



EDUCATOR AND FAMILY GUIDE

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MORE INFORMATION/SUPPORT:

Science Fair website: bit.ly/SOCORegionalFair



Need help? Fill out this form: bit.ly/SOCOScienceFairsHelp



Logistics

What: 24th Annual Southern Colorado Regional STEM Fair

Where: Occhiato Ballroom, CSU-Pueblo

When: Interviews are Tuesday, March 3rd and the Open House & Awards Ceremony is Thursday, March 5th, 2026. Registration and paperwork due January 28th, 2026.

Who: Students in grades 6-12 from Pueblo, Fremont and Custer counties. Junior division: 6-8, Senior division: 9-12 grade. Project teams can be up to 1-3 people of mixed grades within each division.

Fair Overview

- 6-12 graders from Pueblo, Custer and Fremont counties are invited to compete in the Regional Fair.
- Middle schools can send up to 20 projects. High schools can send unlimited projects.
- The Southern Colorado Regional Fair is aligned with the Colorado State Science and Engineering Fair which is held at CSU-Fort Collins every April.
- All participants must have complete paperwork and adhere to CSEF aligned rules of ethics.
- Students gain interview experience with expert judges. Working professionals from around Southern Colorado travel to Pueblo to provide interviews and make connections.
- The Regional event is run in the same space as the District 60 Elementary STEM Fair for D60 students grades 3-5.
- Categories for the 2025-2026 Fair are:
 - Animal Sciences
 - Behavioral & Social Sciences
 - Biomedical & Health Sciences
 - Chemistry
 - Earth & Environmental Sciences
 - Energy
 - Engineering
 - Environmental Engineering
 - Mathematics & Computer Sciences
 - Micro & Molecular Biology
 - Physics & Astronomy
 - Plant Sciences

[Link to CSEF category descriptions](#)

How to get started

1. [Present Science Fair opportunity](#) to students in September or October.
2. Invite students to attend Science Fair Info sessions in October
 - a. These could be held afterschool, during a parent night, or during an advisory time.
 - b. In person kick off event is Wednesday, October 8th from 5:00-6:30pm at the D60 Administration Building (315 W 11th St, Pueblo, CO, 81003)
 - c. Contact mary.jose@pueblod60.org for building specific support.
3. Figure out the best support structure for your students
 - a. Is this best as an afterschool club?
 - b. Do you have time in your class context to embed work time for the science fair?
 - c. Do you have students who can work at home with your guidance?
4. Present students with [Student Guidebook](#) and have them brainstorm research questions or topics.
 - a. Any projects involving the following “sensitive subjects” need to be reviewed by the Regional Scientific Review Committee (SRC) prior to experimentation. Start by reading the ISEF rules to understand how to design your project to meet the requirements.
 - HUMAN PARTICIPANTS
 - [ISEF rules](#)
 - [Risk Assessment Guide](#)
 - Additional paperwork: [Human Participants Form \(4\)](#), possibly [Human Informed Consent Form](#) and/or [Qualified Scientist Form \(2\)](#)
 - VERTEBRATE ANIMALS
 - [ISEF rules](#)
 - Additional paperwork: [Vertebrate Form \(5A\)](#), and/or [Vertebrate Form \(5B\)](#), and/or [Qualified Scientist Form \(2\)](#)
 - POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS
 - [ISEF rules](#)
 - Additional paperwork: [Potentially Hazardous Biological Agents Form \(6A\)](#), [Human and Vertebrate Animal Tissue Form \(6B\)](#), and/or [Qualified Scientist Form \(2\)](#)
 - HAZARDOUS CHEMICALS, ACTIVITIES, AND DEVICES
 - [ISEF rules](#)
 - Additional paperwork: possibly [Qualified Scientist Form \(2\)](#)

SRC reviews will occur once a month and all documents are due on the 1st (October 1st, November 1st, and December 1st). *See the resource section of this guide for more information.*

5. Students register for the Regional science fair on MySciFair.com and enter your email so you are connected as the mentor teacher. We recommend students register as soon as they have started to design their project and write their detailed research plan so their progress can be monitored and properly tracked by SRC/IRB when needed.
 - a. [Creating a Student Account](#)

