

Preparing your Project Proposal for ACSEF

The project proposal Google Form will require the following contact information, project information, and components of the specific project proposal:

Contact information (if you are on a team - elect a Team Captain. Team Captain must know the NON-SCHOOL email address of EACH team member for the project proposal Google Form)

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1. Name of the student submitting this project proposal for SRC/IRB review. If you are on a team only the TEAM Captain submits the project proposal.
2. The submitting student's **Non-School email address** (or parent/guardian's email address) DO NOT INPUT A SCHOOL EMAIL ADDRESS. A Gmail address is preferred for ease of opening subsequent Google Document links we will send upon approval.
3. The email address of the parent/guardian of the person submitting this project proposal.
4. Student or Team Captain - Provide your home mailing address including street, city, state, zip code (ex: 1111 Jones Rd., Oakland, CA, 94588)
5. Student or Team Captain - Are you in Middle or High School
6. How many people are doing this project? 1, 2, or 3
7. If this is a team project (Teams consist of 2 or 3 students) input the names of each team member including your own name listed first then the others separating each with a comma. Type NA if this is NOT a team project.
8. If this is a team project as team captain you have already provided your nonschool email. Please provide a second-team member's nonschool email address. If this is a 3 member team you'll provide the third member's email in the prompt below. If it is NOT a team project at all - Type NA
9. If this is a team project as team captain you have already provided your own and one other team member nonschool email. Please provide the third team member's nonschool email address. If it is NOT a three-person team project or not a team project at all - Type NA
10. If this is a team project input the grade division Middle or High school of the team members. Note- no mixed MS/HS teams are allowed.
11. Name of the school the person submitting the project proposal attends. If home or online schooled type Home or Online (*Note: If you are **remote learning** at your home right now it is not considered Home or Online).
12. County where your school is located.
13. Please indicate if your school holds a science fair or uses another selection process to determine projects selected to participate at ACSEF. This can be verified by contacting the school Principal via the email provided later in this proposal form.

14. Student or Team Captain - Your current science teacher's email address (look it up or ask if you don't know).
 15. Student or Team Captain - Your school Principal email address (look it up or ask if you don't know!).
 16. My/our project will be supervised or mentored by an adult **OTHER than my school science teacher AND this adult holds an advanced degree** (Masters, Ph.D., or research/work experience of 3+ years) **in the area of my research**.
 17. Student or Team Captain - If your project is being mentored by an adult with an advanced degree and is not your science teacher - Provide the project PI or mentor's email address. Otherwise, type NA.
 18. My/our project will be performed at a college or professional lab. ***Your middle or high school is not a college nor a professional lab. If you are looking for a lab we suggest you look into FremontStem <https://www.fremontstem.org/> or Biocurious <https://biocurious.org/> or Schmahl Science Workshop <https://schmahlsience.org/individual-research>
 19. Student or Team Captain - If you responded YES to "My/our project will be performed at a college or professional lab" you are REQUIRED to provide the name and address of the lab.
Type NA if your project is not being conducted at a college or professional lab.
 20. Project proposal: Has 6 parts.
 21. Does this project meet or exceed the Minimum Quality Standards at this link below. I understand that if my project is later found to not meet minimum quality standards that it may be required to be re-written and resubmitted or be disqualified.
<https://docs.google.com/document/d/1gRNVzVqzdgtoGlihxTEyn52mrlKDDGGC/CyCxN62weUY/edit?usp=sharing>
- a) Rational: Include a brief (1-2 sentences only) explanation of why this research is potentially important including any potential societal, medical, environmental, or scientific impact.
 - b) If this is a SCIENCE PROJECT - be sure to provide the Research Question(s) & Hypothesis(es) as they relate to the provided rationale statement above **OR** if it is an ENGINEERING PROJECT- Be sure to state the Engineering Goals & Expected Outcomes as they relate to the provided rationale statement.
 - c) Write a brief Procedure (science project) or Experimental Design (engineering project) including a control group and methods for data collection being sure to include enough detail for SRC/IRB to ensure that your project is well thought out & you have done some background research, therefore, can include enough detail to ensure all rule and safety requirements will be met.

If using chemicals list and describe how each is to be used or if using any potentially hazardous devices such as using class 2 or higher lasers, machine cutting tools, higher than normal heat, or voltage or if performing potentially hazardous activities such as using fire, working at excessive heights over 10', working in crowded spaces unable to maintain social distancing, etc.. The more detail you provide the better equipped we are to accept your proposal for application & registration to participate at the county level science fair 2021.

