University of South Carolina Region

Science and Engineering Fair

2025 Rules and Participation Handbook

Middle School (6th – 8th Grades) Competition

Friday, March 7, 2025

Pastides Alumni Center

900 Senate Street

Columbia, SC 29201

Important Dates

Deadline for Project Registration	Friday, February 14, 2025 Online, MySciFair.com
Science and Engineering Fair Competition	Friday, March 7, 2025 Pastides Alumni Center, Columbia
Awards Ceremony	Sunday, March 23, 2025 Washington Auditorium, USC Campus

Project Registration

Project registration will be managed through www.myscifair.com.

Creating a student account:
Video Directions
Written Directions

Create a teacher account:
Video Directions
Written Directions

Project Registration Fees

Individual Project	$25
Group Project (two or three group members)	$45

Students, please find out from your teacher or mentor if your school or school district will be paying students' registration fees. If your school will be paying for your registration, please do not pay your registration fee individually. If your school or school district is not paying students' registration fees, you can pay online or by check by Friday, February 14, 2025.

To pay the registration fee for an Individual Project online, Click Here.
($1.00 convenience fee included when paying online)

To pay the registration fee for a Group Project online, Click Here.
($1.50 convenience fee included when paying online)

Please make paper checks payable to "**University of South Carolina**" and write **"Science Fair"** in the memo line. Mail paper checks to:

Center for Science Ed / SEF
715 Sumter Street
CLS 401 (Biology)
Columbia, SC 29208

Make sure to include the names of the student(s) and their school with payment by check!

If Registration Fees are not paid or postmarked by **Friday, February 14, 2025,** projects may not be eligible for consideration as Category, Special or Grand Award winners.

Competition Rules

Participant Eligibility

Students in 6th – 8th grade enrolled in public, private or homeschool programs in the following counties are encouraged to prepare a project for the 2025 University of South Carolina Region Science and Engineering Fair: **Allendale, Aiken, Bamberg, Barnwell, Calhoun, Clarendon, Edgefield, Fairfield, Hampton, Kershaw, Lexington, McCormick, Newberry, Orangeburg, Richland, Saluda, and Sumter Counties**

If you live outside of the above counties and are looking for information about a Science and Engineering Fair in your area, please check this page. Students are not permitted to enter more than one regional science and engineering fair in the same year. An Individual Project is completed by one student. A Group Project is completed through collaboration of two or three students. The maximum group size is three students.

Ethics Statement

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 at the University of South Carolina Region Science and Engineering Fair. The University of South Carolina Region Science and Engineering Fair reserves the right to disqualify and/or revoke recognition of a project subsequently found to have been fraudulent.

General Rules

It is the responsibility of the Student Researcher(s) and Adult Sponsor to evaluate the Research Plan prior to experimentation and / or data collection to ensure all required forms are completed and / or reviews and approvals have been obtained. This is especially important if human subjects, vertebrate animals, potentially hazardous biological agents or hazardous chemicals, activities or devices are part of the Research Plan.

Library research, demonstrations and project kits are not appropriate projects for the Science and Engineering Fair. Examples of projects not appropriate for the SEF include:

- A report about a STEM-related career
- A demonstration of a baking soda volcano, dog training technique, drone flight skills or food cooking
- Building different circuits from a store-bought kit or following a series of steps in a project book steps to cause a color-changing chemical reaction

Projects must adhere to local, state and U.S. Federal laws, regulations and permitting conditions. In addition, projects conducted outside the U.S. must adhere to the laws of the country and the jurisdiction in which the project was performed.

Introduction or disposal of non-native and/or invasive species (e.g. insects, plants, invertebrates, vertebrates) pathogens, toxic chemicals and foreign substances into the environment is prohibited. It is recommended that students reference their local, state or national regulations and quarantine lists.

Failure to follow Competition Rules may result in research projects being displayed as Exhibition Only, meaning the project will not be considered for awards, or in projects and / or Student Researcher(s) being prohibited from participation in the University of South Carolina Region Science and Engineering Fair.

