



PRSEF Junior and Intermediate Division Project Report Instructions

A written submission of work completed is required for all Junior and Intermediate Division projects at PRSEF. The submission may take one of two forms:

A set of **PRESENTATION SLIDES** which include all of the elements in the template below.

OR

A **WRITTEN PAPER** using the template below.

PRSEF Junior and Intermediate Division Project Report Template

Instructions: Use the following template and the scientific method or engineering design process to create your final project report for PRSEF. Do not include information which is not specified in the template. If you are submitting a continuation project, include only information related to this year's project unless otherwise directed in the instructions below. This submission is required of all fair participants and will be used in the category judging process. You may use any software tools you want to prepare your report, but the final report must be a single PDF document.

Project ID and Title (DO NOT include your name)

Abstract (suggested max. 250 words)

The abstract summarizes the information contained in the rest of this document. An abstract includes: (a) the research question or engineering problem, (b) procedures used, (c) data, (d) interpretation and (d) conclusions. It also may include any possible research applications. Information not specifically included in these instructions should not be included in the abstract.

What was your research question or engineering problem? (suggested max. 400 words)

Explain what is known or has already been done in your research area. Include a brief review of the background materials you read. If this is a continuation project, a brief summary of your prior research is appropriate here. Be sure to distinguish your previous work from this year's project.

What were you trying to find out? What problem were you trying to solve? Include a description of your purpose, your research question, and your hypothesis or engineering goal.



Explain your methodology and procedures for carrying out your project in detail, addressing the questions below. For engineering projects, explain your methods and procedures for building your design. (suggested max. 400 words)

What did you do? DO NOT copy a list of steps from sciencebuddies.com or other similar sites.

What data did you collect and how did you collect that data? Discuss your control group and the variables you tested.

For engineering projects, how did you design and produce your prototype? What were your testing procedures?

DO NOT include a list of materials.

What was the result(s) of your project? (suggested max. 250 words)

Attach data tables and graphs which illustrate your data. What does each graph or table say to you? What is it showing? How do the labels and numbers on the axes on the graphs relate to each other? Include relevant averages or other statistics.

What is your interpretation of these results? (suggested max. 250 words)

What do these results mean? Compare your results with theories, published data, commonly held beliefs, and expected results.

Discuss possible errors. Did any questions or problems arise that you were not expecting?

What conclusions did you reach? (suggested max. 250 words)

How do the results address your research question or engineering problem? Do your results support your hypothesis?

What do these results mean in the context of your background research? What applications do you see for your work?



List References

Include any documentation used which was not of your own creation (i.e., books, journal articles). See an appropriate reference in your discipline or look to <https://www.wlnonline.org/PRSEF> or <https://owl.purdue.edu> to learn more about how to format your bibliography. Website addresses / links / urls alone are not acceptable references. A minimum of 5 high quality scientific sources must be included.