

SCIENCE FAIR ABSTRACT GUIDE

You will find the official abstract form here:

<https://sspcdn.blob.core.windows.net/files/Documents/SEP/ISEF/Resources/Abstracts/21-Categories.pdf>



Credit: Regeneron International Science Fair

Tips for writing the abstract:

What is the purpose of the abstract?

The abstract should be a brief, yet comprehensive synopsis of the research project. It should seek to highlight the research question(s), experimental procedures, data, and conclusions in a way that is concise and easy to understand. It will be reviewed by The general public and other fair visitors read the abstract for a quick overview of the research design and findings.

Rules for completion:

The abstract should be 250 words or fewer. Do not discuss specific aspects of the research in great detail, including experimental procedures and statistical methods. Any information that is unnecessary to include in a brief explanation should be saved for the written research paper or the project exhibit board.

If the project is a continuation from a previous year, the abstract should summarize the current year's work only. If mention of supporting research from previous year(s) is necessary, it must be minimal.

If the abstract text includes special characters, such as mathematical symbols, which won't be translated electronically, please spell out the symbol.

Do not include acknowledgements in the abstract. This includes any references to mentors, institutional facilities, and awards or patents received.

All abstracts must be submitted on the Regeneron ISEF online system. Many regional and state fairs also use the Regeneron ISEF Official Abstract Form, which can be found [here](#). This form is not necessary for most local fairs.

What should the abstract include?

Title

Student's Name

School Name, City and State, Country

Purpose

- An introductory statement providing background, namely the reason, for investigating the project topic.
- A statement of the problem the research is looking to solve or the questions being tested.

Procedure

- A brief overview of how the investigation was conducted, highlighting key points, and including methods and resources used.
- Do not provide details about materials used in the research unless they greatly influenced the procedure or were needed to conduct the investigation.
- An abstract should only include procedures done by the Finalist. Do not include work done by a mentor (such as surgical procedures) or work done prior to the Finalist's involvement.

Observations/Data/Results

- This section should provide key results that lead directly to the conclusions you have drawn.
- Do not include unnecessary data or observations about the results, nor tables, charts, graphs or other images. While these belong in the research paper or the project board, they do not belong in the formal Regeneron ISEF abstract.
- Unless significant, do not include any of the experimental design difficulties encountered in research.

Conclusions

- This section should be confined to a short summary in 1-2 sentences. It is a reflection on the research process and results, which may include conclusive ideas, important applications, and implications of the research.
- The Regeneron ISEF abstract does not include a bibliography. The Regeneron ISEF requires the bibliography as part of the research plan to be provided on Form 1A.

Best practices:

Remember- Revision is Key

- Make sure that the abstract includes all parts outlined in this guide
- Omit unnecessary details and discussions
- Use the past tense in descriptions
- Write in short, but complete sentences
- Avoid extra jargon and any slang
- Use concise wording throughout, especially when expressing concepts and processes with scientific language
- Check for correct spelling, grammar, and punctuation
- Ask for writing help from an English teacher or librarian. Writing an abstract is an exercise in using language effectively to convey scientific ideas and procedures.
- It never hurts to have an extra pair of eyes glance it over

Sample abstract

Please view the following example abstract, which is displayed two ways: In paragraph form, and divided in parts to show how it would fit the general abstract template.

Snot Science: How far does a sneeze travel?

Bethany Brookshire, Ph.D.

Science News for Students, Society for Science & the Public, Washington, D.C.

ABSTRACT

Viruses, such as those that cause colds and influenza, spread via droplets of mucus that are produced when an infected person sneezes or coughs. Using thick and thin mucus and a model sneeze, we tested the hypothesis that thin mucus will travel farther than thick mucus.

Thin and thick mucus were represented by 1-milliliter volumes of colored water or a mixture of corn syrup and gelatin, respectively. Fluid was squirted from a plastic dropper with enough force to model a sneeze. Each sample was analyzed for maximum distance traveled and distribution of droplets. Data was analyzed using a two-tailed t test.

Compared to thick mucus (mean distance of 110.8 cm, SD 103.7 cm, n=26/group), thin mucus squirted a greater mean distance (302.4 cm, SD 45.06 cm, n=26/group, $p < 0.0001$, Cohen's $d = 2.395$). Thick mucus traveled a maximum of 310 cm. Thin mucus traveled a maximum of 400 cm. Thick mucus also formed fewer visible droplets, and droplets concentrated closer to the origin of the "sneeze."

This study showed that thin mucus travels farther than thin mucus in the plastic dropper sneeze model. Thin mucus traveled a maximum of 400 cm, suggesting a potential spread of virus-containing particles of up to 4 meters in our tests. Further experiments will clarify differences in viscosity between thick and thin mucus and potential differences in droplet size.

Works consulted

Cole, John. (2008). Mastering the Abstract Writing Process.

Caprette, David. (1995, August 25). How to Write a Research Paper. Retrieved from Rice University, Experimental Biosciences Web site: <http://www.ruf.rice.edu/~bioslabs/tools/report/reportform.html#abstract>

Carroll, Leah. HOW TO WRITE AN ABSTRACT: Tips and Samples. Retrieved from University of California Berkeley, Office of Undergraduate Research Web site: <http://hsp.berkeley.edu/sites/default/files/HOW%20TO%20WRITE%20AN%20ABST...>

The Writing Center at UNC-Chapel Hill. Writing Abstracts. Retrieved from:

<http://writingcenter.unc.edu/esl/resources/writing-abstracts/>

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