Schedule of Events

Friday, March 7, 2025

Time	Location	Event
8:00 am	Lobby	Doors Open for Check-In
8:00 – 9:00 am	Lobby	Check-In and Project Display Board Set Up
9:00 – 10:00 am	Exhibit Hall	Round 1 Judging
10:00 – 10:15 am	Exhibit Hall and Lobby	Break
10:15 - 11:00 am	Exhibit Hall	Round 1 Judging, Continued
11:00 am – 12:00 pm	Columbia, SC	Lunch Break
12:00 pm	Exhibit Hall	Round 2 Projects Announced
12:00 – 12:15	Exhibit Hall	Project Take Down
12:15 am – 1:00 pm	Exhibit Hall	Round 2 Judging
1:00 – 1:15 pm	Columbia, SC	Break
1:15 – 2:00 pm	Exhibit Hall	Round 2 Judging, continued
2:00 – 2:15 pm	Exhibit Hall	Project Take Down

Scheduling Notes

We will do everything possible to stick to the above schedule, and any necessary changes to the timeline will be announced aloud and via on-screen projection in the Exhibit Hall.

Judges will be expecting to hear a **seven-minute** summary of research projects in Round 1 and Round 2. Student Researchers who present longer summaries to judges in Round 1 and Round 2 may have less time for judges to ask questions.

Student Researchers are expected to return to the Exhibit Hall promptly after scheduled breaks. Student Researchers dismissed after Round 1 will be asked to quickly and quietly remove their Project Display Boards and exit the Exhibit Hall to allow quick transitions between rounds of competition.

Project Approval and Paperwork Process

Planning the Research Project

All projects must have a Research Plan, which will be written **prior to experimentation or data collection**. The Research Plan will be written in future tense and include the following detailed sections:

- Project Rationale: A brief synopsis of the background that supports your research question or engineering goal. Explain why this research is important and any societal impacts your project might have.
- Research Questions and/or Engineering Goals
- Methodology: List of materials, detailed procedures that will be used in completing your project.
- Risk Assessment: Use the Risk Assessment / Form 3 to identify any potential risks and the safety precautions needed to complete the project.
- Bibliography

Student Researchers will complete the Student Checklist / Form 1A. This is required for all projects before experimentation or data collection begins.

The Student Researcher(s) and Adult Sponsor (usually the student's science teacher) will discuss the Research Plan, including discussing the Risk Assessment / Form 3. The Adult Sponsor may require the Student Researcher(s) to revise the Research Plan before it can be approved and data collection can begin. Depending on the specific details included in the Research Plan, the Adult Sponsor may be able to complete the Checklist for Adult Sponsor / Form 1 and the Student Researcher(s) and their parent/guardian may be able to complete the Approval Form / Form 1B, and data collection may begin, or further project approvals may be needed as described in the 2025 ISEF Rulebook and in this section.

Experimentation and/or data collection may not begin on any project until the Student Researcher(s) and Adult Sponsor have discussed the Research Plan and Risk Assessment, and Form 1, Form 1A and Form 1B have been completed, including dated signatures of the Student Researcher(s), Adult Sponsor and parent/guardian. Depending on the specific details of the Research Plan, additional steps may be needed before the Research Plan can be approved, as described below.

If the Research Plan indicates that **Humans** will be involved:

- The Research Plan will need to be approved by an Institutional Review Board (IRB) prior to experimentation or data collection. More information about IRBs can be found in the Roles and Responsibilities of Students and Adults Section.
- The Human Participants Form / Form 4 must be completed (including all dated signatures) before experimentation or data collection begins.
- If the IRB requires it, the Student Researcher(s) must get Informed Consent from all human subjects and include a copy of the Informed Consent Form when registering their project for competition. A sample Informed Consent Form can be found here.
- If the IRB requires it, the Student Researcher(s) must work with a Qualified Scientist to plan and/or complete experimentation or data collection. If the IRB requires a Qualified Scientist, the Qualified Scientist Form / Form 2 must be completed (including all dated signatures) before experimentation or data collection begins.

