Show-Me SCIENCE COMPETITION

"Where Missouri's Brightest Young Minds Compete"

Policies and Forms
2026

Show-Me SCIENCE Steering Committee:

Director: Jill Ott (Jill@ScienceCoach.org)

Liaison with St. Charles Community College: Dr. Mara Voracheck-Warren (MVorachek-Warren@stchas.edu)

Judging Coordinator: Jennifer Hess (Jennifer@ScienceCoach.org)

SRC Chair: Brenda Kroft (Brenda.Kroft@gmail.com)

Fair Website: www.ShowMeSCIENCE.org

Welcome

Congratulations on qualifying for the **top-level science competition** in the state of **Missouri**! We are proud of you and pleased to welcome you to this next-level opportunity.

Eligibility

All students in grades 6-12 who reside in the state of Missouri are eligible to participate if they qualify from a regional fair. This includes public, private, homeschooled, and students who do not have access to a regional fair.

- All students should participate in a Regeneron International Science and Engineering Fair (ISEF) or Thermo Fisher Scientific Junior Innovator Challenge (JIC) affiliated regional fair in Missouri in order to qualify for Show-Me SCIENCE.
    - Missouri Tri-County Regional Science and Engineering Fair
    - Mastodon Art/Science Regional Fair
    - Southeast Missouri Regional Science Fair
    - Missouri Southern Regional Science Fair
    - Greater Kansas City Regional Science and Engineering Fair
    - Academy of Science - Greater St. Louis Science Fair
    - Ozarks Science and Engineering Fair
    - Central Methodist Eagles Science and Engineering Fair

- If you live in a Missouri county (Atchison, Nodaway, Worth, Harrison, Mercer, St. Clair, Grundy, Daviess, DeKalb, Gentry, Andrew, Holt, Buchanan, Clinton, Caldwell, Ray, Carroll) NOT covered by one of these fairs, please contact Jennifer Hess at Jennifer@ScienceCoach.org. Click this link to see what counties each fair covers.

General Participation Policies

- All projects competing at Show-Me SCIENCE must qualify at a regional Missouri fair. Students residing in a Missouri county NOT

covered by one of the regional fairs (see above) must contact Jennifer Hess at Jennifer@ScienceCoach.org.

- Each regional fair is eligible to promote and send a combined total of the 30 highest-scoring projects from their fair AND a total of 5 invention projects:
    - Grades 6-8, a minimum of 10, but no more than 15, of their top-scoring projects.
    - Grades 9-12, a minimum of 10, but no more than 20, of their top-scoring regular or honors projects.
    - Grades 6-12, a total of 5 projects categorized as inventions.
    - If a fair does not have a grade 6-8 division, then a total of 30 projects may be submitted from 9-12 (regular or honors).

- There is no fee associated with participating in the Show-Me SCIENCE Competition for any student.

- Competition categories each include an additional subcategory designation of "Invention" and will be as follows:
    a. Animal Science
    b. Behavioral Science
    c. Cellular and Molecular Biology
    d. Chemistry/Biochemistry
    e. Computer Science/Mathematics
    f. Engineering
    g. Environmental Sciences
    h. Medicine and Health Sciences
    i. Physics and Astronomy
    j. Plant Sciences

- Show-Me SCIENCE reserves the right to combine categories when a category does not have enough entries to provide for fair judging.

- Students who received a nomination to apply for the Thermo Fisher Scientific Junior Innovator Challenge (JIC) at their regional fair will NOT receive an additional nomination at Show-Me SCIENCE.

- Students who receive a bid for the Regeneron International Science and Engineering Fair (ISEF) from their regional fair can receive a bid from Show-Me SCIENCE. In this case, the affected regional fair can nominate their next highest scoring project to go to ISEF, and Show-Me SCIENCE will sponsor the student who receives the initial bid.

- Students may add additional data to their qualifying projects between their regional fair and Show-Me SCIENCE **ONLY** if that data is collected using exactly the same methods as were approved in the research plan that was submitted and approved by the project's regional fair.

- Show-Me SCIENCE uses MySciFair to manage registration and judging. All participants need an account in MySciFair.

- Regional fairs have 5 days from the time of announcing winners to promote projects that are proceeding to Show-Me SCIENCE in MySciFair. If a regional fair does not use MySciFair, accounts will need to be created by all promoted individuals, and all relevant paperwork uploaded.

- Show-Me SCIENCE follows Thermo Fisher Scientific Junior Innovator Challenge and Regeneron International Science and Engineering Fair rules.

