The Project: Design, conduct, and analyze a comparative experiment. You may either work alone or with a partner. If you choose to work with a partner, it is expected that the division of labor be clearly spelled out in your proposal and final report.

Proposal: It is expected that you will submit a project description by May 18. The project description should contain the following elements:
(a) A clear statement of the goals of the project.
(b) A detailed description of the experiment itself.
(c) A discussion of what will be necessary to analyze the data you will collect.
(d) A discussion of any special difficulties you anticipate, such as
   (i) how to quantify and measure the response;
   (ii) unwanted sources of variation, and how you might reduce or eliminate them.

Project Report: You will be required to submit a final report on your project by Friday June 9. This should be written in the style of a short research paper, suitable for submission to a reputable scientific journal. (It is not required that your report actually be published, only that it be suitable for publication.) Your report should contain the following elements:
(a) A discussion of the problem.
(b) A description of the experiment.
(c) An analysis of the data collected.
(d) Discussion of flaws in the experiment, if any.
(e) Conclusions.

Caution: Please be aware that certain practices are frowned upon in experimental science. These include (but are not limited to)
1. Fudging data.
2. Attaching your name to research to which you did not really contribute (parties of 2, please take note).

Recommended Reading: Appendix 11A of BHH.