If the Research Plan indicates that **Vertebrate Animals** will be involved:

- The Research Plan will need to be approved by a Scientific Review Committee (SRC) prior to experimentation or data collection. More information about SRCs can be found in the Roles and Responsibilities of Students and Adults Section.
- The Vertebrate Animal Form / Form 5A OR Vertebrate Animal Form / Form 5B must be completed (including all dated signatures) before experimentation or data collection begins.
    - Form 5A applies when the Research Plan indicates the project will be completed at the Student Researcher's home, school or in the field.
    - Form 5B is required when the project will be completed at a Regulated Research Institution, and the Regulated Research Institution / Industrial Setting Form / Form 1C will also be required.
- If the SRC requires it, the Student Researcher(s) must work with a veterinarian, Qualified Scientist, and/or Direct Supervisor to plan and/or complete experimentation / data collection. If the SRC requires a veterinarian, Qualified Scientist or Direct Supervisor, the appropriate sections must be completed (including all dated signatures) on Form 5A before experimentation or data collection begins.
- If the SRC requires a Qualified Scientist, the Qualified Scientist Form / Form 2 must be completed (including all dated signatures) before experimentation or data collection begins.

If the Research Plan indicates that **Potentially Hazardous Biological Agents (PHBAs)** such as microorganisms, rDNA, fresh/frozen tissue, blood, blood products or body fluids will be involved:

- The Research Plan will need to be approved by a Scientific Review Committee (SRC) prior to experimentation or data collection. More information about SRCs can be found in the Roles and Responsibilities of Students and Adults Section.
- In nearly all cases where a student researcher plans to work with PHBAs, a Qualified Scientist or Direct Supervisor will be required by the SRC. The Qualified Scientist or Direct Supervisor will work with the Student Researcher(s) to complete the PHBA Risk Assessment Form / Form 6A. If the SRC requires a Qualified Scientist or Direct Supervisor, the appropriate sections must be completed (including all dated signatures) on Form 6A before experimentation and / or data collection begins.
- If the PHBAs the Student Researcher(s) plans to work with come from vertebrate tissue, the Human and Vertebrate Animal Tissue Form / Form 6B will also need to be completed (including all dated signatures) before experimentation and / or data collection begins.
- If the SRC requires a Qualified Scientist, the Qualified Scientist Form / Form 2 must be completed (including all dated signatures) before experimentation or data collection begins.
- If, after reviewing the Research Plan and Risk Assessment / Form 3, the Adult Sponsor confirms that the project involves ONLY PHBAs that are exempt from prior review, SRC approval may not be needed. See Checklist for Adult Sponsor / Form 1 and ISEF Rulebook (pages 15-17) for more information.

If the Research Plan indicates that **Hazardous Chemicals, Activities or Devices** such as DEA-controlled substances, prescription drugs, alcohol, tobacco, firearms, explosives, radiation, lasers, etc. will be involved:

- Due to the wide variety of hazards and their risks, the University of South Carolina Region Science and Engineering Fair will not attempt to summarize the specific project approvals and supervision that may be required before and during experimentation and / or data collection for specific project components. Please carefully read the relevant section of the ISEF Rulebook (pages 19-21) for the specific approvals and supervision that will be required before and during experimentation and / or data collection. Contact the SEF director at CSEEvent@sc.edu with questions regarding a specific project, if necessary.

The Student Researcher(s) and Adult Sponsor may also want to carefully consider the Research Plan if the proposed project is a **continuation of a previously reported research project**. In cases where a proposed project is a continuation of previous work, the Continuation / Research Progression Projects Form / Form 7 will need to be completed (though not necessarily before data collection begins). The Student Researcher(s) will want to make sure judges at the regional SEF and/or ISEF will have a very clear understanding of how the newly presented work is different from the previously presented work.

Failure to obtain necessary approvals of the Research Plan prior to experimentation / data collection, or failure to provide the required Forms to fair management may result in research projects being displayed as Exhibition Only, meaning the project will not be considered for awards or advancement to ISEF, or in projects and / or Student Researcher(s) being prohibited from participation in the University of South Carolina Region Science and Engineering Fair.

Experimentation, Data Collection and Data Analysis

Once the Student Researcher(s) has received approval of their Research Plan, data collection and / or experimentation can begin. Similar to "real life" scientific or engineering work, the Research Plan may need to be modified as the project progresses. This is normal and not a problem! The Student Researcher(s) should work with the Adult Sponsor to make sure that changes to the Research Plan don't involve increased risks or use of new materials that would require consideration or reconsideration by the SRC.

The Student Researcher(s) will keep careful records documenting their experimentation and / or design process. Those records and raw data may be brought to the competition but are not required. In nearly all cases, raw data must be analyzed and appropriately summarized as the Project Summary is written.