- The Show-Me Science competition is a Thermo Fisher Scientific Junior Innovator Challenge affiliated fair. The top 10% of grade 6-8 projects will receive a packet that will allow them to submit their project for consideration to Thermo Fisher Scientific JIC. If that student has already received a nomination from their regional fair, another will not be awarded.

- The Show-Me SCIENCE Competition is an ISEF affiliated fair, therefore the top overall high school honors division projects will be sent, all expenses paid, to compete at the Regeneron International Science and Engineering Fair, according to the number of bids allotted to the state fair. They will be chaperoned by the Show-Me SCIENCE

director and one teacher for every two projects. Other adults are welcome to attend, but they must pay their own expenses.

- The Show-Me SCIENCE Competition is a Genius Olympiad affiliated fair (https://geniusolympiad.org/) and the top scoring environmentally based project in grades 8-12 will be sent to compete in the Genius Olympiad.

- The Show-Me SCIENCE Competition is an RTX Invention Convention National Competition affiliated fair, and the top scoring invention project in grades 6-12 will have registration fees paid to attend the Invention Convention.

- All student finalists at Show-Me SCIENCE will go through a minimum of three in-person judging interviews.

- Partner projects are permitted and may consist of no more than three students, all of whom **MUST** reside in Missouri.

- Bullying or harassment of any type is NOT tolerated at Show-Me SCIENCE. Students experiencing any type of bullying or harassment are asked to notify their division monitor immediately. Students found to be bullying or harassing another student will be excused from competition immediately.

- Academic dishonesty is NOT tolerated at Show-Me SCIENCE.
    a. All photographs/graphics (including data tables) must be properly cited on the poster individually, even if taken or created by the student, as per ISEF rules. Refer to Graphic and Credit Guidance for clarification.
    b. For guidance on the appropriate use of AI in a project, please refer to Generative AI Use (per ISEF).
    c. Posters may **NOT** include the abstract, name brands of any products, logos, or QR codes, as per ISEF rules.

- All projects must be removed from the venue after judging. Any projects remaining after completion of the fair will be disposed of.

- For more information on designing posters for competition, visit these links:

a. Tips for Presenting Project Posters/Boards
b. Science Fair Poster/Board Layout
c. Display and Safety Guidelines

Rules of Participation for Grades 6-8 Projects

1. Projects in grades 6-8 must have completed the appropriate safety paperwork for projects involving:

   a. Humans
   b. Bacteria/fungi
   c. Hazardous materials

   No projects involving these topics will be allowed to compete at Show-Me SCIENCE without the required safety approvals.
   The ONLY exception to these forms is if a grade 6-8 project qualifies from a regional fair that requires students in grades 6-8 to complete ISEF paperwork for their projects.

2. **Bacterial/fungi projects CANNOT be conducted at home. Students in grades 6-8 may ONLY use bacteria with a safety rating of BSL1.**

3. **Students in grades 6-8 are NOT allowed to do any projects involving non-human vertebrate animals (i.e. dogs, horses, chickens, cats, fish, hamsters, etc.) UNLESS it is a purely observational study. Examples of acceptable observations include:**

   a. **birds at the bird feeder**
   b. **fish in an aquarium**
   c. **wildlife in the yard or park**
   d. **dogs or cats playing with toys**

4. **Students in grades 6-8 are not allowed to do projects involving the following:**

   a. **explosives (including fireworks or explosive chemical reactions)**
   b. **guns**

c. **prescription medications**
d. **alcohol**
e. **tobacco products**

5. **Certain projects involving humans are not permitted for grades 6-8. These include, but are not limited to, projects involving:**

    a. **pain or risk of injury**
    b. **having participants take medications**
    c. **surveys involving drug use or sexual behaviors**

6. Display boards should be of a typical 36" x 48" inch tri-fold board that can stand on its own. A title header board is acceptable but not required.

7. Absolutely **NO** materials or devices should be displayed with the board **other than the log book**.

8. Students will receive feedback that is intended to give constructive suggestions for students to continue forward in their scientific endeavors, IF it is provided by the judges.

