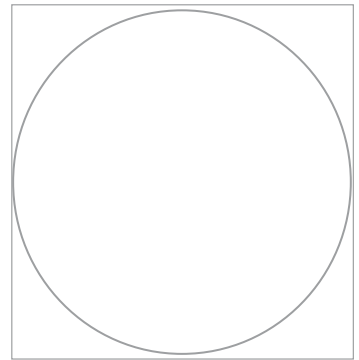


## OFFICIAL ABSTRACT and CERTIFICATION

**Category**  
Pick one only—  
mark an “X” in  
box at right

- Animal Sciences
- Behavioral and Social Science
- Biochemistry
- Biomedical and Health Sciences
- Cellular and Molecular Biology
- Chemistry
- Computational Biology and Bioinformatics
- Earth and Environmental Sciences
- Embedded Systems
- Energy: Chemical
- Energy: Physical
- Engineering Mechanics
- Environmental Engineering
- Materials Science
- Mathematics
- Microbiology
- Physics and Astronomy
- Plant Sciences
- Robotics and Intelligent Machines
- Systems Software

1. As a part of this research project, the student directly handled, manipulated, or interacted with (check ALL that apply):
  - human participants                       potentially hazardous biological agents
  - vertebrate animals                       microorganisms                       rDNA                       tissue
2. I/we worked or used equipment in a regulated research institution or industrial setting:       Yes       No
3. This project is a continuation of previous research.                       Yes       No
4. My display board includes non-published photographs/visual depictions of humans (other than myself):       Yes       No
5. This abstract describes only procedures performed by me/us, reflects my/our own independent research, and represents one year’s work only       Yes       No
6. I/we hereby certify that the abstract and responses to the above statements are correct and properly reflect my/our own work.       Yes       No



*This stamp or embossed seal attests that this project is in compliance with all federal and state laws and regulations and that all appropriate reviews and approvals have been obtained including the final clearance by the Scientific Review Committee.*

### **COMPLETING THE ABSTRACT:**

Abstracts are limited to a maximum 250 words and must fit within the predefined area. Please be sure to consult the information from your affiliate fair for the proper formatting of the header information as fairs differ in what is required (or not allowed).

The abstract **should include the following:**

- a) *purpose of the experiment*
- b) *procedure*
- c) *data*
- d) *conclusions*

It may also include any possible research applications. Only minimal reference to previous work may be included. An abstract **must not include the following:**

- a) *acknowledgments (including naming the research institution and/or mentor with which you were working), or self-promotions and external endorsements*
- b) *work or procedures done by the mentor*

### **COMPLETING THE CERTIFICATION:**

At the bottom of the Abstract & Certification form there are six questions. Read each carefully and answer appropriately. The Affiliated Fair Scientific Research Committee will review and approve the abstract and answers to the questions.

Please bring a copy of your Abstract & Certification to the fair and be sure to consult with your affiliated fair regarding the rules of making copies to distribute.

### **TIPS ON WRITING A PROJECT ABSTRACT**

A project abstract is a brief paragraph or two (limited to 250 words or 1,800 characters) highlighting and/or summarizing the major points or most important ideas about your project. An abstract allows judges to quickly determine the nature and scope of a project.

- Emphasize these aspects: purpose (hypothesis), methods (procedures used), data summary or analysis, and conclusions.
- Focus only on the current year's research.
- Omit details and discussions.
- Use the past tense when describing what was done. However, where appropriate use active verbs rather than passive verbs.
- Use short sentences, but vary sentence structure.
- Use complete sentences. Don't abbreviate by omitting articles or other small words in order to save space.
- Avoid jargon and use appropriate scientific language.
- Use concise syntax, correct spelling, grammar, and punctuation.

### **AVOID A REWRITE**

- Focus on what you did, not on the work of your mentor or of the laboratory in which you did your work.
- Do NOT include acknowledgements, self promotion or external endorsements. Don't name the research institution and/or mentor with which you were working and avoid mentioning awards or honors (including achieving a patent) in the body of the abstract.
- Be sure to emphasize the current year's research. A continuation project should only make a brief mention of previous years' research (no more than a sentence or two).