Writing the Project Summary and Abstract

Student Researchers will complete their Project Summary after data collection is completed. While there is some flexibility in the specific format Student Researchers use in their Project Summary, most will include the following:

- Descriptive project title
- Introduction / background
- Problem statement, design goal or hypothesis
- Experimental methods or process for development of design solution or prototype
- Summarized data, data analysis and results
- Discussion or evaluation of design solution / prototype
- Bibliography

Student Researchers will also write an abstract, which is a very short summary of the research or design project. Abstracts will be a **maximum of 250 words** and include the following:

- Purpose of the experiment or design project
- Procedure or methods used
- Most important results
- Conclusions or brief evaluation of the design solution

The abstract should not include:

- Names of mentors, supervisors or institutions where the research was conducted
- Self-promotion or external endorsements
- Details of previous research

Preparing the Project Display Board

Student Researchers will prepare a Project Display Board to showcase their research or engineering process and results at the University of South Carolina Region Science and Engineering Fair. Displays will have a maximum depth (front to back) of 30 inches, width (side to side) of 48 inches, and height (table surface to top) of 42 inches.

Student Researchers will include their **first and last name** on their Project Display Board. Student Researchers will also include their project number, assigned through MySciFair SEF management system. If a student is unsure about their project number, it can be confirmed at project check-in on the day of competition and added to the Project Display Board at that time.

Student Researchers should **NOT** include the names of their teacher or other mentors, school or school district on their display board. Student Researchers should also not include personal information such as home address, email address, social media account information, etc.

Photographs on Project Display Boards must have credit lines indicating who took the photo. Visual depictions that illustrate components or processes must include a credit line or citation indicating who created the visual or graphic.

Project displays may incorporate a laptop computer to compliment or enhance the information presented on the Project Display Board. If used, a laptop computer should be placed on the table in front of or next to the Project Display Board. Electrical supply for laptop computers during the event is not guaranteed. The University of South Carolina Region Science and Engineering Fair will not be responsible for lost, damaged or stolen laptop computers.

Student Researchers may bring props or models / prototypes to include with or on their displays, and props, models and prototypes must stay in the immediate area of the display board. The following will not be allowed in the exhibit hall:

- Living, dead or preserved organisms
- Human or animal parts or fluids
- Bacteria or mold cultures
- Chemicals or liquids, including water
- Poisons, drugs, granules, powders, grease/oil, controlled or hazardous substances
- Sharp items, such as needles or knives
- Glass or glass objects
- Pressurized tanks or containers
- Batteries with open top cells
- Dirt, soil, sand, rocks or gravel
- Photographs or drawings of animals or people undergoing or engaged in surgical techniques or necropsies
- Any other items deemed potentially hazardous by SEF staff

At the time this Handbook is being published, availability of electrical outlets for demonstrating project components is not yet known. Please check the University of South Carolina Region Science and Engineering Fair website for updates closer to the date of competition. Use of electrical outlets in the Exhibition Hall or other locations in the Pastides Alumni Center for charging personal devices such as phones, tablets, etc. will be prohibited during the Science and Engineering Fair.

Roles and Responsibilities of Students and Adults

Student Researcher

The Student Researcher(s) is / are responsible for all aspects of the research project including enlisting the aid of any required supervisory adults (Adult Sponsor, Qualified Scientist, etc.), obtaining necessary approvals (SRC, IRB, etc.), following the Rules and Guidelines of ISEF, and performing experimentation engineering, data analysis, etc.

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. The University of South Carolina Region Science and Engineering Fair reserves the right to revoke recognition of a project subsequently found to have been fraudulent.

Adult Sponsor

An Adult Sponsor may be a teacher (usually and preferred), parent, professional scientist in whose lab the Student Researcher is working or other STEM mentor. The Adult Sponsor must have a solid background in science and / or engineering and should have close, professional contact with the Student Researcher during the course of the project. The Adult Sponsor should work with the Student Researcher(s) to ensure all Regional and ISEF Rules are followed so that the project is eligible for entry in the University of South Carolina Region Science and Engineering Fair and ISEF.

