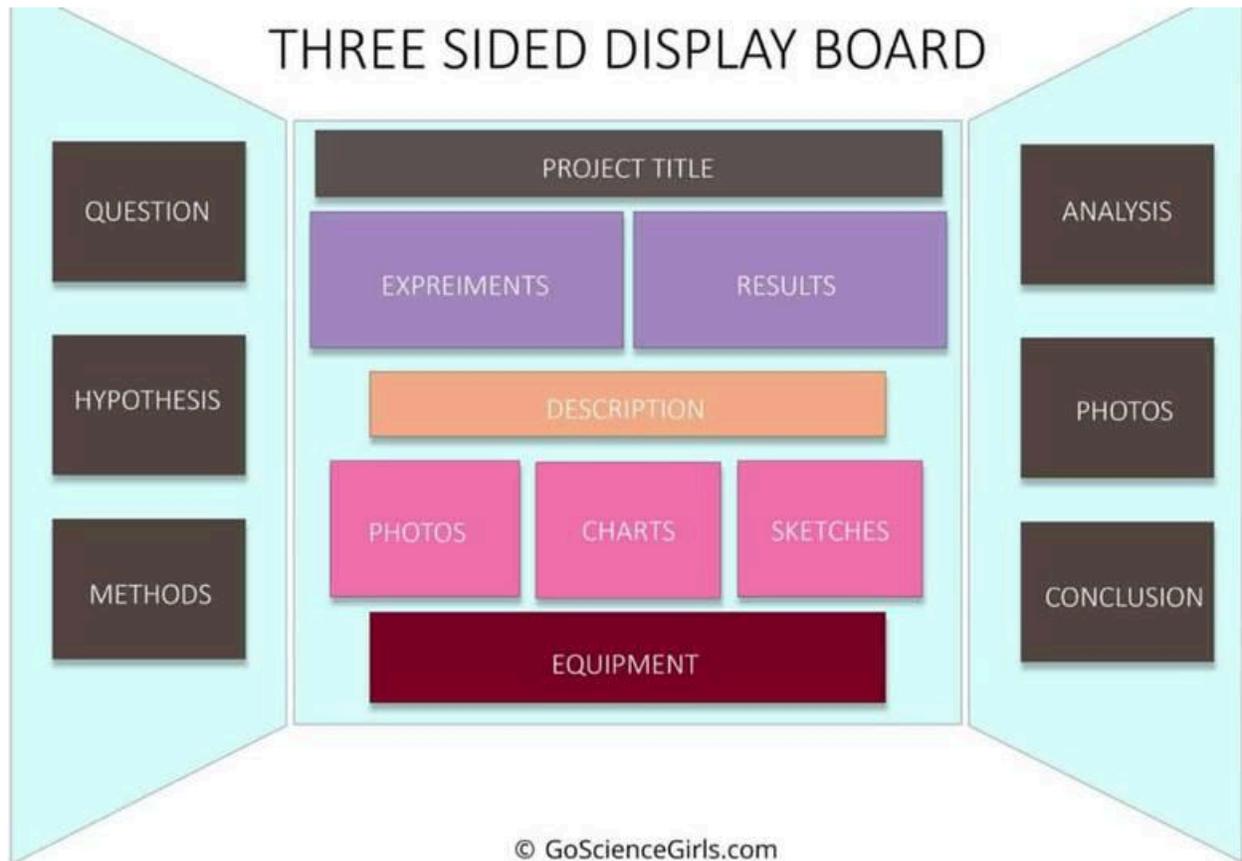


Science Fair Experiment: Display Board

This is just one example of a display board- you can change how you display your experiment



Project Title: Title and Name of experiment

Background information: Background information of project. Could include a summary of relevant scientific principles, key concepts, and a review of past studies to explain hypothesis

Question: What is the question that you want to answer? What question is your hypothesis answering?

Hypothesis: Is a testable, specific, and clear statement that predicts an outcome based on your research and includes an independent variable, a dependent variable, and a measurable result. It should be framed as "If... then...because...". The "if" and "then" explain the cause-and-effect relationship between the variables.

Independent variable: what you change in an experiment

Dependent variable: is measured in an experiment and whose outcome depends on the independent variable

Examples of measurable results: distance, height, temperature, color change, speed

Equipment: Materials used in the project and quantity used

Methods: How you went about proving your hypothesis. The method the student used to attempt to address the problem or question

Experiments: The steps in your procedure

Results: The final result. What were the results of your experiment?

Photos: Can include photos of your experiment

Charts: You can make a chart tracking the data or information from your results

Sketch: Sketch out your results

Analysis: What do your results mean? Organize your data and compare variables. Look for trends.

Conclusion: Answer your question from your hypothesis. State whether the data from your experiment supports or contradicts your initial hypothesis. Acknowledge limitations and suggest future research.

Steps to the Scientific Method

1. Ask a Question. Ask a question about something you observe: How, What, When, Who, Which, Why, or Where?

2. Do Background Research Use the library and internet research to help you find the best way to do things and ensure you don't repeat mistakes from the past.

3. Construct a Hypothesis This is an attempt to answer your question with an explanation that can be tested. A good hypothesis allows you to make a prediction:

"If _____, then _____ will happen."

4. Test Your Hypothesis by Doing an Experiment You can make sure your experiment is a fair test by changing only one factor at a time while keeping all other conditions the same.

You can repeat your experiments several times to make sure that the first results weren't just an accident.

5. Analyze Your Data and Draw a Conclusion Collect your measurements and analyze them to see if they support your hypothesis or not.

If it's not supported, you can communicate your results and then go back and construct a new hypothesis and prediction based on what you learned during your experiment. Even if it was supported, you may want to test it in a new way.

6. Communicate Your Results You are doing this with your poster board.