

## **DVSF Judging Procedures - Special Awards**

Congratulations on joining us in our annual quest of “**Selecting The Best and Encouraging The Rest**” of the brightest young minds in our region. Science Fairs are a very rewarding experience for both the judges and our students. You get to interact with future STEM leaders that will renew your hope for our future, and they get to learn from adults that serve as their role models for their future STEM careers.

### **Before the Judging Day:**

All judges will need to [register through STEM Wizard](#). [Returning judges can use your previous login](#) information to register for the current year’s fair. You must complete all milestones so that we can share important updates and information and assign judges to your specific Special Award.

- 1) Milestone #1 - Fair Experience and Qualifications
  - a) This is just basic information about your experience and areas of expertise. Feel free to keep it simple.
- 2) Milestone #2 - Special Awards Judge Information
  - a) This is the most important milestone for a Special Awards judge. Be sure to select YES only if you have been asked to judge for the organization’s Special Award. If you are just volunteering to judge, choose NO. Although you may be willing to be a Special Awards judge, you will not be assigned to that role unless you have been asked to be part of that judging team.
  - b) Be specific with the name of the organization. This will ensure you are linked to its Special Award.
  - c) If you do not have the name of the specific representative from your organization that will attend the Awards Ceremony, please put either NA or UNSURE.
- 3) Milestone #3 - Category Judge Information
  - a) It is very important that you choose NO and are not willing to serve as a Category Judge. If you choose YES, by default you will be put into that judging group and will not be on the Special Awards judge list.
  - b) You do not need to complete the questions for preferred grade level and category. That is only necessary if you are a Category Judge.
- 4) Milestone #4 - Potential Conflicts
  - a) Please include the name of your current employer.
  - b) If you are judging for a professional organization (ASCE, ECP, PSPE, etc.), be sure to list it under professional organizations.
  - c) If you are related to or mentoring a student in this fair, please let me know.

### **Wednesday Judging Day Starts at 8:00 AM**

You must arrive and be ready for an 8:00 AM briefing from our Executive Director. You are welcome to join us at 7:30 AM to meet other judges and enjoy a continental breakfast. The 8:00 AM briefing will provide any last minute instructions and introduce important staff members.

- Many students will be dressed professionally (suits, blazers with dress pants, dresses, etc.); it is up to you if you’d like to do the same.
- Wear comfortable shoes! Even sneakers are OK, since you will be walking around a LOT today.
- Upon arrival at the Greater Philadelphia Expo Center at Oaks, follow signs to park near Hall Entrance B. The building has a digital sign above the entrance, and we have DVSF signs by the door. After entering the hall, pick up your badge from the rectangular tables near the entrance. If your badge is not there, check in at the Judges’ Registration (left-most table there). Be sure to wear your badge visibly all day. Anyone on the exhibit floor MUST have a badge!

- There are several tables reserved for Special Awards judges. They are located on the far end, near the curtains with sponsor banners. They will have yellow signs that say “Special Awards”. If you have a large group of judges, a table sign may have the name of your organization to make it easier for your team to find each other.
- The Director of Awards and Scholarships is usually located near those tables, closest to the entrance to the Exhibit Hall. If you brought certificates, gift cards or other prizes with you, you can give them to her before judging starts. She will also have some sample scoring sheets if your organization does not provide them for you.

#### **Morning Survey of the Projects in Your Category.** (Without students present, from 8:30-11:30 AM.)

- 1) You are welcome to explore the research projects in the Exhibit Hall. The middle school projects are at the front of the hall, and then go towards the back by grade level, with 12th graders being closest to the Judges Area.
- 2) Your organization will define the judging criteria and eligible projects for your special awards. As a team, you will select your winners. If you do not have your own scoring guide, you are welcome to use the DVSF scoring sheets.
  - a) **Research Question (10%)**: the explanation of the project’s merit, what was learned, and how it relates to the project.
  - b) **Design & Methodology (15%)**: how well designed it is, its detailed procedures, & appropriate controls.
  - c) **Data Collection & Testing (20%)**: includes systematic data collection, reproducibility of results, and sufficient data collected
  - d) **Analysis & Conclusion (20%)**: appropriate application of mathematical and statistical methods, data supports the interpretation and conclusion, identifies outliers or unexpected data (no hidden data)
  - e) **Creativity & Potential Impact (10%)**: project demonstrates significant creativity in one or more of the above criteria and/or has potential impact in its field or society.
  - f) **Interview (25%)**: the ability of the students to quickly, concisely, & clearly communicate what they learned.
    - i) For Team Projects, the judge is looking for equal work/knowledge from each teammate.
- 3) Review all your eligible projects’ displays and develop specific questions to ask those students. The more detailed and specific to the details of a project, the better.
  - a) Look through all displayed materials and make notes about positive observations, areas to improve, and questions (about specific project details) you may have for the afternoon interview.
- 4) Please let us know if you are personally connected with any of the students in your group of projects. This will help us avoid any perception of a conflict of interest.

