



LA County Science & Engineering Fair



- **2024 In-person Fair Sun 3/10/ and Mon 3/11 at Shrine Expo Hall**
- **Virtual Awards Ceremony: Sunday, March 24th at noon**
 - Large parking lot or use the LA Metro “Expo” line off the Jefferson/USC exit



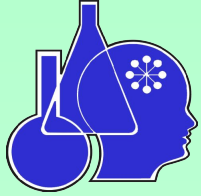
Longest running Regional Science & Engineering Fair in the West



GOALS

- Opportunities to apply **creativity** **critical thinking** to solve problems in the classroom.
- **Publicly recognize** achievements
- Opportunities for professional leaders to **network** with students & educators
- Promote **school-community cooperation** in developing scientific potential and skills





Non-Discrimination Policy

- The Los Angeles County Science and Engineering Fair is an **equal opportunity** for all events, regardless of age, ancestry, color, disability (mental and physical), gender, gender identity, sexual orientation, medical condition, national origin, race and religious creed. *Judges & volunteers bear the responsibility to act as guardians and custodians of the students during their volunteering. Their familiarity with the students' special sensitivities is imperative to the overall Science Fair effort to achieve an **equal opportunity for all environment, free of discrimination.***





Who Can Enter?

- Awards and scholarships in **36 categories** ranging from Biology to Engineering to Zoology
- Open to **Grade 6-12** students attending LA County **Public, Charter or Private** Schools or are **home-schooled**.
- Must compete in a **local school or district science fair** in order to qualify for regional competition **OR** be sponsored/mentored by a **research institution**

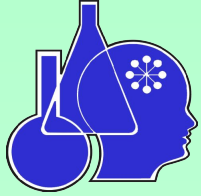




Team Projects

- No more than **THREE** people per team
 - Why does this **need** to be a **team** project?
 - Every team member should have **a unique contribution** to the project and be able to justify their participation.

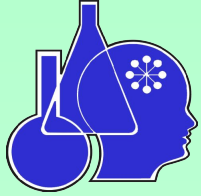




Key Fair Regulations

- Projects **MUST** be **PRE-SCREENED** by the teacher!
- Projects involving **tissues/cell lines, microbes, human subjects, vertebrate animals, hazardous chemicals** must have **LACSEF** online [pre-approval](#)
- Adhere to all federal, state, and local **laws**
- Work of the entrant and **work of others** is clearly distinguished
- A clear, concise **3 - 4 min video** explaining the project has to be uploaded for the **Judges to see** before interviewing.





Fair Categories

*** See [LACSEF Project Category details PPT](#) for more info

- **21 Junior Project categories**
- **15 Senior Project categories**



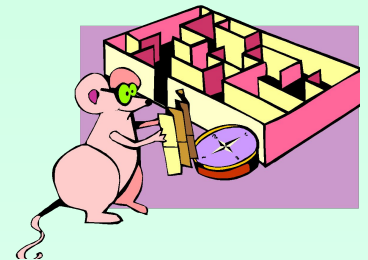
SR Science Fair Categories

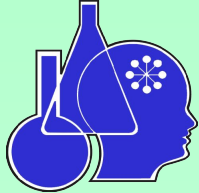
- Animal **Biology**
- Animal **Physiology**
- Behavioral/Social Sciences
- Biochemistry & Molecular Chemistry
- Chemistry
- Earth/Space Science
- Ecology
- Engineering **Applications**
- Engineering **Research**
- Environmental Management
- Mathematical/Computer Science
- Microbiology
- Pharmacology
- Physics
- Plant Biology & Physiology



JR Science Fair Categories

- Animal Biology
- Animal Physiology
- Behavioral Social Science - **Human**
- Behavioral Social Science - **Non-Human**
- Biochemistry & Molecular Chemistry
- Chemistry - **Applied**
- Chemistry - **General**
- Earth/Space Science
- Ecology
- Engineering **Applications**
- Engineering **Research**
- Environmental Management
- Materials Science
- Mathematical/Computer Sci
- Microbiology
- Pharmacology
- Physics-**Aerodynamics & Hydrodynamics**
- Physics - **Electricity & Magnetism**
- Physics - **General**
- Plant Biology & Physiology
- Product Science





