

How to Write a Research Paper

If you are a junior or senior in high school, you've probably had to write some research papers. If you are planning to continue on to college, you will definitely have to write some research papers! Writing research papers is difficult, but the more you write, the better you will get. Here are some tips to help you out.

- **Understand/choose your question.** Usually in high school and sometimes in college, teachers or professors will give you a question to write about. However, frequently in college, professors will just give you a very general topic, and you have to pick your own research question about that topic. If you are given a question, make sure you understand all of the parts of it. If you have to create your own question, pick something broad enough to give you enough to write about, but not so broad that you will have too much information.
 - Example: Your professor tells you that you need to write a paper about Arctic animals. You come up with a couple of possible questions.
 - Too broad: "How does the environment in the Arctic affect the animals that live there?" The Arctic has a lot of animals. You are probably not going to be able to write about all of them.
 - Too narrow: "What types of food do polar bears eat?" A paper that just lists the kinds of foods that polar bears eat is probably not going to be very long (or interesting).
 - Just right: How do the types of foods that polar bears eat help them live in the Arctic environment? This is a good question. You can research the types of food that polar bears eat, the type of environment they live in, and how the food they eat relates to their ability to live in that environment.
- **Outline first!** It is so, so, so, SO important to get an idea of the argument and organization of your paper as you start off. You can definitely change this as you do more research and learn more about your topic, but you do need some direction about what research to start with. Try breaking up your research question into some main topics and listing each of those topics on a Word document.
 - Back to the polar bear example: You might want to break up your paper into three main parts: what environment polar bears live in, what polar bears eat, and (the biggest part) how what they eat helps them to live in their environment.
- **Research. A lot.** Do more research than you think you will need to do. If you do a lot of research, you will find yourself becoming an expert on your topic, and you will be able to write a stronger, more original paper. (You will also be less likely to plagiarize because you will be able to put together all of the research you have done and come up with your own ways of saying things.) As you find good information that fits into any of your main topics, put paraphrases, quotes, statistics, etc. under the appropriate topics on your Word document. You may discover that you need to create new topics too.
 - Polar bear example: If you find a source that talks about the average temperatures in the Arctic, put that under the "environment" topic. If you find a source that talks about

how polar bears need to eat a lot of fat to survive in those temperatures, put that under the “how what polar bears eat helps them live in their environment” topic.

- **Use a variety of sources.** You can use online sources as long as they are not “.com” websites or Wikipedia. Scholarly journals contain articles written by experts in a field that have been reviewed by other experts and are great sources because they are very reliable but do not take too long to read. You can usually search databases of scholarly journals (Proquest is a good place to start) on your college’s library website. Books are obviously a good source too. Search your library’s catalogue for books related to your topic. When you find the section of the library that has books about your topic, look around on the shelves a bit because you may find other books that did not come up in the catalogue but are good sources as well. Also, in any book or article, there should be a “Works Cited” or bibliography in the back. Use this to find other sources that might be helpful to you. Ask your librarian if you need help finding sources. Librarians are generally wonderful people. Also, keep track of your sources as you research so that you know where all of your information is coming from.
- **Refine your argument.** As you are doing your research, you may discover that you need to change your argument based on the information you have learned. Feel free to do that, and feel free to re-organize your outline. As a side-note, make sure that you have an argument in your paper. Making an “argument” doesn’t necessarily mean that you are aggressively trying to persuade someone to agree with you; it just means that you are making a claim rather than simply stating facts.
 - Let’s go back to the polar bears to illustrate this: Perhaps as you are researching, you discover that it’s not just what polar bears eat that helps them live in the harsh Arctic environment, but also how they digest what they eat. (Don’t quote that. This is just an example. It’s probably not true.) Now, you will be making an argument that what polar bears eat *and* how they digest their food helps them live in an Arctic environment. You can see that this is not exactly a passionate argument about a highly controversial and emotional topic, but you are making a cause-and-effect claim: Polar bears eat certain foods and digest them in a certain way **SO** they are able to survive in the Arctic.
- **Write a thesis statement.** A thesis statement clearly states the argument of your paper in one or two sentences. It should be somewhat broad, but also specific enough to address all parts of your argument. It should guide your whole paper. If you find that you are arguing something different in your paper than you wrote in your thesis statement, you either need to change the paper or change the thesis.
 - Here are some bad and good examples of thesis statements for the polar bear essay:
 - Bad: The food polar bears eat allows them to live in the Arctic. (This doesn’t address the part of your argument about the way polar bears digest their food. It could also be more specific. What kind of food? How does it allow them to live in the Arctic?)
 - Good: Polar bears eat fatty foods and digest them slowly, which regulates their body temperature and provides them energy, thus allowing them to live in the harsh environment of the Arctic. (This thesis answers the questions that the

other statement did not, and it addresses all parts of the argument. It also sounds smarter. Note: Again, this is probably not actually true. It is just an example. But it sounds convincing, right? It's a good thesis.)