Qualified Scientist

A Qualified Scientist should have earned a doctoral / professional degree in a scientific discipline that relates to the Student Researcher's area of research. Alternatively, the SRC may consider an individual with extensive experience and expertise in the student's area of research as a Qualified Scientist. The Qualified Scientist must be thoroughly familiar with local, state, and federal regulations that govern the Student Researcher's area of research.

Director Supervisor

The Director Supervisor is an adult who is directly responsible for overseeing the Student Researcher's experimentation. The Director Supervisor need not have an advanced degree but must be thoroughly familiar with the Student Researcher's project and must be trained in the Student Researcher's area of research.

Local Scientific Review Committee

The Local Scientific Review Committee is responsible for evaluating the Student Researcher's Research Plans prior to experimentation and / or data collection to ensure that the Research Plan:

- Have evidence of proper supervision,
- Comply with guidelines, rules or laws that govern human and / animal research and research involving potentially hazardous biological agents and / or hazardous chemicals, activities or devices,
- Are ethically sound and responsible,
- Use accepted and appropriate research techniques,
- Accurately assess and minimize or mitigate potential risks, and
- Ensure humane treatment of animals.

While not every project needs pre-approval by an SRC, projects that use vertebrate animals or potentially hazardous biological agents will probably need to be considered by an SRC.

An SRC must consist of at least three people, including the following:

- A biomedical scientist who has earned a graduate degree,
- An educator, and
- At least one additional member.

Often, SRCs will need members with specific expertise. It is common for a veterinarian to be part of an SRC when there are projects that involve vertebrate animals.

SRCs may require a Student Researcher's Research Plan to be revised prior to SRC approval. The SRC can also require the Student Researcher to work with a Qualified Scientist or a Direct Supervisor.

Local Institutional Review Board

The Institutional Review Board is a committee that evaluates Student Researcher's Research Plans prior to experimentation and / or data collection to evaluate the potential physical and / or psychological risk of research involving humans. All proposed human research must be reviewed and approved by an IRB before experimentation and / or data collection begins. This includes review of any surveys or questionnaires to be used in a project.

An IRB must consist of at least three people, including the following:

- An educator (cannot be the same person as any Adult Sponsor for a project the IRB is reviewing)
- A school administrator (preferably a principal or assistant principal)
- A medical or mental health professional (medical doctor, nurse practitioner, physician's assistant, pharmacist, registered nurse, psychologist, licensed social worker, etc.)

IRBs may require a Student Researcher's Research Plan to be revised prior to IRB approval. The IRB can also require the Student Researcher to work with a Qualified Scientist to complete the project.

Local Combined SRC / IRB Committees

A combined committee is allowed as long as the people on the combined committee meet the requirements of the SRC and IRB listed above.

Regional Scientific Review Committee

All projects entered in the 2025 University of South Carolina Region Science and Engineering Fair will be reviewed by the Regional SRC prior to the date of competition. Before the Region SEF, the Regional SRC will review all Research Plans and Project Summaries entered in the event, confirm that any necessary forms are fully completed, and that the rules of the competition have been followed. A member of the Regional SRC may contact the Student Researcher(s) or Adult Sponsor as necessary to gather additional information to ensure that projects qualify to compete. Though the Regional SRC is dedicated to working with Student Researchers to clarify and remedy any issues prior to the regional competition, the Regional SRC is the final arbiter of the qualification of students to participate in the University of South Carolina Region Science and Engineering Fair.

Additionally, the Regional SRC can be a resource for Local SRCs or IRBs during initial review and preapproval of Research Plans. Please email CSEEvents@sc.edu with questions or for assistance.

Judging Rubrics and Protocols

Judging Criteria for Science Projects

Research Question (10 points)

Clear and focused purpose
Identifies contribution to the field of study
Testable using scientific method

Design and Methodology (15 points)

Well-designed plan and data collection methods
Variables and controls defined, appropriate and complete

Data Collection, Analysis and Interpretation (20 points)

Systematic data collection and analysis
Reproducibility of results
Appropriate application of mathematical and statistical methods
Sufficient data collected to support interpretation and conclusions

Creativity (20 points)

Project demonstrates significant creativity in one or more of the above criteria

Presentation (35 points)

Project Display Board (10 points)

Logical organization of materials
Clarity of graphics and legends
Supporting documentation displayed

Interview (25 points)