ONLINE Registration

- Most LA County Middle Schools and High schools receive a notice for entry to the LA County SEF in **August, 2023** **CHECK the website**



- **ONLINE Registration** for the Site Science Fair Coordinator and School or Sponsoring Institution opens **Aug 14, 2023** to **January 22, 2024**.
- **LACSEF Fee & Waiver form** for submission



Being Updated: Detailed directions and links can be found at:
<https://lascifair.org/how-to-enter/school-enrollment-2/>



Site Coordinators

- To be a **school's Site Coordinator**, you must be an *adult designated the administration*. When you enroll your school online, you will have to **include your position** at your school.
- SC responsibilities, how to register schools/students and a **detailed PDF presentation** is available on **Google Slides** and the **LACSEF Padlet**:



Site Coordinator 101

71th Annual Los Angeles County Science & Engineering Fair

The Pre-approval Process

- Before beginning, please **MAKE SURE TO CLICK ON** and **carefully read** the new **Pre-Approval General Info** <https://www.lascifair.org/pre-approval/pre-approval-general-info> and the **sub-pages** on regulations for projects involving:
 - *tissue/cell lines*
 - *human subjects*
 - *live vertebrate animals*
 - *hazardous materials and/or*
 - *Microbes*
- **View [PPT presentation](#)** on the Pre-Approval process
- **FAQs** *specifically targeted problem areas for approval*



When in Doubt, Pre-approve!

- There is **nothing worse** than having a student try to register their project and find out that it needed pre-approval **AND IT'S REJECTED.**
 - The Pre-approval process *ends* before Student Registration *begins*. **There are no exceptions.**
 - Make sure that you and the students have carefully read all the pages on ALL 5 categories of pre-approval.
 - If it involves human subjects (a student cannot perform experiments/surveys on themselves), it needs pre-approval....period.
 - Hazardous materials can be iffy - be careful!
- Alternatives can be experiments on plants or invertebrates or simple engineering.
- **WHEN IN DOUBT, SUBMIT A PRE-APPROVAL!!**



Monitoring Your Dashboard

- Once students have submitted a project for pre-approval, Site Coordinators and teachers **need to keep track of the status of student submissions.**
 - You can see what has been **submitted**,
 - what is **awaiting verification** from supervisors,
 - what has been **denied** and **pending resubmission**,
 - and what has been **denied a second time**.
- You need to go into the student submissions to **see what needs to be fixed** so you can advise the student.
- *This **helps prevent projects from being denied by LACSEF** because students did not fix their proposals.*



Research Plan for Submission

- **Objective/Problem/Hypothesis** *(include evidence of search for alternative to vertebrate animals)*
- **Materials:** *(detailed)*
- **Bibliographic References** *(a minimum of 3 references, not exclusively Internet):*
- **Procedure/Research Techniques**
 - Provide a **clear and detailed description**/outline of proposed procedure, *including equipment to be used, safety measures, and disposal of hazardous chemicals.*
- **Risk Assessment:** detail any possible risks
- 2-3 more pages of information, ***digitally verified by return email from Supervising Adults***

Example: Pre-approval Research Plan Template (both Jr/Sr)

Complete before
going online to
submit proposal



Hazardous Materials Research Plan

I certify that I have read and understand the guidelines for hazardous material research and safety precautions as outlined in the [LACSEF Rules and Regulations](#)

In addition to this plan, I have also completed the following research plan(s) for this project

- ☐ Human Subject
- ☐ Vertebrate
- ☐ Tissue, Cell Lines, and Organs or Organ Parts
- ☐ Microbes
- ☐ No other research plan was submitted

Project Title:

- Title must be limited to X characters (including spaces)

Problem

- In the form of a question

Objective(s)

- Your goal for the project - why is it important

Hypothesis

Number of Project Team Members

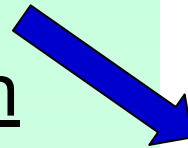
- This refers to the number of students conducting the project, not the number of test subjects.
- There are a maximum number of three students allowed on a project team..