- **Write your paper!** If you made a good outline with a lot of good research, actually writing the paper should not be difficult at all. Basically, you just need to put your outline into paragraph form. You might decide you don't need all of the research you did, and that's okay, or you may discover you need to do more research, and that's fine too. If you can't think of a catchy introduction for your paper right away, don't worry about it. Start with your thesis and jump right into your argument. You can come up with a good introduction later.
- **As you write, weave in your research.** Weave it in using a variety of methods including summarizing, paraphrasing, and quoting. Always make sure to cite anything you write that is not your own idea even if you just summarize it! When you are using quotes, do not just drop them in the middle of a paragraph; put them into sentences and make sure that you explain how they are relevant.
 - Let's look at some bad and good ways we could weave in some quotes about our furry white friends. (Again, these are just examples, not real quotes or facts!)
 - Bad: Polar bears live in the Arctic. "The temperatures often reach forty degrees Fahrenheit below zero or lower." They have to eat fatty foods to survive. (This quote is just thrown in the middle of some other sentences with no introduction and no explanation. It is also not cited.)
 - Good: Polar bears live in the Arctic. In the Arctic, "temperatures often reach forty degrees Fahrenheit below zero or lower" (Smith 50). Clearly, the Arctic is a very cold environment, so polar bears have to eat fatty foods to survive. (Much better! The quote is woven into a sentence, has a citation, and has an explanation of its significance.)
- **Pay attention to writing style.** Not only do you want a clear argument with research and evidence that supports it well, but you also want a paper that flows well and is interesting to read. Vary the length and style of your sentences and mix up your vocabulary. If you find yourself using the same word again and again, try right-clicking on the word and clicking on "Synonyms" in the box that comes up. A whole list of similar words should appear. Also, make sure to make your writing as concise as possible. "Concise" writing says what it needs to say in as few words as possible and is thus easy to read. Finally, use a formal style. Don't use contractions (such as "don't"), slang, or a conversational tone (like this guide does). You are an expert on your topic, so act like it!
 - More polar bears! Here are examples of bad and good writing styles:
 - Bad: Polar bears live in the Arctic. The Arctic is very cold. Polar bears have to eat special foods to live in the cold. (All of these sentences are pretty short and structured similarly, and the wording is repetitive.)
 - Good: Polar bears live in the Arctic, where it is very cold. To live in such a frigid environment, they have to eat special foods. (Now the sentences have different structures—the second sentence starts with an introductory clause before the

main clause—and the second “cold” has been replaced with the synonym “frigid.”)

- **Make an interesting introduction and a captivating conclusion.** Your introduction should catch the reader’s attention, and the conclusion should somehow explain the significance of your research. Why should the reader care about it?
 - Another polar bear example: For an introduction to your paper, you could start with a statistic about polar bears or a descriptive story about polar bears searching for food. In your conclusion, perhaps you would emphasize again how harsh the environment is in the Arctic and discuss how amazing it is that polar bears have been able to adapt to it through their diet and digestive system.
- **Revise and proofread.** Don’t be afraid of completely re-writing or re-organizing your paper if you find that it doesn’t make sense. You may have to do that. On the other hand, you may just have a few sentences to clarify and some grammar mistakes to fix. Just make sure to read the paper over multiple times to ensure that your argument is clear and there are no errors. Reading it out loud to yourself is a good strategy.
- **Cite your sources.** If you don’t cite your sources, you could get in big trouble for plagiarizing. If you wrote anything that was not your own idea, make sure you have an in-text citation right after it showing where you got the idea from. You will also need to have a “Works Cited” page at the end of your paper that lists more information about every source that you used. To know the correct way to format your citations, ask your teacher or professor what citation style to use (MLA, APA, or Chicago). Then, go to <https://owl.english.purdue.edu/owl/> to see how to do the MLA or APA format or to http://www.chicagomanualofstyle.org/tools_citationguide.html if you need to do the Chicago format. Make sure that you follow every detail of the format—every period, every date, every page number—because some teachers and professors are really picky.
- **Celebrate!** When you are done, treat yourself to some ice cream or something. Research papers are a lot of work, but if you write about a topic that interests you and/or you make up your mind to learn something new from the process, it will be very rewarding.
 - One last polar bear example: Here’s how to celebrate polar-bear style!

