thing you are changing) and the dependent variable (the thing you are measuring). Using the format “How does _____ affect _____?” is your best bet for a good question. For example: How does the temperature of water used to water plants affect their height?

Hypothesis: The hypothesis tells what you think the answer to your question will be. It has two parts: what you think will happen and why you think that. For example: My hypothesis is the plants being watered with warm water will grow the tallest. I think this because I know rainforest plants are huge, and it is warm in the rainforest.

Materials: A well written materials list tells exactly what you need to do the experiment. The key is to be very specific.

Procedure: The procedure gives step by step instructions for carrying out the experiment. Think of the materials and procedure like a recipe. The materials list is like the list of ingredients in a recipe, while the procedure is like the directions for making the recipe.

Data: Great data is made up of all the pictures, charts, graphs, and tables that you used to record your measurements as you did your experiment.

Results: The results tell (in paragraph form) what your data shows. Really all you are doing is turning your data into words. Pretend that the person looking at your project can not see your data. The results should tell that person all the things your data would have shown.

Conclusion: A conclusion states whether or not your hypothesis was correct. In your conclusion, you should also tell what data helped you decide if you were correct. It's okay if your hypothesis was incorrect!

Summary: The summary is a one page “retelling” of your project. In your summary, tell what made you choose this question. Tell what you wanted to find out. Discuss how you did your project and what you found out. Explain the things that went well, as well as the things that did not go well. Finally, tell how you could improve the project if you were to redo it.

For fifth and sixth grade students, as well as students participating in a team project (regardless of the grade level):

Research: Research is your own written summary of the information you found as you were studying your topic. You can use textbooks, encyclopedias, books on the subject, and the internet as well as interviews with experts to gather information that will help you form a hypothesis. Once you have all that information, you write about all the things you learned. Research ***is not*** pages and pages of information printed from the internet itself.

Bibliography: The bibliography is an alphabetized list of all the sources you used to get information to write your research. There is a specific format to use for writing a bibliography, so make sure you get this from your teacher.

*Research and Bibliography are done prior to forming the hypothesis. The purpose of your research is to help you make your hypothesis.