- b. [Primary Project Selection](#)
- 6. You will also register on MySciFair.com and will accept student invitations so you are able to view their paperwork progress.
 - a. [Creating a Teacher Account](#)
 - b. [Seeing Student Projects](#)
 - c. [Accepting and Denying Student Invitations](#)
- 7. Once projects have had an initial review through the website, students will get approval and can begin their projects.
 - a. Ideally, STEM Fair feeder schools host their own science fair in November or December.
 - b. Individual teachers may also support students.
 - c. Middle schools can nominate up to 20 projects and high schools can send an unlimited number to register for the Southern Colorado Regional Science & Engineering Fair.
- 8. Registration and paperwork is due Wednesday, January, 28th, 2026.
 - a. Students must complete all paperwork requirements and revisions in the MySciFair website.

Online Form Guidance

Sponsor teachers will have access to the MySciFair landing page where they can track the progress of students on paperwork. To support correct documentation, students are encouraged to register early. The website allows for 100% electronic submission of paperwork, including all signatures.

Documents - Required for ALL Participants in the Southern Colorado Regional Fair

[Research Plan](#)

This should be typed and completed with the Student Checklist Form (1A). It must be a detailed plan of the experimental part of the project. There must be a clear: Rationale, research question, hypothesis, engineering goals, list of materials, detailed procedures, risk and safety considerations, and a bibliography with at least one reference.

Any project dealing with Human Subjects, Vertebrate Animals and/or Potentially Hazardous Biological Agents (i.e., microorganisms, bacteria, etc.) MUST be reviewed by an Institutional Review Board and/or Scientific Review Committee prior to any experimentation beginning.

[Student Checklist \(Form 1A\)](#)

This form should be completed at the same time of the Research Plan. On this form, students should outline details about when and where the experimentation will take place. **The start date here is important and all other review signatures should be prior to this date.**

For additional help in completing Form 1A, watch the [Form 1A Help Video](#).

[Risk Assessment Form \(Form 3\)](#)

This form outlines the potential risks and hazards that might be associated with the project and the Designated Supervisor that will directly oversee the project. **For most projects, those that do not use the “sensitive subjects,” Form 3 will say N/A for many sections.**

This form should be completed with the Research Plan and is a review of the risks that MIGHT be associated with the project (see the CSEF rules & guidelines for more information on potential risks and hazards a student might encounter in their research) and must be completed PRIOR to experimentation. Teachers should use this form to decide if additional paperwork and SRC reviews are needed.

****NOTE**** For projects that have higher risk levels, the Designated Supervisor MUST explain how they are qualified to supervise the use of whatever hazards are listed in the Risk Assessment – being an adult in the household is not an automatic qualification.

For more information on working with Human Subjects, Vertebrate Animals, Potentially Hazardous Biological Agents and/or Tissues, or Hazardous Chemicals, Devices or Activities, please refer to the [Colorado Science Science & Engineering Fair website](#) and the [International Science and Engineering Fair handbook](#).

[Checklist for Adult Sponsor \(Form 1\)](#)

This form should be completed by Student Researcher and Adult Sponsor after reviewing the Research Plan, Student Checklist (1A), and Risk Assessment Form (3). It is a final review of science fair ethics guidelines and paperwork requirements. The Adult Sponsor should sign and date this form PRIOR to the start of experimentation listed on 1A.

For additional help in completing Form 1, watch the [Form 1 Help Video](#).

[Approval Form \(Form 1B\)](#)

This form should be completed once the Student Checklist, Research Plan, Checklist for Adult Sponsor and any other needed forms for the type of project are all completed. **Sections 1 & 2a (if applicable) must be signed prior to experimentation.** Sections 3 & 2b (if applicable) will be signed just prior to a student competing in a regional science fair.

For additional help in completing Form 1B, watch the [Form 1B Help Video](#).

Digital Project Presentation Guidelines

The SOCO Regional STEM Fair now requires students to submit digital project materials as part of their registration process. This allows judges more time and freedom to review each student’s work before

the day of judging interviews. Special Awards Judges may ONLY view the virtual projects and Grand Awards Judges will benefit from seeing the projects before interview day. You may have this presentation as part of a school or District fair or it can be completed just for the Regional Fair.