Rules of Participation for Grades 9-12 Projects: Regular Division

1. Students in grades 9-12 may participate in the Show-Me SCIENCE competition without being considered for an ISEF bid. This is the Regular Division.
2. Projects in grades 9-12, Regular Division must have completed the appropriate safety paperwork for projects involving:

    a. Humans
    b. Bacteria/fungi
    c. Hazardous materials

    No projects involving these topics will be allowed to compete at Show-Me SCIENCE without the required safety approvals. **The**

<u>ONLY exception to these forms is if a grade 9-12 Regular Division project qualifies from a regional fair that requires ALL students in grades 9-12 to complete ISEF paperwork for their projects.</u>

3. **Bacterial/fungi projects CANNOT be conducted at home. Students in grades 9-12, Regular Division may ONLY use bacteria with a safety rating of BSL1.**

4. **Students in grades 9-12, Regular Division are NOT allowed to do any projects involving non-human vertebrate animals (i.e. dogs, horses, chickens, cats, fish, hamsters, etc.) UNLESS it is a <u>purely observational study</u>. Examples of acceptable observations include:**

    a. **birds at the bird feeder**
    b. **fish in an aquarium**
    c. **wildlife in the yard or park**
    d. **dogs or cats playing with toys**

5. **Students in grades 9-12, Regular Division are not allowed to do projects involving the following:**

    a. **explosives (including fireworks or explosive chemical reactions)**
    b. **guns**
    c. **prescription medications**
    d. **alcohol**
    e. **tobacco products**

6. **Certain projects involving humans are not permitted for grades 9-12, Regular Division. These include, but are not limited to, projects involving:**

    a. **pain or risk of injury**
    b. **having participants take medications (even over the counter)**
    c. **surveys involving drug use or sexual behaviors**

7. Display boards should be of a typical 36” x 48” inch tri-fold board that can stand on its own. A title header board is acceptable but not required.

8. Absolutely **NO** materials or devices should be displayed with the board **other than the log book**.

9. Students will receive feedback that is intended to give constructive suggestions for students to continue forward in their scientific endeavors, IF it is provided by the judges.

Rules of Participation for Grades 9-12 Projects: Honors Division

1. ALL grade 9-12 projects must submit completed ISEF forms 1, 1A, 1B, and Form 3.

2. Projects involving humans (including surveys), vertebrate animals, potentially hazardous biological agents (bacteria, fungi, tissue, etc.), or hazardous chemicals/devices must submit the appropriate ISEF forms showing that pre-approval was obtained prior to regional competition.

3. According to ISEF rules, display boards may not exceed **30" (76cm) deep x 48" (122cm) wide x 95" (240cm) tall**. These boards may sit on an easel, a table, or the floor. If they are on an easel or table, that must be counted in the overall height of the project.

4. Students will receive feedback that is intended to give constructive suggestions for students to continue forward in their scientific endeavors, IF it is provided by the judges.

Ethics Statement

Student researchers, as well as adults who have a role in their projects, are expected to maintain the highest ethical standards. These include, but are not limited to:

- **Integrity**. Honesty, objectivity, and avoidance of conflicts of interest are expected during every phase of the research. The project should reflect independent research done by the student(s), and represent only one year's work. The project should reflect independent research done

by the student(s) and presented in their own words with proper citation, most particularly if artificial intelligence is used. The project may only represent one year of work and must not include fraudulent data, plagiarism or inappropriate use of AI in presenting work that is not their own.

- **Legality**. Compliance with all federal, state, and local laws and regulations is essential. In addition, projects conducted outside the U.S. must also adhere to the laws of the country and jurisdiction in which the project was performed. All projects must be approved by a Scientific Review Committee (SRC), and when necessary must also be approved by an Institutional Review Board (IRB), Institutional Animal Care and Use Committee (IACUC), and/or Institutional Biosafety Committee (IBC).
- **Respect for Confidentiality and Intellectual Property**. Confidential communications, as well as patents, copyrights, and other forms of intellectual property must be honored. Unpublished data, methods, or results may not be used without permission, and credit must be given to all contributions to research.
- **Stewardship of the Environment**. It is the responsibility of the researcher and the adults involved to protect the environment from harm. Introduction or disposal of non-native, genetically-altered, and/or invasive species, (e.g. insects, plants, invertebrates, vertebrates), pathogens, toxic chemicals, or foreign substances into the environment is prohibited. It is recommended that students reference their local, state, or national laws and regulations and quarantine lists, including if considering using "catch and release" fishing procedures.
- **Animal Care**. Proper care and respect must be given to vertebrate animals. The guiding principles for the use of animals in research includes the following "Four R's": Replace, Reduce, Refine, Respect.
- **Human Participant Protection**. The highest priority is the health and well-being of the student researcher(s) and human participants.
- **Potentially Hazardous Biological Agents (PHBAs)**. It is the responsibility of the student and adults involved in the project to conduct and document a risk assessment, and to safely handle and dispose of organisms and materials.
- Scientific fraud and misconduct are not condoned at any level of research or competition. This includes plagiarism, forgery, use or presentation of other researcher's work as one's own, and fabrication of data. Fraudulent projects will fail to qualify for competition in

ISEF. We reserve the right to revoke recognition of a project subsequently found to have been fraudulent.