

Procedures for Judging DVSF Category Awards

Congratulations on joining us in our annual privilege 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:

There are on-line forms to be filled out before gaining access to DVSF’s STEM Wizard.

- 1) You’ll be asked to select your preferred grades and categories that you’re willing to judge.
 - a. The grades are divided into **6 separate Science Fairs: 12th, 11th, 10th, 9th, TEAM** (grades 12-9), and **6th-8th** (which includes Middle School TEAMs). TEAM projects can include any Category.
 - b. DVSF’s **Categories** are: Behavioral & Social Sciences, Biochemistry, Botany, Chemistry, Computer, Earth and Space Sciences, Engineering, Environmental, Mathematics, Medicine and Health, Microbiology, Physics, and Zoology. The **6th-8th** Grade Fair also has Consumer Science as a Category.
 - c. DVSF will try to give you your preferred grade/category, but depending on the number of judges versus the projects in our fairs, please accept judging elsewhere if you’re needed there.
- 2) If Project files are available before the fair, use as much time as you can spare to get an overview of the variety, quality, and specific details of as many projects in your category as possible.

What you will be grading each project on:

- 1) **Research (10%)**: the explanation of the project’s merit, what was learned, and how it relates to the project.
- 2) **Design & Methodology (15%)**: how well designed it is, its detailed procedures, & appropriate controls.
- 3) **Execution (20%)**: includes **Data Collection, Analysis, & Interpretation**, without hiding any data.
 - a. For **Engineering Projects**, this is listed as **Construction & Testing**, but is much the same.
- 4) **Creativity (20%)**: how creative this project is, with regard to the above 3 criteria.
- 5) **Display (10%)**: how easy it is for the judge to see what was done, why, and their conclusions.
- 6) **Interview (25%)**: the ability of the students to quickly, concisely, & clearly communicate what they learned.
 - a. For Team Projects, the judge is looking for equal work/knowledge from each teammate.
- 7) The above 6 criteria are only guidelines to give judges (especially new ones) an idea of relative importance. The main thing all judges should be evaluating is **what the student(s) learned**.

Wednesday Judging Day:

Arrive by 8 AM for continental breakfast, meet judges, and be ready for the **8:30 AM Briefing**.

Many students will be dressed professionally (suit & tie, 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.

Drive to the **Greater Philadelphia Expo Center at Oaks**, follow “Judges Parking” signs to park near “**Entrance C**”.

On arrival, pick up your badge at the tables directly across from “**Entrance C**” and wear it visibly all day.

If your badge is not there, check in at the Judges’ Registration (left-most table there).

The 8:30 AM Briefing will introduce your **FAIR COORDINATORS**, where to Team Up, and last-minute instructions.

Category TEAM Meeting: takes care of whatever further organization is needed and to answer your questions.

Category Lead Judge will organize project reviews to ensure every project receives at least two separate reviews.

Morning Survey of the Projects in Your Category. (Without students present, from **9:00-11:30 AM**.)

- 1) For large categories, your Lead Judge should assign which projects you will be responsible to interview.

NOTE: No judge should have to review more than 12 projects.

- 2) Budget your time in order to review all your assigned 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.
 - b. You are judging the relative strengths of the projects today, not comparing those with projects you've seen at other fairs, done by graduate students, or your peers.
- 3) **If you think that you know any of the students in your group of projects**, then you must inform your **FAIR COORDINATORS**, who will assign you to another team to avoid any perception of a conflict of interest.

