

2025 ACEL SCIENCE FAIR GUIDE

Note: These ACEL Science Fair guidelines have been adapted from guidelines for the Louisiana Science and Engineering Fair hosted by LSU. The LSEF is an affiliated fair of the Regeneration International Science and Engineering Fair hosted by the Society for Science. The LSEF and RISEF are not affiliated with ACEL.

In this document, you will find the following information:

- 1. Preliminary Fair Schedule**
- 2. Divisions**
- 3. Paperwork Requirements**
- 4. Check-In and Setup Instructions**
- 5. Day of Fair Instructions**
- 6. Display & Safety Regulations**
- 7. Judging Criteria**

After registration is closed for this event, a campus and gymnasium map will be emailed to you along with a finalized fair schedule.

The 2025 ACEL Science and Engineering Fair will take place on the Mt. Olive Christian School Campus in the Eagle Gym.

1. Preliminary Fair Schedule

Saturday, February 1

- 9-10 AM: Project Set Up & Student Check In
- 10:15 AM: Students at Projects
- 10:15 – 12:30 AM: Judging
- 12:30 AM – 1:30 PM: Lunch
- 1:30 – 2:00 PM: Public Display
- 2:00 – 2:30 PM: Display Removal
- 2:30 PM – 3 PM: Awards Ceremony

2. Participants and Divisions

Every student who participates in the ACEL Science Fair must be

- enrolled in an ACEL organization,
- be in the 6th-12th grades,
- be 11-19 years of age,
- be academically eligible per ACEL guidelines (2.5 GPA)

Divisions are as follows:

- middle school (6th-8th grades)
- high school (9th-12th grades)
- There are no category divisions at this time. If the fair grows, we may introduce categories in biology, chemistry, engineering, etc.

3. Paperwork Requirements

- Display and Safety Checklist – printed and filled out before attending
- Approval Card – will receive at check-in. This is to be filled out only by the Fair Inspector.
- Official Abstract Form – downloaded and filled out by hand or typed up prior to fair date. Please print this and bring it with you.
- Research Plan – formatted and printed by student

4. Check-In & Setup Instructions

Check-In

1. **Find your project number** on the posted list at the check-in table.
2. **Set up project board.** You will be directed to your project location for setup. You will find a card with your name and project number on the table.

Project Setup

1. **Set your project up on the assigned space.** Judges should be able to see your project number.
 - *Max project size: W 48'' x D 30'' x H *108'' (Height includes table, so board/project cannot exceed 72'')*
2. **Wait for a fair inspector** to review your project and stamp your approval card.
3. Before leaving make sure the following are on your assigned space:
 - a. Card marked **PROJECT APPROVED**
 - b. **OFFICIAL ABSTRACT** is clearly visible

5. Day of Fair Instructions

Dress Code – Recommended dress is Business Casual. Collared shirts and slacks for men. Blouses, dresses, and/or slacks for ladies.

Parking and Drop Off – Students and projects may be dropped off at the gym entrance in the unloading zone before parking. Parking will be in front of the gym and in the grass in front of the main school building.

What to Bring – Bring a snack, water bottle, reading, and homework to do while waiting for a project to be judged. Students must stay within the boundaries of their project booth while waiting to be judged. Phones and handheld gaming devices are allowed without sound.

Be at your project by 10:15 AM – You must be at your assigned space for the entire judging round from 10:15-12:30 AM except for bathroom breaks. Failure to be present may result in a

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judge entering a score of 0. If you need to take a bathroom break, you may use the locker room restrooms.

Judging. Students will be judged over the course of 2 hours and 15 minutes by 2-4 judges. Students should have a 3–5-minute explanation of their project prepared for judging. Each judge will then ask follow-up questions based on the student’s project. Students should remain professional during the interview and answer all judge questions. Once the last judges had reviewed a row of projects, those students will be dismissed to lunch, but no students will be dismissed to lunch prior to 11:15 am.

