



Review of Literature

Surveys of Science Buddies participants agree on one thing every year: the report called the Review of Literature is the part of the project where students learn the most. So, take it from those who preceded you, the paper you are preparing to write is super valuable.

What Is a Review of Literature?

The short answer is that the Review of Literature is a report summarizing the answers to the research questions you generated in the previous assignment. It's a review of the relevant "literature" (books, magazines, Web sites) discussing the topic you want to investigate.

The long answer is that the Review of Literature discusses techniques and equipment that are appropriate for investigating your topic. And, the Review of Literature summarizes the theory behind your experiment. Science fair judges like to see that you understand why your experiment turns out the way it does. You do library and Internet research so that you can make a prediction of what will occur in your experiment, and then whether that prediction is right or wrong, you will have the knowledge to understand what caused the behavior you observed.

If this sounds to you a lot like the reasons we gave for doing background research, you're right! The Review of Literature is simply the "write up" of that research.

Many science experiments can be explained using mathematics. As you write your Review of Literature, you'll want to make sure that you include as much relevant math as you understand. If a simple equation describes aspects of your project area, include it.

If you are doing an engineering or programming project that involves designing or inventing a new device, procedure, computer program, or algorithm, then be sure to check [Engineering & Programming Project Tips](#). You should have some additional information in your Review of Literature.

Note Taking

As you read the information in your bibliography, you'll want to take notes. Some teachers recommend taking notes on note cards. Each card contains the source at the top, with key points listed or quoted underneath. Others prefer typing notes directly into a word processor. No matter how you take notes, be sure to keep track of the sources for all your key facts.

When and How to Footnote or Reference Sources

When you write your Review of Literature you might want to copy words, pictures, diagrams, or ideas from one of your sources. It is OK to copy such information as long as you footnote or reference it. If the information is a phrase, sentence, or paragraph, then you should also put it in quotation marks. A reference and quotation marks tell the reader who actually wrote the information.

For a science fair project, parenthetical referencing (also known as author-date citation) is an accepted way to footnote information you copy. Parenthetical referencing is easy. Simply put the author's last name, the year of publication, and page number (if any) in parentheses after the information you copy.

Make sure that the source for every item copied appears in your bibliography.

Examples of Parenthetical References

"If you copy a sentence from a book or magazine article by a single author, the reference will look like this. A comma separates the page number (or numbers) from the year" (Bloggs 2002, 37).

"If you copy a sentence from a book or magazine article by more than one author, the reference will look like this" (Bloggs and Smith 2002, 37).

"Sometimes the author will have two publications in your bibliography for just one year. In that case, the first publication would have an 'a' after the publication year, the second a 'b', and so on. The reference will look like this" (Nguyen 2000b, 72-73).

When the author is unknown, "the text reference for such an entry may substitute the title, or a shortened version of the title for the author" (The Chicago Manual 1993, 654).

"Some sources will not have page numbers" (Han 1995).

Credit Where Credit Is Due!

When you work hard to write something, you don't want your friends to loaf and just copy it. Every author feels the same way.

Plagiarism is when someone copies the words, pictures, diagrams, or ideas of someone else and presents them as his or her own. When you find information in a book, on the Internet, or from some other source, you **MUST** give the author of that information credit in a footnote. If you copy a sentence or paragraph exactly, you should also use quotation marks.

The surprising thing to many students is how easy it is for parents, teachers, and science fair judges to detect and prove plagiarism. So, don't go there, and don't make us try to hunt you down!

Your Assignment

Summarize the answers to your research questions in a paper that's a minimum of 700 words long (about 1-2 typed pages).

Grading Yourself

What Makes a Good Review of Literature?	For a Good Review of Literature, You Should Answer "Yes" to Every Question
Have you defined all important terms?	Yes / No
Have you clearly answered all your research questions?	Yes / No
Does your research enable you to make a prediction of what will occur in your experiment? Will you have the knowledge to understand what causes the behavior you observe?	Yes / No
Have you included all the relevant math that you understand?	Yes / No
Have you referenced all information copied from another source and put any phrases, sentences, or paragraphs you copied in quotation marks?	Yes / No
If you are doing an engineering or programming project, have you defined your target user and answered questions about user needs, products that meet similar needs, design criteria, and important design tradeoffs?	Yes / No

10/01/2003

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