

SPECIAL AWARDING AGENCY

Judge's Manual

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Introduction

Every year, over 50 professional organizations affiliate with the Science and Engineering Fair of Houston (SEFH) as Special Award Agencies (SAAs). These organizations represent government, industry, and educational institutions across a wide range of scientific disciplines.

The Special Awards Program is a vital component of SEFH, allowing organizations, businesses, and individuals to support STEM education by recognizing and engaging with SEFH participants in specialized areas of interest. This program complements the Grand Awards Program by involving more professionals, scientists, and engineers, and honoring more students for their exceptional STEM achievements. Special awards can take various forms, including certificates, cash, trips, equipment, work fellowships, and internships, with criteria determined by the sponsoring SAA.

SEFH emphasizes inquiry-based STEM education, culminating in a progression from individual schools and home schools, through District/School Science Fairs, to SEFH. Exceptional middle and high school students from SEFH are then sponsored to compete at the Texas State Science and Engineering Fair and the International Science & Engineering Fair.

The primary objective of the Special Awards Program is to reward students for their remarkable work and to foster peer interaction between professionals, scientists, and engineers. This interaction aims to spark student interest in STEM fields they may not have been aware of and provide a bridge for further engagement between STEM professionals and students.

Participation in the Special Awards Program is coordinated through SEFH and involves providing awards, identifying judges to interview students, and presenting the awards at the Awards Ceremony. The benefits for sponsoring organizations include:

- Supporting science education in the Houston region.
- Supporting individual STEM students in their endeavors.
- Interacting with top STEM students on a peer-to-peer level.
- Offering advice and assistance within their areas of STEM expertise.
- Inviting students to further explore the organization's area of STEM.
- Inviting winning students to organizational events.

Your participation in the Special Awards Program is paramount. By seeing and judging the science and engineering projects created by these aspiring STEM students, you will be inspired and uplifted, knowing that the future of STEM is secured by these bright young minds.

Benefits of being a Special Awarding Agency at Science & Engineering Fair of Houston

- Joining an exclusive group of corporations, associations, academic institutions, and other organizations that provide over \$50,000 in awards, scientific trips, internships, and scholarships annually.
- Unique one-on-one interaction with the top 1,000 young scientists and researchers in the Houston area and its surrounding counties as your employees or members serve as SEFH judges and participate in this highly regarded and rewarding process.
- A launch point for long-term relationships with designated awardees, who can become lifelong members, employees, and supporters of your organization.
- PR opportunities for your organization to showcase its support of science education, including media exposure through print, online, and social media.
- Exposure and acknowledgment on SEFH SAA website, social media, and in materials publicizing the participation and awards of your organization to the attendees, parents, and guardians of SEFH.
- Interaction and networking opportunities with an estimated 50 SAAs, including leading members of industry and academia.
- On-site and SEFH-specific benefits, including registration for SAA judges, inclusion in promotional materials, a designated meeting area, and lunch for on-site judges, and inclusion in award ceremony photography.

What are Special Awarding Agencies?

A Special Awarding Agency (SAA) is an organization that grants special awards in various scientific and engineering disciplines at the Science and Engineering Fair of Houston (SEFH). These organizations, which range from the American Industrial Hygiene Association to the Society of Women Engineers, set their own criteria for the awards they provide. These criteria can cover a single category or multiple categories, and each organization determines the eligibility of students and selects the winners. The awards offered by SAAs can include cash prizes, scholarships, certificates, plaques, trips to laboratories or professional meetings, subscriptions to professional journals, books, equipment, and more.

Registration of a Special Awarding Agency

To register as a SAA, please visit the SEFH website at sefhouston.org. **The Lead Judge or Organizer should complete the SAA registration before recruiting judges.**

SAA's that are not pre-registered before the fair date will be able to do so on the day of the fair and will be allowed to judge projects at SEFH.

Special Awarding Agency Judging Procedures

Judge Recruitment:

SAA's are responsible for recruiting their judges to select the winners of their awards. Once an SAA completes its registration, a confirmation email is sent to the Primary Contact's email address, containing a unique judge registration link. The Primary Contact must then forward this link to their prospective judges. It is important to note that a judge cannot serve as both a special award judge and a place award judge.