Please use the following templates. They may be altered but cannot be more than 10 pages total. Students will submit a pdf version of their presentation in “additional materials” section of MySciFair.

Science Project Presentations:

[Powerpoint Template](#)

[Google Slides Template](#)

Engineering Project Presentations:

[Powerpoint Template](#)

[Google Slides Template](#)

Mathematics/Computer Science Project Presentations:

[Powerpoint Template](#)

[Google Slides Template](#)

Physical Project Presentation Guidelines

Along with a digital presentation, students may also have a physical project board to display at the Regional Fair. All presentations must follow the [display & safety regulations](#) outlined by the Colorado State Science & Engineering Fair. Before judging, all projects will undergo an inspection from the Display & Safety team to check for any violations. Failure to follow these display & safety guidelines may result in disqualification..

The following are a few items that are typical problems found during the Display & Safety Inspections:

- ALL items to present to the judges MUST fit within the allotted volume of 9' high, 4' wide and 30" deep. NOTHING can be set in front of the table as part of the project display.
- ALL photographs, images, graphics, data tables, graphs, etc. must be credited (even if everything was done by the student). Items from the internet must have the specific URL for that image (do not credit Google Images).
- No glass or glass objects are allowed at the display (this includes equipment used during experimentation).
- No live or dried plant material is allowed at the display.
- No food is allowed as part of the display.
- No liquids (other than water for consumption by the student) are allowed as part of the display.
- No laser pointers are allowed to be used during judging.
- No sharp objects may be part of the display.
- Acknowledgements of any kind must be in an identified area of the project board.

“Sensitive subject” additional information/exceptions

Type of Project	Allowed for Fast Track	Allowed with Restrictions	Not Allowed for Fast Track
Human Subjects	Passive Observation (with no manipulation of the environment); studying statistics containing no identifiable information; using myself to evaluate a product or invention that I developed		Ingesting anything, exercise, surveys, tests, fingerprinting, heart rates
Involving Hazardous Chemicals, Activities and Devices*			Firearms, explosives, Class III & IV lasers, DEA controlled substances, prescription drugs, radiation, strong acids or bases, liquid nitrogen, pressurized gas
Involving Vertebrate Animals*	Investigations involving observation of zoo animals, wild animals or pets	Behavioral studies of pets	Drastic changes in home environment; alteration of diet; negative reinforcement
Involving Human or Animal Tissues	Hair, hooves, nails and feathers; meat, eggs, meat by-products or pasteurized milk purchased from a store; commercially prepared fixed tissue slides		Anything else
Microbial Cultures*	Yogurt cultures; Baker's and Brewer's yeast purchased from a store; nitrogen-fixing, oil-eating or algae-eating bacteria in their natural environment; mold growth on food items stopped at first sign of mold; edible mushrooms and slime mold.	Unknowns from the environment, BSL-1 microbes. Must be done at school or in a lab.	BSL-2 or higher microbes. Must be done in a lab.

*Safety Assessment must be conducted and included in procedures

Human Subjects

Fast Track projects can include observational studies of legal public behavior of children and/or adults where there is NO interaction between the researcher (or someone acting on behalf of the researcher)

and their subjects. For example, it is acceptable for a student to observe how many children play on the monkey bars vs. the slide at the park but it is not allowed if a student observes how many children play on the monkey bars vs. the slide at the park and then asks the children why they prefer one over the other. A researcher may not manipulate an environment to observe how people respond to the manipulation. It is also unacceptable for a teacher to administer a survey or a test to their class on behalf of the researcher. It is acceptable to use data from the internet that is publicly available for analysis.