Afternoon Interviews start at 12:30. (Box Lunches are provided in the Judges' area from **11:30-12:30.**)

- 1) Most Important: this is always meant to be a positive experience for every student. Our charter is to **"Select The Best, Encourage The Rest."** Never insult students or their work under any circumstances.
- 2) This is meant to be a **10-minute interview**, do not 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. Reward students that show enthusiasm for their project, do not hide 'bad' data, can explain what caused unexpected results, and how they overcame any obstacles.
 - c. Due to the large number of 6-8th grade projects, there's usually only 5 minutes for their interviews.
 - d. It is better for each judge to interview students individually, not with a team of judges at once.
- 3) Only evaluate the current year's work, all multiyear projects are required to have a **"Form 7"** detailing what was done in previous years. You can also ask the student specifically what was done in the last year.
- 4) 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.
 - b. We are trying to judge the student/project, hopefully not what you've taught them to say.
- 5) 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.
- 6) Respect students' & other judges' personal space. We all have different cultural norms... enough said.
- 7) Don't worry if you are nervous, most of the students are more nervous than you are!
- 8) 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 😊.
- 9) 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.
- 10) Please do not exchange personal information during the interview process.
 - a. Don't attempt to determine the students' identity, school, county, etc. should occur today.
 - b. Even if well intended, this could be misunderstood as favoritism bias on the part of the judge.
- 11) Budget your time to **interview each assigned project for same amount of time**, about 10 minutes.
 - a. For team projects, interview each team member to find out how much they shared the work and resulting knowledge gained from completing their project.
- 12) For categories with a lot of projects, your Lead Judge may ask you to pick your top 2 or 3, to allow other judges to interview your top picks, as you interview their top picks as well, as quickly as possible.
- 13) After your interviews are complete, you'll return to the Judges area discuss and decide on your winners.
- 14) Last, but not least, Don't be Rude: **MUTE and DO NOT ANSWER Your PHONES During Interviews!** They have worked hard on their projects and deserve 10 minutes of your undivided attention.

Sample INTERVIEW Questions (Questions specifically about their Project's details are preferred.)

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

Afternoon Caucus (Conducted ONLY in the Judges Area, away from all Students.)

- 1) Your Lead Judge will facilitate your group to decide on your **1st Place** winner ASAP, no later than **2 PM**.
 - a. Your Category Lead Judge uses the '**DVSF First Place Category Winner**' Card, fills in the **Project Number and Title**, and gives it to your FAIR COORDINATORS.
 - b. This is so Medals Judges can interview every Category 1st Place winner before students leave at 4.
- 2) You will then decide on your **2nd Place**, **3rd Place**, and **Honorable Mentions** (No more than 10% of Category).
 - a. Your Category Lead Judge uses the '**Summary Sheet for General Awards**' sheet, fills in the corresponding **Project Numbers and Titles**, and gives it to your FAIR COORDINATORS.
- 3) Your group's final task will be to fill out one "**Judges Comment Form**" for each Project.
 - a. This is to provide as much Positive Feedback as possible, and Constructive Criticism, to aid the students in their future Science Project endeavors, which may include competing in May at ISEF (the International Science and Engineering Fair).
 - b. Try to have more Left-side (positive) checkmarks versus checkmarks on the Right-side (negative).
 - c. You are encouraged to write as many specific sentences of encouragement and improvement suggestions at the bottom of the form as you can.
 - d. Only ONE form is needed for each project from the entire judging group, not one per interview.
 - e. This is the ONLY written feedback the students receive from the judges, they NEVER see any of your notes, numbers, or other judging materials.
 - f. Your Category Lead Judge shall ensure all your Team's "**Judges Comment Forms**" are turned into your FAIR COORDINATORS, NOT directly to the students.
- 4) **Category Lead Judges should remain available until they are dismissed by their FAIR COORDINATORS**, since the Medals judges or Special Awards judges may have questions.
 - a. **Medals Judges** only interview the 1st place category winners for the Fair they're assigned to. They select the Gold, Silver, & Bronze winners in each grade to send to ISEF.
 - b. **Special Awards Judges** represent an organization seeking to award students based on criteria that may span several categories, and may want your expert opinion regarding your projects.
- 5) As you leave, you may pick up a printed copy of the Program of Entries in the DVSF Office.
- 6) Please do not discuss any DVSF Awards Results with anyone until AFTER the Thursday Awards Ceremony, as this is meant to be a pleasant surprise for the award winners.
- 7) Program of Entries and a Complete Winner's List will be posted on our website (www.DVSF.org) by Friday.

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.