The sponsoring organization, through its designated primary contact or judge leader, is responsible for finalizing the assignments of their judges. The SEFH abstract directory, which includes topics, titles, and project ID, serves as the initial source of project information. Project abstracts are sent to each SAA's designated primary contact one week prior to the fair, and it is the responsibility of the primary contact to distribute these abstracts to the organization's judging party.

Project Abstracts:

The SEFH abstract directory is the primary source for topics and titles of projects that have been cleared to compete at SEFH. Access instructions for the abstract directory will be sent to the SAA's designated primary contact. It is recommended that SAA's review the student abstracts in advance to identify projects that align with their organization's interests. This preliminary review helps streamline the selection process and reduces the number of projects that need to be reviewed in detail on the day of the fair.

Special Awarding Agency Check-in Process:

Starting at 10:00 AM, SAA Lead Judges and organizers may begin to check in. While check-in starts at this time, all SAA's should complete their check-in no later than 12:30 PM. Upon check-in, the Lead Judge will receive a Judging Record folder, which contains a reporting sheet for the final certification of judging results for all awards. The Special Awards Leader of each judging group is responsible for this folder. The Lead Judge must submit the final certification document to the check-in table no later than 5:00 PM on Saturday afternoon.

We recommend that each SAA provide a minimum of three(3) judges, although the number of judges per organization may vary depending on the scope of the awards and the number of projects to be reviewed. Team Leaders or Coordinators of Special Awards should ensure they have an adequate number of judges, as judging at SEFH occurs over a relatively short period,

making it essential to have enough judges to efficiently select winners.

Judges should coordinate with their Lead Judge regarding their check-in time. While judging may begin at 11:00 AM, all judges should check in no later than 12:30 PM. All SAA judging must conclude by 4:15 PM.

Judges should aim to allocate no more than ten (10) minutes per project. If an exhibitor cannot be located, the organization may choose to assess the project display board or disqualify it from consideration for their award. Projects, whether individual or team, should be evaluated consistently. If a selected project is a team project, ensure there are sufficient awards for each team member. Each project should have copies of their abstract available. As judges interact with students, they should collect a copy of the abstract for each project being considered for an award.

Final Certification of results is not official until the Leader has:

- Returned the Judging Record Folder and its certification sheet to the SAA check in table (Appendix A)
- Reviewed computer-generated documents to confirm proper inclusion of each award winner

***** Final awards documentation must be received before the special awards leader leaves the judging area.**

Judging Criteria

Special Award Judges receive criteria and coordination instructions from the organization they represent, guided by their designated judging Team Leader. This Team Leader is responsible for finalizing the assignments of their judges.

Each SAA may choose to score projects based on criteria established by their organization. SEFH also provides a suggested scoring criterion, which can be found in the “Judging Record Folder.” This judging sheet is available as a helpful tool for judges as they review the projects (Appendix B). Additionally, the [official SEFH scoresheet](#) can be viewed online. However, **organizations are not obligated** to use the SEFH-provided scoresheet and may create their own criteria to evaluate the merits of each project.

Judging Tips for Special Awarding Agencies

Every SEFH affiliated SAA has its approach to judging at the fair. We provide the following tips and [judging criteria](#) (Appendix C) as suggested aids in your process. The following points may be beneficial to you and your judges as they evaluate the projects.

Judges

- Assess the quality of the student's work and their understanding of their project and area of study. The physical display is secondary to the student's knowledge of the subject. Look for evidence of laboratory, field, or theoretical work, rather than solely library research or gadgeteering.
- Keep in mind that participating in a science fair is not just a competition; it's also an educational and motivating experience for the students. The judging interviews are often the high point of the fair experience for most students.
- Note that students may have worked on a research project for more than one year. However, for judging purposes, only research conducted within the current year should be evaluated. While previous work is important, it should not unduly influence the evaluation of this year's project. Refer to Form 7 displayed at their booth for details on previous work.
- Remember that judges represent professional authority to student participants. Therefore, judges should use an encouraging tone when asking questions, offering suggestions, or providing constructive feedback. Judges should avoid criticism, taking projects lightly, or displaying disinterest in projects they personally consider unimportant. Always acknowledge the student's efforts in completing a challenging task and their success in previous competitions.
- Compare projects only with those competing at this Fair and not with projects seen in other competitions or scholastic events.
- Evaluate the extent of guidance provided to the student in designing and implementing their research. When research is conducted in an industrial or institutional setting, the student should have documentation, often the ISEF Form 1C, that provides a platform for the mentor or supervisor to discuss the project. Judges should thoroughly review this information when evaluating research.

