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| Steps to take for your Science Fair Experiment & Reporting your Results |

Here are the steps for a completing your experiment and reporting your findings. Fill out the following information for your experiment.  If you are doing this experiment over time, keep your information in a science journal/notebook.  Go the page on the scientific method to get more information.  Follow the steps for a controlled experiment.

1.  **Question**:  What do you want to find out?

2.  **Research**:   Write a short paragraph summarizing the background information that you found. This can be an article from an encyclopedia or something you downloaded from the Internet.

3.  **Hypothesis**:  Make an educated guess based on the research.

4. **Experiment**:   When you conduct your experiment, you need to do it enough times to collect data.  Take into account that it might not work the first time or one of your testing materials might be defective.  For example, if you are doing an experiment on plant growth, don’t plant one seed in a pot, plant two or three.   
     a. **Materials used:** (Make a list.)   
     b. **Procedure:** (Write the steps you followed.)   
     c. Include what were the **constants** were (the things that did not change)   
     d. Include the **variable** (the thing(s) that did change).

 FOR EXAMPLE:  You want to test how light affects plant growth.  You would plant the same kind of seed (use two or three) and plant them in three different pots, with the same soil, the same amount of soil, the same amount of plant food, and the same amount of water at the same time each day.  These are your constants.  Place one pot in a dark closet, one in the middle of the room, and one in the window.  This is your variable.

 REMEMBER:  If you have more than one variable you have to repeat the experiment again, changing only one variable at a time.   If you want to test how different amount of light affects different types of plants, you are now testing two variables.  You would have to plant three different types of seeds (2-3 seeds per pot in case one is defective) and put them in the three different locations described above.  You are now testing two variables.  Everything else remains constant or the same.

5.  **Analysis**:  A chart or table of your data.

6.  **Conclusion**: A statement whether your hypothesis was right or wrong and why. If it was wrong, why do you think it was wrong? What would you do differently the next time?