Procedure/Experimental Techniques

- Provide a clear and detailed description/outline of proposed procedure, including experimental control groups, concentration/amount of chemicals, number of trials, equipment to be used, safety measures, and disposal of hazardous chemicals.
- List Hazardous Materials - List/identify the hazardous chemicals, activities, and devices that will be used, in detail. A proper list assessment of chemicals should include review

Working with Human Subjects

- **PRINT** the Human Consent Form section (last 2 pages of the template.) Every participant and their parent/guardian will need to receive of this form and ***sign their consent at the bottom*** before starting a project involving human subjects.
- This same information needs to be **entered ONLINE** at the LACSEF pre-approval webpage.



Adult Informed Consent
By signing this form, I am attesting that I have read and understand the information above and I freely give my consent/assent to participate.

Research Participant Signature: Date Reviewed & Signed:(mm/dd/yy):

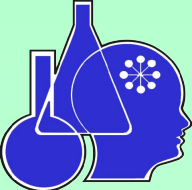
Research Participant Printed Name:

Minor Assent
Parental/Guardian Permission (if applicable)
By signing this form, I am attesting that I have read and understand the information above and I freely give my consent/assent to participate or permission for my child to participate.

Parent Guardian Signature: Date Reviewed & Signed:(mm/dd/yy):

Parent/Guardian Printed Name:

<https://lascifair.org/pre-approval/pre-approval-general-info/>



Sr Division Human Consent Forms

In addition, **Senior Division** students need to complete the fillable **ISEF Human Consent form** found [here](#). All participant forms have to be ***brought to the fair***, with signatures.

Human Informed Consent Form

Instructions to the Student Researcher(s): An informed consent/assent/permission form should be developed in consultation with the Adult Sponsor, Designated Supervisor or Qualified Scientist.

This form is used to provide information to the research participant (or parent/guardian) and to document written informed consent, minor assent, and/or parental permission.

- When written documentation is required, the researcher keeps the original, signed form.
- Students may use this sample form or may copy ALL elements of it into a new document.

If the form is serving to document parental permission, a copy of any survey or questionnaire must be attached.

Student Researcher(s):

Title of Project:

I am asking for your voluntary participation in my science fair project. Please read the following information about the project. If you would like to participate, please sign in the appropriate area below.

Purpose of the project:

If you participate, you will be asked to:

Time required for participation:

Potential Risks of Study:

Benefits:

How confidentiality will be maintained:

If you have any questions about this study, feel free to contact:

Adult Sponsor/QS/DS:

Phone/email:

Voluntary Participation:

Participation in this study is completely voluntary. If you decide not to participate there will not be negative consequences. Please be aware that if you decide to participate, you may stop participating at any time and you may decide not to answer any specific question.

By signing this form I am attesting that I have read and understand the information above and I freely give my consent/assent to participate or permission for my child to participate.

Adult Informed Consent or Minor Assent

Date Reviewed & Signed:
(mm/dd/yy)

Research Participant Printed Name:

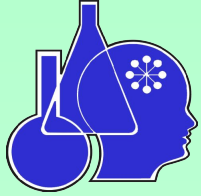
Signature:

Parental/Guardian Permission (if applicable)

Date Reviewed & Signed:
(mm/dd/yy)

Parent/Guardian Printed Name:

Signature:



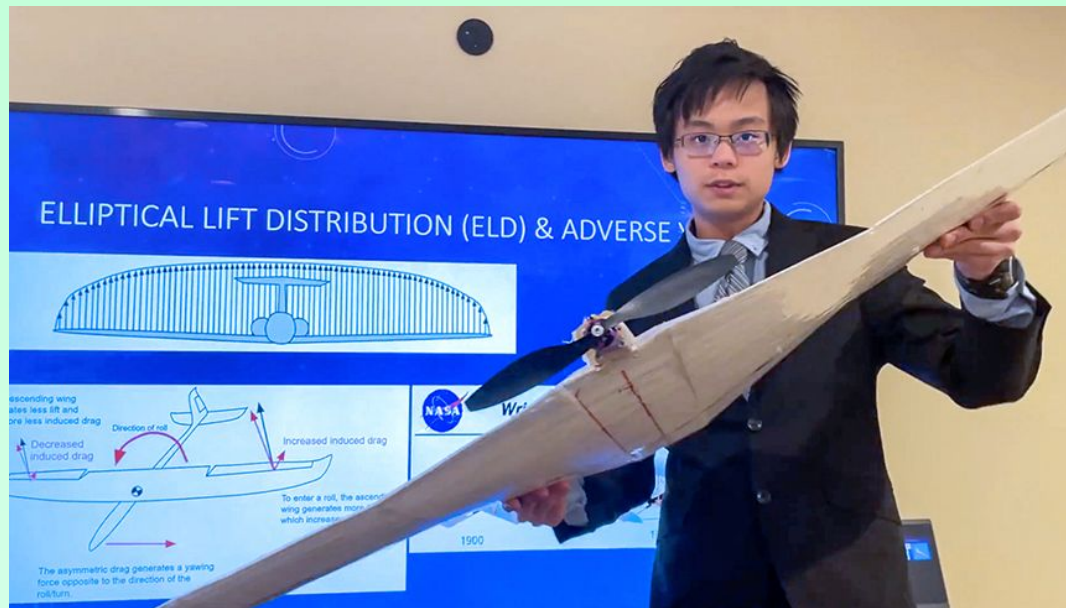
Student Online Registration

- Once a student completes his/her SRC-approved research, they may **REGISTER** the project for the LACSEF competition. **(links not live yet)**
- **Student online registration Dec 11, 2023** at:
<https://www.lascifair.org/student-project-registration/>
- **Student & Project Registration closes Feb 12, 2023**
- Site Science Fair Coordinators must submit **online student verification information** and ***ADHERE TO ALL DEADLINES.***



Student Online Registration

A **3 - 4 min video** about your project, 2-3 key **logbook** pages, **Digital Display** and a PDF version of your **research report** must be **uploaded** to the LACSEF student registration site for the judges:



Detailed instructions for submission will be on the project registration site in January, 2024



Have students fill out all pages of the “Scratch Sheet” and review the answers before entering online.

Los Angeles County Science Fair
SCRATCH SHEET- STUDENT ONLINE REGISTRATION

Student- Use this Scratch Sheet to prepare, in advance, all required information for online project registration. Use this Scratch Sheet as a step-by-step guide when registering online.

Registering is a 2 part process:

- 1st, you will enter YOUR information and then receive a password by email.
- 2nd, you will use that password to log in to the system and enter your PROJECT information.

If you do not complete the 2nd part, your registration for the Los Angeles County Science and Engineering Fair will be incomplete and your project will not be a part of the Fair.

Part 1- Registering Your Information

To register, go to www.app.lascifair.org

1. Move cursor/mouse to “Click here to register a new account”—CLICK
2. Select “Student” from the pull-down menu; click CONTINUE

REGISTER- STUDENT PROFILE INFORMATION: This section must be completed by a student submitting an “Individual Project” entry and ALL MEMBERS of a “Team Project.” ***ALL MEMBERS OF THE TEAM MUST COME FROM THE SAME SCHOOL.*** A Site Coordinator must oversee the work his or her students do- this is not possible if a student attends another school.

3. **School-** Select your school from the pull-down menu

(Be very careful and select the correct school name; **check with your School Site Science Fair Coordinator** as to the correct school name that is registered in the Science Fair database).

4. **Grade-** Type your grade level using the correct number (6, 7, 8, 9, 10, 11 or 12)
Select your grade level _____

5. **First Name-** (Use appropriate upper and lower case letters when typing)

6. **Last Name-** (Use appropriate upper and lower case letters when typing)

7. **Address-** Type your complete HOME ADDRESS; include Apt. #, if appropriate

8. **City-** (Use appropriate upper and lower case letters when typing)



Notification

- Site Science Fair Coordinators will be notified of **approval/rejection** of submitted Student Research Plans.
 - **Periodically check the website Dashboard** and follow-up with your students to ensure all verifications and revisions are completed.