- d) Risk and Safety (Make sure you read through all the instructions that follow & consult Safety Data Sheets for chemicals, instruction, and precautions & safety information of machinery that is being used, etc. before writing Part 4): a.) Identify any potential risks and safety precautions including proper use & disposal of chemicals, culturing media, or other types of waste disposal that are needed to do the project. b) *If using human subjects you must indicate how you'll maintain and COVID safety guidelines, and anonymity of the data you collect - Most often this involves NOT asking for names. c) *If doing a wet lab - most wet labs involving microbes, chemicals, or human/vertebrate animal tissues involve some risks to yourself, others, or the environment. d) * If using ORGANISMS you MUST identify them by common and scientific names, and MUST identify the SOURCE, (e.g. dirt, biological company, toilet seat, etc.. e)* If using potentially hazardous tools or machines read all safety instructions and precautions. f) The bottom line is to THINK about what you are doing so the SRC/IRB feels confident that all safety concerns are met before answering "no risks". And include any adult supervision that is available to you.
- e) Data Analysis: Describe the procedure you believe you'll use to analyze the data/results. For example, you may be thinking you will determine the average of all trials and compare them to the control trial data, etc.
- f) Google Search: This step is to help ensure your project is competitive and possibly unique. It is required that you do a Google Search of your Topic. We encourage using **Google Scholar** and **including the word "abstract"** before the main body of the search question for example "Abstract building a better mousetrap".

This is most likely to provide you with existing research related to your topic. In the answer section include each of the following:

- a) Provide 2 questions related to your project that you searched in order to gather background information.
- b) Provide the number of results you obtained from each search question. For example, the results of the search on "abstract building a better mousetrap" produced "About 12,900 results (0.15 sec)". Where do you find the results? Look in the upper left of the screen above the list of URL provided by the search.

21. Does this project meet or exceed the Minimum Quality Standards at this link below. I understand that if my project is later found to not meet minimum quality standards that it may be required to be re-written and resubmitted or be disqualified.

<https://docs.google.com/document/d/1gRNVzVqzdgtoGlihxTEyn52mrIKDDGGCCyCxN62weUY/edit?usp=sharing>

22. This project is not on the Projects To Avoid shown at the link below and I verify that my project will NOT later be found to meet the criteria of projects to be avoided or be found on the list of projects. I understand that my project proposal may be denied if it meets the projects to avoid criteria or is on the list.

<https://docs.google.com/document/d/1QDMqSWgJPmJymjzLZ0v82k-DkGL0QaK1a7ImKSLUFQM/edit?usp=sharing>

23. My/our project will be a continuation of a previous year's research. Link to description of continuation projects. Yes or No

<https://student.societyforscience.org/rules-all-projects#Continu>

24. My/our project will use human participants completing surveys or other cognitive or physical tests or tasks, or use humans to test my/our engineered device, prototype, app, etc.. Link to Rules for Human Participants. Yes or No

<https://student.societyforscience.org/human-participants>

25. My/our project will culture (grow on/in a nutrient environment) microbes such as (yeast, bacteria, fungi, algae, protozoa, viruses) in the experiments. IMPORTANT NOTICE: All microbe culturing other than Baker's or Brewer's yeast and live yogurt microbes MUST BE done at a high school (no middle school or home settings) or a professional lab or university. Link to Potentially Hazardous Biological Agent rules. Yes or No

<https://student.societyforscience.org/potentially-hazardous-biological-agents>

26. My/our project will use human or vertebrate animal bodily fluids or tissues. Link to Potentially Hazardous Biological Agent rules. Yes or

No <https://student.societyforscience.org/potentially-hazardous-biological-agents>

27. My/our project will use the culturing of human or animal waste Link to Potentially Hazardous Biological Agent rules. Yes or No

<https://student.societyforscience.org/potentially-hazardous-biological-agents>

28. My/our project will use vertebrate animals in a way that manipulates their behavior, habitat, or nutrition. Link to Vertebrate Animal rules.:Yes or No

<https://student.societyforscience.org/vertebrate-animals>

29. My/our project will result in the euthanasia of vertebrate animals for the purpose of obtaining tissue or results. Link to Vertebrate Animal rules. Yes or No

<https://student.societyforscience.org/vertebrate-animals>

30. My/our project will use recombinant DNA (rDNA) Link to Potentially Hazardous Biological Agent rules. Yes or No

<https://student.societyforscience.org/potentially-hazardous-biological-agents>

31. My/our project will use culturing or engineering of clinically significant multi-drug resistant organisms (MDROs). Link to Potentially Hazardous Biological Agent rules. Yes or No

<https://student.societyforscience.org/potentially-hazardous-biological-agents>

32. My/our project will use genome editing studies that include alteration of germline cells, insertion of gene drives, or use of rapid trait development systems (RTDS). Link to Potentially Hazardous Biological Agent rules. Yes or No

<https://student.societyforscience.org/potentially-hazardous-biological-agents>