Clear, concise, thoughtful responses to questions
Understanding of the basic science relevant to the project
Can clearly describe how the results and conclusions are interpreted and also the limitations on the results and conclusions
Degree of independence in conducting project (having help is both okay and expected!)
Recognition of potential impact on science, society and/or economics
Quality of ideas for future research
For team projects, contributions to and understanding of project by all team members

Judging Criteria for Engineering Projects

Research Problem (10 points)

Description of a practical need or problem to be solved
Definition of criteria for proposed solution
Explanation of constraints

Design and Methodology (15 points)

Exploration of alternatives to answer need or problem
Identification of a solution
Development of a prototype or model

Construction and Testing (20 points)

Prototype or model demonstrates intended design
Prototype or model has been tested in multiple conditions / trials
Prototype demonstrates engineering skill and completeness

Creativity (20 points)

Project demonstrates significant creativity in one or more of the above criteria

Presentation (35 points)

Project Display Board (10 points)

Logical organization of materials
Clarity of graphics and legends
Supporting documentation displayed

Interview (25 points)

Clear, concise, thoughtful responses to questions
Understanding of the basic science relevant to the project
Can clearly describe how the results and conclusions are interpreted and also the limitations on the results and conclusions
Degree of independence in conducting project (having help is both okay and expected!)
Recognition of potential impact on science, society and/or economics
Quality of ideas for future research
For team projects, contributions to and understanding of project by all team members

Round 1 Judging

Projects will have approximately three official judge interviews. Student Researchers should prepare a **seven-minute** summary of their research and be prepared to answer approximately five minutes of questions from judges in each interview. Student Researchers should be aware that if their summary presentation takes longer than seven minutes, judges will have less time to ask questions. Student Researchers are asked to remain with their Project Display Boards as much as possible during the judging period. Official interviews may be conducted by individuals or pairs of judges. An interview by a pair of judges will be considered two official judge interviews.

Advancement to Round 2

Judges will collaborate to determine Projects that will advance to Round 2. Student Researchers will have their lunch break during this time. Projects advancing to Round 2 will be announced aloud and via on-screen projection in the Exhibit Hall at the end of the lunch break. Projects not advancing to Round 2 will be dismissed from the Exhibit Hall, and those Student Researchers will be excused and will take their Project Display Boards with them.

Round 2 Judging

Projects will have approximately three official judge interviews. Student Researchers should prepare a **seven-minute** summary of their research and be prepared to answer approximately five minutes of questions from judges in each interview. Student Researchers should be aware that if their summary presentation takes longer than seven minutes, judges will have less time to ask questions. Student Researchers are asked to remain with their Project Display Boards as much as possible during the judging period. Official interviews may be conducted by individuals or pairs of judges. An interview by a pair of judges will be considered two official judge interviews.

Competition Categories

Animal Sciences

- Animal Behavior
- Cellular Studies
- Development
- Ecology
- Genetics
- Nutrition and Growth
- Physiology
- Systematics and Evolution
- Animal Sciences-Other

Behavioral and Social Sciences

- Anthropology
- Behavioral Neuroscience
- Development
- Cognitive Psychology
- Sociology
- Behavioral and Social Sciences-Other

Biology and Biomedical

- Antimicrobials and Antibiotics
- Applied Microbiology
- Bacteriology
- Biomaterials and Regenerative Medicine
- Biomechanics
- Biomedical Devices
- Biomedical Engineering
- Biomedical Sensors and Imaging
- Biomedical and Health Sciences
- Cell and Tissue Engineering
- Cell, Organ and Systems Physiology
- Cell Physiology
- Cellular and Molecular Biology
- Cellular Immunology
- Disease Diagnosis and Detection
- Disease Prevention
- Disease Treatment and Therapies
- Drug Identification and Testing
- Environmental Microbiology
- Genetics
- Genetics and Molecular Biology of Disease
- Immunology
- Microbial Genetics
- Microbiology
- Molecular Biology
- Neurobiology
- Nutrition and Natural Products
- Pathophysiology
- Pre-Clinical Testing
- Synthetic Biology
- Translational Medical Sciences
- Virology
- Cellular and Molecular Biology-Other
- Biomedical and Health Sciences-Other
- Biomedical Engineering-Other
- Microbiology-Other
- Translational Medical Sciences-Other