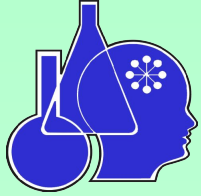
phillipmartin.info



Monitoring Your Dashboard

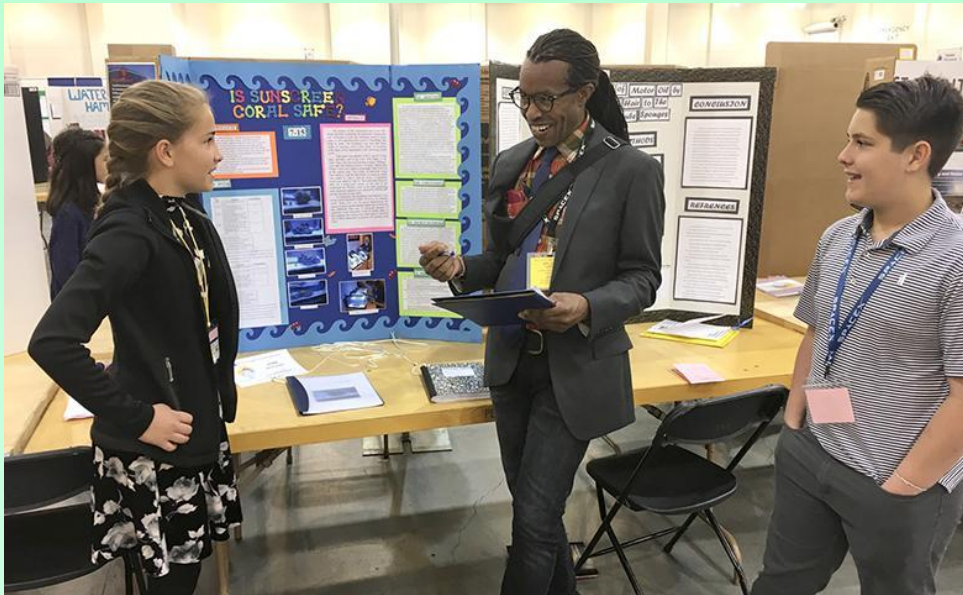
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- *This helps prevent projects from being **denied by LACSEF** because students did not fix their proposals.*





Interviews and Judging

Details on In-person Judging to be finalized by Jan, 2024



Procedure

- Inside: filter paper, 12 mg of powder, & 1 more filter paper
- 20 trials per solution: 10 with the cups cleaned; 10 with the cups uncleaned





Judging

- **Clothing:** Neat, preferably business style— it shows your respect for the judges.





Your Interview

- **Rehearse Your Presentation**
 - You will more composed if you are prepared.
- **Do your BEST!**
 - Be calm, confident and professional.
 - Know what you are talking about and you will do fine!!!





First Impressions

- **Introduce** yourself to each judge but in a pandemic, you **DO NOT** have to **shake hands**: nod to them and smile.
- **Courtesy**: If able, **stand** when judges come to your exhibit and remain standing until they leave.





What Judges Expect from Students

- **Enthusiasm!** An interview can be fun!
- **Pride** in your projects and accomplishments
- Give **as much information** as possible, ***BUT...***
 - ***Be able to explain your projects clearly and concisely***
- To be able answer **appropriate to level and age**





The Judges Will Want To Know:

- **How** was your project topic selected?
- Did you **receive help** and if so, how much?
- What has been **previously known** about the project's general subject area?
- What would the you do **if there were additional time** to spend on the project?
- **What have you learned** through the investigation?
- If this project was continued, what would be **next step(s)**?





Judging Tips

- **Courtesy**: the judges will tell you when they are ready for you to begin. During your presentation, they may wish to see 3D Models or equipment you used.
- **Be Positive**
 - Be calm, confident and professional.
 - You've done the *very best* you could!



