**Abstract**

An abstract is like the “blurb” on the back of a book or novel – it’s there to briefly sum up the “story” and convince the audience to dive in and read the rest of it. It comes at the beginning of a report, just like a good “hook” should be at the beginning of a story to draw the reader in. But since an abstract covers everything in the entire report, it should always be written last, once every other part is complete.

The abstract is always pretty brief, usually just a paragraph or two. But it can be a challenge to write because you have to narrow down and distill only the most important points in the project. Usually, it looks something like this:

* A sentence or two describing the **Purpose** of the project. (The purpose is not the same thing as the goal/objective. By purpose, I mean, “What’s my motivation to read this whole big, long report? Why should I even care about this experiment and its results?”) Briefly describe the relevance of the project to school or life, more broadly. How could doing this experiment, or the results of this experiment, ever help anybody or be applied elsewhere?
* A sentence or two restating the **Question** or **Problem**. In an Engineering Project (as opposed to a regular, classic experiment) the question/problem is very closely related to the Goal/Objective. Essentially, the “question” of an Engineering Project is, “How can I engineering something to meet my Objective?” So you’ll want to describe the Goal/Objective in this section of the report. (Note: Everything doesn’t have to be in this exact order in the Abstract. It may make more sense, for example, to put the Question/Problem/Goal/Objective before the Purpose, and that’s fine.)
* A few sentences describing your **Methods** or **Procedures**.How did you go about solving the problem or engineering something to meet your goal? In this instance, we Brainstormed, did background research to learn about the important concepts in Physics related to our goal, use a Computer-Aided Design program (or “CAD” program, for short) to design and virtually test or initial models, before finally building a prototype, field testing it, and making modifications as necessary. You should tell me a little bit about each of these steps. In particular, you should tell me about what variables you found to be important and how they affected your overall design. (In this case, the variables you experimented with include all the materials used to build the Mousetrap Car, as well as their configuration or arrangement.) If you were going for distance, what specifically did you do to make your model as a good distance-traveler?
* A sentence or two describing the **Results** of your testing.You just described your model and how you arrived at that particular design. So, how’d it do? Did you reach the objective? Here’s where you should put your actual final number. How many meters did you travel? (You may need to convert from feet.)
* A sentence or two describing the final **Conclusions** from this project. Based on your results, what have you learned? Was your model and design indeed the optimal (best) model or design? If not, what would have improved it? What worked well and what didn’t? If someone in another class were to build a Mousetrap Powered Vehicle for distance, what would be your recommendations?

This is the only section of the report where I’ve written way more than you should! If you count up what’s described in the bullet points above, it only comes to between 7 to 12 sentences. An abstract should easily fit on one page, it not half a page! They’re typically less than 200 words. (To give you an idea, **this** is word 620 from the section title, “Abstract.”) If you need more guidance, check out <http://www.sciencebuddies.org/science-fair-projects/project_abstract.shtml>. The process for writing a Science Fair abstract is about the same as any other project.