Human Subjects projects not allowed under Fast Track Rules

- Eating, drinking, or tasting anything, including food, candy or water
- Exercise studies
- Surveys or tests
- Consumer products testing involving human subjects
- Taking fingerprints
- Measuring heart rates

Hazardous Chemicals, Activities and Devices

Projects involving the use of hazardous chemicals and devices and involvement in hazardous activities require direct supervision by a parent or teacher. **Hazardous chemicals** and compounds include acids, bases, and alcohol. This includes household items like bleach, over-the-counter medicines, fertilizers and manure. **Hazardous activities** are those that involve a level of risk above and beyond that encountered in the student's everyday life. When in doubt, email mary.jose@pueblod60.org. **Hazardous devices** include laboratory equipment and power tools that require a moderate to high level of expertise to ensure safe usage. Solid rocket engines when unaltered and used according to manufacturer's directions are allowed as long as safety assessment includes adult supervision.

Not allowed under Fast Track Rules

- Firearms, explosives, fireworks, fire and fire extinguishers
- Class III and IV lasers
- DEA controlled substances, Prescription drugs and Tobacco
- Radiation
- Chemicals with a pH of 1 or 14 (very strong acid or base)
- Liquid nitrogen
- Pressurized gases

Vertebrate Animals

Two types of Vertebrate animal projects are allowed using the Fast Track forms.

Observational studies of behavior of animals in their habitat, including the home for pets and the zoo and nature for wild animals, where there is NO intervention or treatment. **OK:** a student observes goldfish behavior during feeding time vs. non-feeding times on a normal feeding schedule. **Not allowed:** a student observes how the goldfish react to living in a dark closet.

Behavioral projects for pets involving doing things that pets experience in everyday life such as a new food dish, supplemental treats (following label recommendations), a new toy. **OK:** a student observes which colored dish a dog prefers to drink from. **Not allowed:** adding food coloring to water to see which color the dog prefers.

Pets are defined as animals not acquired specifically for a research project. Using pets owned by other people is allowed, as long as the owner of the animal is present.

Advance Review Checklist for Vertebrate Animals

If any of the following statements are true, Advance Review forms and rules must be used.

I will buy an animal to experiment on.

I will feed the animal food, vitamins or supplements not labeled for it.

This activity is not normally performed by this type of animal. (for example: fish swim, cats don't)

This activity will cause the animal stress or fear.

Safety Assessment for Vertebrate Animals

The following safety assessment questions need to be included in the project procedures.

What type and how many animals will be used?

Who will take care of the animals?

What will happen to the animals after the experiment?

Human and Vertebrate Animal Tissue

The following human and animal tissues are allowed using the Fast Track form.

Hair, hooves, nails and feathers

Sterilized teeth

Meat, meat by-products, pasteurized milk, or eggs obtained from a food store and not consumed

Commercially prepared fixed tissue slides

Microbial Cultures

The following microbes are approved without special precautions, but tasting the product as part of the experiment is not allowed:

Baker's or Brewer's yeast purchased from a store

Studies involving Lactobacillus, nitrogen-fixing, oil-eating bacteria and algae-eating bacteria introduced into their natural environment. These are not exempt if cultured in a petri dish environment, ISEF rules must be used.

Studies of mold growth on food items if the experiment is **stopped at the first** sign of mold.

Studies of mushrooms and slime mold.

The following microbe projects can only be conducted at school or a research lab following Bio Safety Level 1 protocols as stated for unknown specimens:

Decomposition or **mold** growth experiments either on nonfood items or those that continue beyond the first sign of mold on food

Unknown specimens obtained from the environment, not a living creature

Regarding Unknown Specimens

Studies involving unknown microorganisms present a challenge because the presence, concentration and pathogenicity of possible agents are unknown. In science fair projects these studies typically involve the collection and culturing of microorganisms from the environment like soil, household surfaces, water, etc.

Research with unknown microorganisms can be treated as a BSL-1 study under the following:

The organism **is cultured** in a plastic Petri dish or other standard non-breakable container **and sealed**.

The experiment involves only procedures in which the Petri dish remains sealed throughout the experiment, for example counting the presence of organisms or colonies. The sealed Petri dish is disposed of in the appropriate manner by autoclaving or bleach solution by the teacher or Designated Supervisor.

All BSL-1 containment procedures are followed.

