Preparing a Research paper

A good research paper is the finished product in written form of your research project. It should be done carefully, using clear and concise language, checked for grammar/punctuation that would detract from the communication of information about your study topic. Write the paper from the vantage point that your reader will not have extensive knowledge of your topic; use it as a way to ‘instruct’ your reader about your work.

There is no specific format or structure for the research paper and different references will suggest different details. What is outlined below is purely a suggestion and it can be modified, based on the preferences of the researcher (you). However while the format is suggested, a good research paper includes the following information, even if in a different format:

- Title page: project title, name, address, school, and grade
- Table of contents: number each chapter
  - Chapter 1: Research problem--should explain the background information on your study and the reasoning behind your choice of this topic. Establish a good rationale for the study ending with the statement of the hypothesis.
  - Chapter 2: Review of the literature--includes what the scientific literature says about your study topic, what is known, what is not known, and where your study fits into the body of knowledge.
  - Chapter 3: Methods—describe in detail what your procedures and materials are being employed to answer your research question. Photos, drawings, etc will be helpful. Include how data are collected and how they will be analyzed.
  - Chapter 4: Results—present the data collected in table/graph form (raw data goes in the logbook) and summarize in narrative form data collected. Include analysis of data if appropriate.
  - Chapter 5: Conclusion—explain what your data say and compare your results with expected results or literature cited. This chapter is concluded with a summary statement of your results and whether or not your hypothesis was supported. An acknowledgements section is appropriate if help was received in the person of a mentor, parents, teacher, or other sources.
  - References: this should be an alpha list of references by author and should also include any material that was not your own
  - Appendix: information that is important to the study but does not fit in any of the sections above (copies of instruments, raw data, diagrams, signed consent forms, etc).