Lunch – 11:30 AM-1 PM Once the last judges have reviewed a row of projects, those students will be dismissed to lunch. Students need to bring all personal belongings with them once dismissed. Lunch and snacks will be available in the concession stand of the gym, and menus will be made available for local restaurants. **Please bring money as lunch is NOT provided by the school or ACEL.** Sponsors and parents, please have a plan in place for gathering your students once dismissed.

Public Display – Project viewing is open to the public from 1:30 PM – 2:00 PM. Students will be able to walk around the room as well during this time.

Project Removal – Students are to remove project display boards from the gymnasium from 2:00 – 2:30 PM in preparation for the Award Ceremony.

Awards Ceremony – The Awards Ceremony will be held in the auditorium roughly from 2:30 – 3 PM. Students are encouraged to sit with their school.

6. DISPLAY AND SAFETY CHECKLIST

- Maximum project size: W 48’’ x D 30’’ x H *108’’ (*Height must include table height, so board/project sitting on table cannot exceed 72’’*)

Items required to be displayed on project board or in front of project:

- Official Abstract
- Signed project set-up approval card (received on-site at the Fair; will be taped to table)
- Photograph image, graph and data credits must be displayed as “Images by Student”

All forms are required to be at the project but not displayed, including, but not limited to:

- Research Plan
- Research paper and project data book, if applicable
- Human Participants Form and Human Consent Forms for each participant when applicable.
 - see <https://www.societyforscience.org/isef/international-rules/human-participants/>

Items NOT allowed at the display:

- Living organisms, including plants
- Soil, sand, rock and/or waste samples even if permanently encased in a slab of plastic

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- Taxidermy specimens or parts
- Preserved vertebrate or invertebrate animals
- Human or animal food, parts, or bodily fluid
- Plant materials (living, dead, or preserved) that are in their raw, unprocessed, or non-manufactured state (Exception: manufactured construction materials used in building the project or display)
- All chemicals including water (Exceptions: water integral to an enclosed, sealed apparatus.)
- All hazardous substances or devices [for example, poisons, drugs, firearms, weapons, ammunition, reloading devices, and lasers]
- Dry ice or other sublimating solids
- Sharp items (for example, syringes, needles, pipettes, knives)
- Flames or highly flammable materials
- Batteries with open-top cells
- Awards, medals, business cards, flags, logos, CD's, DVDs, flash drives, brochures, booklets, nor endorsements, and/or acknowledgments (graphic or written) unless the item(s) are an integral part of the project
- Photographs or other visual presentations depicting vertebrate animals in surgical techniques, dissections, necropsies, or other lab procedures
- Postal addresses, world wide web and email addresses, telephone and fax numbers of students
- Active Internet or e-mail connections as part of displaying or operating the project
- Glass or glass objects unless deemed by the Display and Safety Committee to be an integral and necessary part of the project (Exception: glass that is an integral part of a commercial product such as a computer screen)
- Any apparatus deemed unsafe by the fair inspector
 - (for example, large vacuum tubes or dangerous ray-generating devices, empty tanks that previously contained combustible liquids or gases, pressurized tanks, etc.)

Items allowed BUT with restrictions:

- Any photograph/visual image/chart/table and/or graph if:
 - It is not deemed offensive or inappropriate by the Project Inspector or ACEL Arts and Academics Commissioner. This includes, but is not limited to, visually offensive photographs or visual depictions of invertebrate or vertebrate animals or humans. The decision by either of the authorities mentioned above is final.
 - It has a credit line "Images by Student"
 - It is from the Internet, magazines, newspapers, journals, etc., and credit lines are attached.
 - It is a photograph or visual depiction of the student.
 - It is a photograph or visual depiction for which signed consent forms are at the project or in the booth.
- Any apparatus with unshielded belts, pulleys, chains, or moving parts with tension or pinch points if for display only and not operated.

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- Any demonstration for judges or the public must be performed within the maximum size of the project permitted, an area 30”(Depth) by 48”(Width) by 72” (Height of table and board not to exceed 108”)
- Any apparatus producing temperatures that will cause physical burns if adequately insulated
- The only items that may be displayed on the front of the provided tables are the approval card and official abstract.