Please exercise discretion when discussing winners or making critical comments in elevators, restaurants, or other public spaces, as participants, teachers, or adult escorts may overhear. The individual judges for both Special Awards and Place Awards are responsible for ensuring that all items associated with judging, except for the official results certification, are collected and destroyed after judging.

Student Participants/Judge Interaction

At SEFH, we believe that all participants are already winners. For many of these students, this day represents the culmination of a year of hard work and passion for their research. While we encourage you to delve deeply into the Participant's knowledge, it is equally important to ensure that each Participant's overall SEFH experience is positive. Keep in mind that the Participants are students taking their first steps into a STEM career, and we hope that through this competition, we can inspire them to pursue science, technology, engineering, and math.

If there is a Participant you would like to connect with regarding further research opportunities or questions about their project, please send an email to info@sefhouston.org with the Participant's name and/or project ID. Do not leave personal business cards or contact information with the Participant or request their contact information. We will facilitate communication between you and the Participants. Participants have also been instructed not to provide personal contact information or accept contact information from others.

If at any point you observe or are informed about an unfavorable or inappropriate interaction between a judge and a Participant(s), please report this information or have the Participant(s) report it to the Associate Fair Director, who will be stationed in the judges area. It is essential to foster a climate of open communication to ensure that all participants have an enjoyable experience during judging day.

Fair Project Categories

The categories listed below are those that will be used at SEFH.

Many projects could easily fit into more than one SEFH category. We highly recommend that your organization review abstracts from similar categories to determine what categories and projects to judge. For definitions of each category, visit the website sefhouston.org.

Life Science	Physical Science	Engineering
Animal Science	Chemistry	Aerospace Engineering
Behavioral & Social Sciences	Earth and Environmental Sciences	Biomedical Engineering
Biochemistry & Microbiology	Energy and Transportation	Chemical Engineering & Materials Science
Medicine and Health	Mathematics	Embedded Systems
Plant Sciences	Physics and Astronomy	Engineering Mechanics
	Systems Software	Environmental Engineering
		Robotics and Intelligent Machines

Dress Code

Please wear professional attire or clothing associated with your specific field of work. If your organization or agency prefers, we encourage you to use clothing that highlights your affiliation with the organization. Ensure that you have comfortable footwear. Participants have been advised to wear business attire. Judging day promises excitement, but it will also be a lengthy event. It is essential to prioritize your comfort. Keep in mind that there will be limited seating available throughout the Exhibit Hall floors if necessary.

Awarding Recipients

This year, SEFH has implemented several positive changes to its educational program to support student STEM success. Notably, your organization will be prominently displayed on the event's electronic screen on both days, providing extended visibility to the community. This ensures that your organization is publicly showcased to all community members throughout the entire event.

Additionally, on Saturday, February 15, beginning at 3:30 PM, your organization is requested to present and recognize awardees. This arrangement allows each SAA to personally congratulate their recipients and provides an opportunity for photographs with your organization's representatives and awardees. Please ensure that if you have chosen a team project, you have an adequate number of awards for each team member.

Furthermore, the SEFH Award Ceremony has been modified to take place on the evening of judging, resulting in a condensed 90-minute schedule. Due to this shortened timeline, the SAA awarding format has been amended. SAA award winners will stand by their seats and be recognized for their accomplishments, as the celebration of their award will have already been conducted with your organization on the main judging floor.

Post Fair Follow-up

If your organization or agency will not present awards at the fair, consider presenting your awardees with a congratulatory letter. This letter should notify the student that the organization or agency will contact them at a later time regarding the award.