Box lunches are provided in the judges’ hall from 11:30-12:30. Students will arrive and sit with their projects at this time, so they are ready for interviews after lunch.

#### **Afternoon Interviews Start at 12:30 PM**

- 1) It is very important that this is ALWAYS a positive experience for every student. Our charter is to “Select The Best, Encourage The Rest.” Remember these are students, and they are looking for feedback from you, the STEM professionals. Be kind and do not insult students or their work under any circumstances.
- 2) Students have worked hard on their projects and are eager to share them with you. We understand you have professional and personal obligations that may require immediate attention, but please mute your phones during interviews. The students will greatly value your undivided attention.
- 3) Respect students’ & other judges’ personal space. We all have different cultural norms.
- 4) Please do not exchange personal information during the interview process.

- a) Don't attempt to determine the students' identity, school, county, etc.
  - b) Even if well intended, this could be misunderstood as favoritism bias on the part of the judge.
- 5) This is meant to be an interview - try not to allow the student to give you a 10-minute speech.
  - a) Try to have questions ready for the student. That's part of what the preview time is for.
  - b) Consider students that show enthusiasm for their project, do not hide 'bad' data, can explain what caused unexpected results, and how they overcame any obstacles.
- 6) Don't worry if you are nervous, most of the students are more nervous than you are!
- 7) Don't worry if you're not an expert in the project's nuances. Part of what you're grading is the student's ability to explain their project's purpose, methods, and results to you.
- 8) If you are an expert in their project's subject, try hard not to correct or add to the student's answers.
  - a) Otherwise, judges coming after you will think that the student knows more than they actually did.
- 9) Never presume a student "could not have performed the work". We have some amazing young minds out there that in some cases have already been published internationally and/or patented their work.
  - a) Ask them for details of any aspect of the project you have doubts about & find out for yourself.
  - b) We are aware that AI is a tool that can be used inappropriately. Your questions will help you evaluate if the project is the student's original work or not.
- 10) All multiyear projects are required to have a Form 7 detailing what was done in previous years. You may ask the student specifically what was done in the last year, but you should only judge on the current year's work.
- 11) Do not penalize a student for work done in a professional lab; they've had to work to even get access to it.
  - a) Read the required Form 1C for specifics of what the student vs. the lab personnel actually did.
- 12) Students are very aware of how much time a judge spends with their competitors. Be prepared for other students to want to talk to you too if they see you interviewing someone else.
- 13) After your interviews are complete, you'll return to the judges' area to discuss and decide on your winners.

**Sample INTERVIEW Questions** (specific questions about their project are preferred)

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| • How did you pick this project?                  | • How did you start this project?                        |
| • What did you do?                                | • Why did you do it that way?                            |
| • Who did you work with?                          | • What problems did you have to overcome?                |
| • Where did you work?                             | • How did you overcome those problems?                   |
| • How long did you work?                          | • With what resources did you work?                      |
| • What is the significance of your results?       | • Who are the authorities in this field?                 |
| • How did you reach your conclusions?             | • How did these authorities influence your work?         |
| • What did you learn during your project?         | • What was the most surprising thing you learned?        |
| • What new skills did you learn for your project? | • Did you consider doing the project in a different way? |
| • How would you continue this research?           | • What would you change if you had to do it over?        |

**Afternoon Caucus** (Conducted in the Judges Area, away from all students.)

- 1) Your Lead Judge will facilitate your group as you select your winners.
  - a) Be sure your choices align with the number and amount of your prize package.
- 2) A member of your team must complete the Special Awards Recording Sheet in the DVSF Office near the front of the Exhibit Hall. This must be completed by 4:30 PM.
  - a) A volunteer will assist you with the recording sheet. Make sure it has the name of your organization on it, and all contact info is correct. If it isn't, please provide the updates.
  - b) List the project number, rank/place, and the prize amount. Use the first several words of the project title, not a summary or keyword. Many projects include keywords, so it is difficult to identify your winner if there is an error with the project number.

- c) Be sure to complete the bottom section of the form so we know exactly what prizes are being awarded and how they are to be distributed. If you have any certificates, gift cards or other prizes on judging day, please make sure you leave them with the Director of Awards and Scholarships so we have them for the Awards Ceremony.
- 3) Give the Special Awards Recording Sheet to Mary-Rita. If your certificates require the judge's signature, be sure to sign them before you leave for the day.
- 4) Please do not discuss any DVSF awards results with anyone until AFTER the Thursday evening Awards Ceremony, as this is meant to be a surprise for the award winners.
- 5) A Complete Winner's List will be posted on our website ([www.DVSF.org](http://www.DVSF.org)) by Friday afternoon.

Thank you so much for volunteering your time to help advance STEM Education in our region. Your influence can have a lasting effect on these young scientists wherever their lives may lead.