Other requirements:

- Students must be present at their projects for the Display and Safety inspection. The inspection is a process that takes place between the student and inspector; therefore, no other persons should be present representing the student except for an interpreter if necessary.
- Returning items that have been removed through a violation and/or adding items that are not permitted after final clearance by the Project Inspector is prohibited.
- The Project Inspector, Arts and Academics Commissioner, and Science Fair Adjudicators reserve the right to remove any project for safety reasons or to protect the integrity of the fair and its rules and regulations.
- **A project data book and research paper are not required but are highly recommended.**
- **No school affiliation or grade level to be displayed on your board.**
- **All projects must have a board displayed. Computer only presentations are not allowed.**

Regulations Regarding the Use of Electricity and Lasers

Electrical Regulations:

Students will be able to use their battery-powered laptops and other battery-powered equipment as long as the item can be used safely. AC electricity in the gymnasium will be extremely limited.

1. Students requiring electrical circuits must provide their own extension cords.
2. The maximum allowed for projects is one electrical item to be plugged in.
3. All electrical connectors, wiring, switches, metal parts, extension cords, fuses, etc. must have adequate insulation, and over-current safety devices (such as fuses) and must be inaccessible to anyone other than the student. Exposed electrical equipment or metal that possibly may be energized must be shielded with a non-conducting material or with a grounded metal box to prevent accidental contact.
4. Wiring not part of a commercially available UL-listed appliance or piece of equipment must have a clearly visible fuse or circuit breaker on the supply side of the power source and prior to any project equipment.
5. There must be an accessible, clearly visible on/off switch or other means of disconnect from the power source.

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- Any lighting that generates considerable and excessive amounts of heat (high-intensity lamps, halogen lights, etc.) must be turned off or unplugged when the student is not present.

Class II lasers if:

- The output energy is <1 mW and is operated only by the student
- Operated only during the Project Inspection and during judging
- Labeled with a sign reading “Laser Radiation: Do Not Look into Beam”
- Enclosed in protective housing that prevents physical and visual access to beam
- Disconnected when not operating

Note: Class II lasers are found in laser pointers and in aiming and range-finding devices. They pose a risk if the beam is directly viewed over a long period of time.

- Class III and IV lasers if for display only and not operated (See the description of Class III and Class IV lasers in the Radiation section of the Hazardous Chemicals, Activities, or Devices.)

7. Judging Criteria

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| Research Question | 15% | <ul style="list-style-type: none">➤ Clear and focused purpose➤ Testable using scientific methods |
| Design & Methodology | 25% | <ul style="list-style-type: none">➤ Well-designed plan and data collection methods➤ Variables and controls defined, appropriate and complete |
| Execution: Data, Analysis, Interpretation | 25% | <ul style="list-style-type: none">➤ Sufficient data collected to support interpretation, analyses, and conclusions |
| Presentation: Poster | 10% | <ul style="list-style-type: none">➤ Logical organization of material➤ Clarity of graphics and legends➤ Supporting documentation displayed |
| Presentation: Interview | 25% | <ul style="list-style-type: none">➤ Clear, concise, thoughtful responses to questions➤ Understanding interpretation and limitations of results and conclusions |

SCORING

| 0 | 1-2 | 3-4 | 5-6 | 7-8 | 9 |
|------------|-----------------|------------|-------------------|---------------------|-------------|
| Incomplete | Atypically Poor | Needs Work | Minimal but Solid | Substantial & Solid | Exceptional |

Students will need to have a 3-5 minute speech prepared to deliver to each judge at the beginning of judging. Judges then can ask follow-up questions regarding the students' research.

Ethics Statement:

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Scientific fraud and misconduct are not condoned at any level of research or competition. This includes plagiarism, forgery, use of presentation of other researcher's work as one's own, and fabrication of data. Fraudulent projects will fail to qualify for competition, and the ACEL reserves the right to revoke recognition of a project subsequently found to have been fraudulent.