

Science Fair Projects: A Quick Guide to Abstracts

What is an abstract?

An abstract is a brief, written description of your project that explains your project's purpose, procedures, data, and conclusions. It is a self-contained summary that tells the reader why they should care about your project and what you found out. The abstract is concise, but complete—it communicates the essence of your project.

How do I write an abstract?

ISEF limits abstracts to 250 words, so you need to be succinct—focus on the big picture. Here are a couple of templates:

Science Experiment. For a science experiment, start with an introductory statement about why you are doing your project. What are you trying to find out, and why should your readers care? Then, state your question/problem and your hypothesis. Next, summarize your methods. You don't have a lot of space, so only mention the key points of your procedures. Then give the highlights of your data and data analysis, followed by your conclusions. The very last part of the abstract should discuss the applications and implications of your project.

Engineering Project. The abstract for an engineering project will be similar, but there will be a few changes. Start with an introductory statement about why you are doing your project. What problem are you trying to solve? What need are you trying to address? Why should your readers care? Then, state your design goal and describe your initial design. Next, summarize your iterative process of designing, testing, rebuild, and retesting. You don't have a lot of space, so only mention the key points of your process. Then give the highlights of your data analysis from tests of prototypes, followed by your final designs. The very last part of the abstract should discuss the applications and implications of your project.

Are abstracts important?

Yes—very! Abstracts are an incredibly important part of technical communication. Scientists, engineers, and mathematicians have to wade through a vast amount of literature. They don't have time to read all of it, so they use abstracts to decide if an article is worthwhile. If the abstract is interesting and relevant, a scientist might read the accompanying article. If the abstract isn't, a scientist stops reading and moves on.

Just like scientists, science fair judges read your abstract and may make preliminary judging decisions based on your abstract. A good abstract is like a good first impression—it goes a long way.

Do you have any other tips?

- An abstract isn't an email or text message, so use complete sentences and proper English. Leave out the LOL's, TTYL's, @'s and w/o's.
- Have someone proofread your abstract.
- Focus on the big stuff; don't include nitty gritty details.
- Do include numbers. For example, instead of "the sedimentary rocks were less dense than the metamorphic rocks", try, "the sedimentary rocks were 10% less dense than the metamorphic rocks.
- Sell your project. You don't have a lot of space, but you want to make sure that your reader doesn't leave asking, "So what? Why should I care?".