

Semester Project Summary

You can choose any of the following project types to go along with your chosen project topic. Or you can make up your own project! You should choose a project that matches your skills and that you can do well. You will submit your outline detailing what your project type will be and how you plan on executing it on **February 26th – March 2nd**.

Paper: If you choose to write a paper, it should be 5 (full) pages (not including citations or title page), 12 pt font, double spaced, etc. Don't try to mess with the margins to make your paper appear longer since that will stand out against the other papers. Please do not exceed 6 pages. I will be a little lenient if you write a very good paper in 4 pages, but don't attempt to turn in a two page paper. Your sources should be listed on an additional page and can be done in any format. In-text citations are *required*.

Children's Book: Writing a children's book does not mean that you can make things up or include less information. You will need a thorough understanding of the material (and some creativity) to accomplish this. You must convey accurate scientific information in a clear, engaging, fun way that a child would enjoy and understand. Do not just list the facts about your topic, try to tell a story that includes that information instead. You should construct the book so that it is easy to open and easy to read (consider your colors carefully). You will be graded upon the quality of your book and your ability to convey accurate information. Your citation of the sources should be included.

Powerpoint Presentation: Your presentation should last 10 minutes, and so you will need however many slides is necessary to accomplish that. By choosing this project type, you will be required to present the presentation on **April 9th – 13th**, before the end of labs, but you will also receive the 3 extra credit points for presenting. You should cite your sources at the end of the presentation and email me a copy.

Poster or Craft Project: If you choose a more hands-on/creative topic like a poster, craft project, etc., you should still write a 1 page (minimum) "paper" describing your creation that includes any relevant scientific information. Basically, include everything you would want to say about it if you presented it in person. You should also cite your sources. If you choose a poster, make sure it is a *larger cardboard poster*, not the kind that can be easily rolled up or the miniature trifold kind.

Sundial Project: There are several types of sundials that you can choose to make. Be sure to use materials that will not fall apart easily. You should keep a log of your attempts to use the sundial, at least 10 entries spanning over 2 weeks. Similar to the craft project description above, you must include at least 1 page describing your project, any relevant scientific information (like how and why these work), and some information on the history of sundials. Citations must be included.

When citing sources, Wikipedia does not count. It can be a good place to start in order to get big picture concepts and to get you thinking, but you should seek out more reliable sources: published works (textbooks, scholarly papers, even science journalism for a general audience -- e.g., Scientific American, Popular Science, etc.). Public outreach websites from academic institutions and places like NASA are ok, too, but they shouldn't be your only sources. Remember that this is a research project and the quality of your work should reflect that.

If you would like to present your project, one that isn't a powerpoint presentation, you must present for a full 5 minutes to receive the extra credit. You also will not be required to submit the additional 1 page "paper" since you will be presenting that information instead. The presentation of all projects, including powerpoints, will be on **April 9th – 13th**.

All other projects will be due on the last day of lab, **April 16th – 20th**.