Each SAA will receive a list of winners, which includes the students' names, teacher names, parent names, and email addresses. Due to FERPA rules and regulations, SEFH will not release students' personal information. It is the responsibility of each organization or agency to reach out and make arrangements with award recipients if additional communication is needed after the award ceremony.

Fair Location

Fort Bend County Epicenter
28505 Southwest Fwy
Rosenberg, TX 77471

Fair Parking

Please check the [SEFH website](#) for parking updates.

Helpful Links

SEFH website:

<http://www.sefhouston.org>

SAA Information:

[General Information](#)

[SAA Registration](#)

[Resources](#)

Contact SEFH:

info@sefhouston.com

Appendix A



Presented by


SPECIAL AWARDING AGENCY WINNER CERTIFICATION REPORT

Thank you for serving as a Special Awarding Agency!

This certification report will be the only form of winner entry. Please be sure and submit this for to the SAO Check-in table before you depart from the fair. All forms are due no later than 4:30 PM.

A list of winners' contact information will be sent to your lead judge via email within the next few days. Thank you for your service and commitment to the future of STEM, see you next year!

Name of Special Awarding Organization: _____

Name of Award: _____

PROJECT ID	ABBREVIATED TITLE	PLACE <small>(if designated)</small>	AWARD DESCRIPTION

Lead Judge Signature: _____

Appendix B

		SPECIAL AWARDING AGENCY JUDGE SCORESHEET																											
		Category: _____ Division: _____		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="6" style="text-align: center;">Criteria</th> </tr> <tr> <td style="width: 33%;">I. <i>Research Question</i></td> <td style="width: 33%;">IV. <i>Creativity</i></td> <td colspan="4"></td> </tr> <tr> <td>II. <i>Design and Methodology</i></td> <td>V(a). <i>Presentation: Poster</i></td> <td colspan="4"></td> </tr> <tr> <td>III. <i>Execution</i></td> <td>V(b). <i>Presentation: Interview</i></td> <td colspan="4"></td> </tr> </table>				Criteria						I. <i>Research Question</i>	IV. <i>Creativity</i>					II. <i>Design and Methodology</i>	V(a). <i>Presentation: Poster</i>					III. <i>Execution</i>	V(b). <i>Presentation: Interview</i>		
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JUDGE SIGNATURE: _____																																

Appendix C

JUDGING CRITERIA FOR PROJECTS

SCIENCE

- I. Research Question (10 points)**
- clear and focused purpose
 - identifies contribution to field of study
 - testable using scientific methods
- II. Design and Methodology (15 points)**
- well designed plan and data collection methods
 - variables and controls defined, appropriate, and complete
- III. Execution: 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
- IV. Creativity (20 points)**
- project demonstrates significant creativity in one or more of the above criteria
- V.a. Presentation: Poster (10 points)**
- logical organization of material
 - clarity of graphics and legends
 - supporting documentation displayed
- V.b. Presentation: Interview (25 points)**
- clear, concise, thoughtful responses to questions
 - understanding of basic science relevant to project
 - understanding interpretation and limitations of results and conclusions
 - degree of independence in conducting project
 - recognition of potential impact in science, society and/or economics
 - quality of ideas for further research
 - for team projects, contributions to and understanding of project by all members

ENGINEERING

- I. Research Question (10 points)**
- description of a practical need or problem to be solved
 - definition of criteria for proposed solution
 - explanation of constraints
- II. Design and Methodology (15 points)**
- exploration of alternatives to answer need or problem
 - identification of a solution
 - development of a prototype/model
- III. Execution: Construction and Testing (20 points)**
- prototype demonstrates intended design
 - prototype has been tested in multiple conditions/trials
 - prototype demonstrates engineering skill and completeness
- IV. Creativity (20 points)**
- project demonstrates significant creativity in one or more of the above criteria
- V.a. Presentation: Poster (10 points)**
- logical organization of material
 - clarity of graphics and legends
 - supporting documentation displayed
- V.b. Presentation: Interview (25 points)**
- clear, concise, thoughtful responses to questions
 - understanding of basic science relevant to project
 - understanding interpretation and limitations of results and conclusions
 - degree of independence in conducting project
 - recognition of potential impact in science, society and/or economics
 - quality of ideas for further research
 - for team projects, contributions to and understanding of project by all members