Biochemistry and Chemistry

- Analytical Biochemistry
- Analytical Chemistry
- Computational Chemistry
- Environmental Chemistry
- General Biochemistry
- Inorganic Chemistry
- Materials Chemistry
- Medicinal Biochemistry
- Organic Chemistry
- Structural Biochemistry
- Physical Chemistry
- Biochemistry-Other
- Chemistry-Other

Earth Sciences, Environmental Sciences and Environmental Engineering

- Atmospheric Science
- Bioremediation
- Climate Science
- Environmental Effects on Ecosystems
- Geosciences
- Land Reclamation
- Pollution Control
- Recycling and Waste Management
- Water Resource Management
- Water Science
- Earth and Environmental Sciences-Other
- Environmental Engineering-Other

Engineering Technology, Sustainable Materials and Design, and Materials Science

- Aerospace and Aeronautical Engineering
- Biological Process and Design
- Biomaterials
- Ceramics and Glasses
- Civil Engineering
- Composite Materials
- Computation and Theory
- Computational Mechanics
- Control Theory
- Electronic, Optical, and Magnetic Materials
- Energy Storage
- Ground Vehicle Systems
- Hydrogen Generation and Storage
- Industrial Engineering-Processing
- Mechanical Engineering
- Nanomaterials
- Naval Systems
- Polymers
- Solar Process, Materials and Design
- Thermal Generation and Design
- Triboelectricity and Electrolysis
- Wind and Water Movement Power Generation
- Engineering Technology-Other
- Materials Science-Other
- Sustainable Materials and Design-Other

Mathematics and Computer Sciences

- Algebra
- Algorithms
- Analysis
- Biomechanics
- Circuits
- Cognitive Systems
- Combinatorics, Graph Theory or Game Theory
- Computational Biology and Bioinformatics
- Computational Biomodeling
- Computational Epidemiology
- Computational Neuroscience
- Computational Pharmacology
- Control Theory
- Cybersecurity
- Databases
- Embedded Systems
- Genomics
- Geometry and Topology
- Human/Machine Interface
- Internet of Things
- Language and Operating Systems
- Machine Learning
- Mathematics
- Microcontrollers
- Mobile Apps
- Networking and Data Communications
- Number Theory
- Online Learning
- Optics
- Probability and Statistics
- Sensors
- Signal Processing
- Systems Software
- Robotics and Intelligent Machines
- Robot Kinetics
- Computational Biology and Bioinformatics-Other
- Embedded Systems-Other
- Mathematics-Other
- Robotics and Intelligent Machines-Other
- Systems Software-Other

Physics and Astronomy

- Atomic, Molecular, and Optical Physics
- Astronomy and Cosmology
- Biological Physics
- Condensed Matter and Materials
- Mechanics
- Nuclear and Particle Physics
- Theoretical, Computational and Quantum Physics
- Physics and Astronomy-Other

Plant Sciences

- Agriculture and Agronomy
- Ecology
- Genetics and Breeding
- Growth and Development
- Pathology
- Plant Physiology
- Systematics and Evolution
- Plant Sciences-Other

Technology Enhances the Arts

- Display Technology
- Human Information Exchange
- Music and Image Manipulation
- Games
- 3D Modeling
- Engineering Effects
- Technology Enhances the Arts-Other

Awards and Awards Ceremonies

Category Awards

Category awards will be presented to students in each of the Competition Categories listed above. There will be multiple winners in 1st, 2nd and 3rd place, in proportion to the number of entries in each category.

Dr. Gary Allen Excellence in Scientific Communications Award

Communication of scientific and engineering findings is a critical skill, and the Dr. Gary Allen Excellence in Scientific Communications Award will be presented to Student Researchers in recognition of individuals with the top Project Display Boards and/or judge interviews.

Special Awards

Local, state and national organizations may sponsor Special Awards. Each Special Award will have specific judging criteria, and community members may serve as judges for Special Awards. More information will be available in January 2025 regarding the Special Awards to be presented at this year's Science and Engineering Fair.

If you know of a community organization that would like to sponsor a Special Award, please encourage them to email CSEEvent@sc.edu.

Awards Ceremony

Sunday, March 23, 2025 at 1:30 pm
Booker T. Washington Auditorium (Room 200)
University of South Carolina
1400 Wheat Street
Columbia, SC 29201