Regarding Bio Safety Level 1 Microbes

All BSL-1 containment procedures must be followed. BSL-1 containment is normally found in water-testing laboratories, in high schools, and in colleges teaching introductory microbiology classes. Work is done on an open bench or in a fume hood. Standard microbiological practices are used when working in the laboratory. Decontamination can be achieved by treating with chemical disinfectants or by steam autoclaving. Lab coats are required and gloves recommended. The laboratory work is supervised by an individual with general training in microbiology or a related science.

Safety Assessment for Microbes

The following safety assessment questions need to be included in the project procedures for every microbe experiment:

What types of microbes are involved?

What risks are involved?

What safety precautions will be used to reduce risk?

What disposal methods will be used?

Where will the research be conducted?

Not allowed under Fast Track Rules

Opening a culture for identification, sub-culturing or isolation

Swabbing in an area with a high likelihood of fecal contamination i.e. bathrooms and litter boxes

Swabbing a person

Review Board Guidance

In Colorado, there are three to five levels of review that a Student Researcher's project may need to pass through for competition. If any of the review groups feel that there was a serious breach of ethical or safety protocols, they can deem the project failed to qualify and the student(s) cannot compete.

Projects using "sensitive subject" required Advanced Review paperwork and pre-approval from either [the Scientific Review Committee \(SRC\) or Institutional Review Board \(IRB\)](#). These groups could be convened at the school or District level. If there is no available SRC/IRB for a local fair or individual project in need, then the Regional SRC can be utilized. For the 2024-2025 Southern Colorado Regional Fair there are SRC/IRB reviews each month with a due date of the first of each month - October 1st, November 1st, and December 1st. The review can take up to 2 weeks. Mary Jose will communicate your review results and any additional information needed. Please contact mary.jose@pueblod60.org for more information.

This link can help you decide if you need SRC/IRB review and the information below can help guide setting up your school or District based review groups. SRC/IRBs may be convened virtually or in person, and work may be completed asynchronously or together as a group.

Scientific Review Committee (SRC)

An SRC must consist of a minimum of three persons. Additional members are recommended to avoid conflict of interest. The SRC must include:

- biomedical scientist (Ph.D., M.D., D.V.M., D.D.S., or D.O.)
- science teacher
- at least one other member

Institutional Review Board (IRB)

An Institutional Review Board (IRB) is a committee that, according to federal law, must evaluate the potential physical or psychological risk of research involving human subjects. This must happen before experimentation begins. This includes any surveys or questionnaires to be used in a project. The IRB must consist of a minimum of three members.

The IRB should include: a) science teacher b) school administrator and c) medical professional or counselor. An IRB should be established at the school level to deal with human research projects.

Notes:

- If the project is behavioral, a psychologist, psychiatrist, or individual with human behavioral training must serve on the IRB.
- For subjects under 18, student researchers must obtain written informed consent (Form 4) from all subjects and their parent/guardian when the IRB determines that more than minimal risk is involved.

Project Judging

Interview Process

As part of the Southern Colorado Regional Science and Engineering Fair, all projects will be matched with expert judges. These scientists and engineering professionals will interview students as part of the scoring process. Grand Awards Judges will recommend awards within categories. Special awards selected by community sponsors and administrative staff, will recognize projects that exhibit exceptional 21st century skills. Annual Special Awards vary by year.

Interview Tips

To do your best, make sure you know the details of your project. Come to the Judging event ready to present your work. We recommend you dress professionally and practice speaking about your project. Students may bring a water bottle.

Sample Interview Questions

Below is a sample of questions that judges often ask students during judging interviews. It is a good idea to practice answering the following questions before meeting the judges:

- Please describe your project.
- Why are you interested in this topic?
- Please explain the relevance of your project to society. Why is this information important to us?
- What are the most important things you have learned by doing your project?
- If you had more time, what things would you do to change or improve it?

Awards/State Qualification

Students with award-winning projects will be recognized during an Open House and Awards Ceremony on Thursday, March 5th, 2026. Qualifiers are not necessarily chosen by their categorical place (1st, 2nd, 3rd). Not all students grades 6-12 advance to State, but may still place 1, 2, 3, or honorable mention at Regionals.

Projects that are nominated for the Colorado State Science and Engineering Fair competition have just 5 days to register and upload paperwork. State competition qualifiers will receive an information packet after the Regional Fair Award Ceremony.