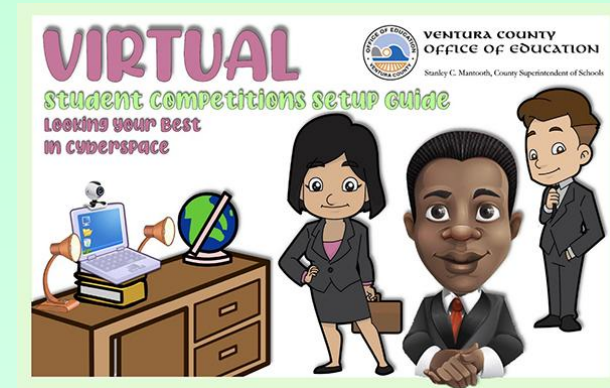
Download "[Interview Tips & Tools](#)" doc on Padlet

Attending Virtual Judging

Some **Special Awards** MAY require a second interview by the Award sponsor, by Zoom, **the day after in-person judging.**

**** Check out the **“Set up Guide”** by Ventura CSF!

- Have a **strong bandwidth** internet connection
- Have the **proper Zoom links** ready for each portion of the fair
 - Know how to use **chat, mute** microphones, turn on **video** camera
- Have **snacks** and **drinks** ready!
- If possible, sit in a **well-lit area**, with front lighting



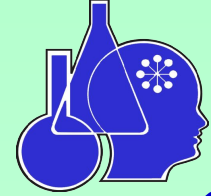


Exhibit Hall Open to the Public

Student projects can be viewed after judging

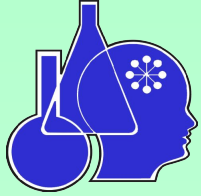




Project Removal

- **Take down projects promptly** when judging and/or Open House are finished.
- Students/Site Coordinators will be notified when take-down will begin.
- **All projects must** be removed by **4:00 pm**
- **No storage space:** uncollected projects go in the **trash**



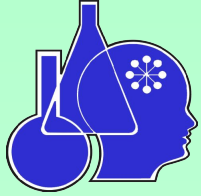


Awards (Virtual 2024)

ALL students should plan to be present!

- Students compete for **first, second, third place** and **honorable mention medals**
- **Special awards** and scholarships provided by the business community.
- **First, second** and some **third place** winners **MAY** qualify to compete in the ***California State Science Fair***.
- Decision of the judges is **FINAL**



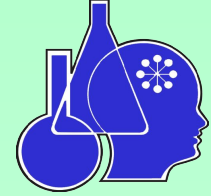


International Science & Engineering Fair

- Top 2-7 student projects in the **Senior Division** may be selected *for* *international* competition!



Courtesy of the Intel ISEF

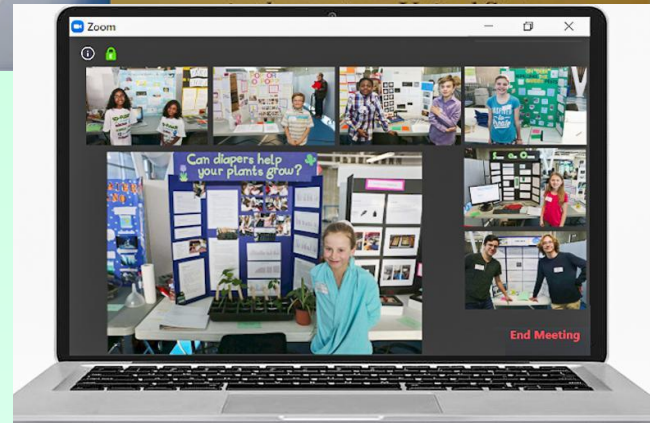


Virtual Awards Ceremony

2024 Virtual Ceremony will be Sunday, March 24

Details to be announced in January, 2024:

Check the website and Padlet frequently!

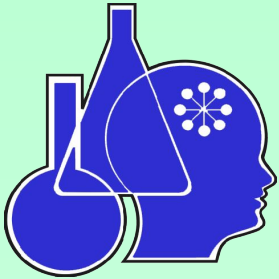


Designed & Photographed by

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Executive Board Member, LACSEF



for the
**Los Angeles County Science &
Engineering Fair**

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