

Research-the Next Step

After the research question has been formed the next step is to research the topic and independent variable. The purpose of research is to get information on your topic that is beneficial. This research can offer many benefits.

Benefits of Research:

1. Should tell if the project will work by providing valuable background information.
2. Gives insight into what to expect from changing the variable. Can help you avoid mistakes.
3. Will help when identifying dependent variables and constants or controlled variables.
4. Can guide how the procedure is set up. Can help identify what to and not to do in the project.
5. Solidify real world connections.

Research Guidelines

1. Make a list of questions that you have about your investigation. These questions will include:
 - A. What information can be found about the independent variable?.
 - B. What is the relationship between the independent and dependent variables?
 - C. What other things could affect the investigation?
 - D. Any other questions that apply that are topic sensitive such as how to care for something if it is living.
2. Make sure you write all information in your own words. You can use the resource, *A Student's Guide to Recognizing Plagiarism and Avoiding It*:
http://www.valdosta.edu/~cbarnbau/personal/teaching_MISC/plagiarism.htm
3. Check with your teacher to see how they would like your research done. Some prefer the use of index cards, others written in the log book.
4. Bibliography.
 - A. From the research plan on Scienteer.
BIBLIOGRAPHY: *List major references (e.g. science journal articles, books, internet sites) from your literature review. If you plan to use vertebrate animals, one of these references must be an animal care reference.*
 - B. Make sure you create a bibliography. There are 2 different ways to compile one. Make sure you use the one that is required by your district. You will need 5 sources for your project.
 - C. If you do not know how to do a bibliography you can go to the following website:
<http://www.citationmachine.net/>
 - D. Guidelines for online sources.
 1. Avoid online encyclopedias and dictionaries. Most teachers do not recognize these as resources.

2. Do not type your question in Google or other search engines for information. It will lead you to others that have done your project. This should be original work.
3. Look for words such as “sponsored by” because this means someone paid for the post and the information could be biased.
4. Look for URLs that end in “edu”. These are associated with schools and universities and are more trustworthy and accurate. Be sure and read about the source to make sure they are not a special interest group.
5. If it sounds unusual and does not have documentation to provide sound evidence then it is a bad source. Be careful as there are many “fake” science sites out there.
6. The site should have facts, data and precise language. Make sure the claims have the evidence to support them.
7. Any credible site will have their sources cited and links to other sites.