# State Science Day
# Role of Judges

Thank you for your interest in judging at State Science Day. State Science Day would not be possible without your enthusiastic support of inquiry-based research and technological design. State Science Day judging will be virtual this year.

New for 2023, we are excited to be partnering with Engineering.com's ProjectBoard as the NEW platform for students to not only participate in the creative process of research, engineering design and entrepreneurial engagement, but to also host the competitions for these programs. We will now be able to archive student work for their future needs (scholarships, applications, interviews).

**THINGS TO KEEP IN MIND**:

- The 2023 District Science Day is an open event and did not require a local qualification – this means a lot of different levels of science.
- Only judge projects based on the judging criteria - **DO NOT JUDGE STUDENTS AGAINST OTHER STUDENTS.**
- State Science Day judging will be virtual this year via ProjectBoard. You will be able to evaluate the student projects based on the submission of a presentation video, a Quad board, an abstract and a final research report.
- Consider the student's grade level and be mindful of the curriculum that a typical elementary, junior high, and high school student has been exposed to.
- Students were provided with questions that judges would typically ask during an in-person science fair. The questions include:
    - What interests you about this topic and where did you get the idea for your project?
    - If you found the idea in published research, did you modify the idea and if so, how?
    - What question are you trying to answer and how did you go about answering it?
    - What did you learn about the science behind your project, both before and after the experiment?
    - What did you learn from the data?
    - If you had to do it again, what would you change? What improvements would you make?
    - What's next? Continue the project? Go on to a different topic?
    - Based upon what you have learned, how can this knowledge benefit society?

      **ADDITIONAL QUESTIONS FOR ENGINEERING DESIGN PROJECTS**
    - What design problem are you trying to address and how did you proceed?
    - What did you learn about the engineering and previous designs for your project before and during the process?
- Don't judge the quality of the video by its production value – you are to only evaluate the science. Use both the video and final report to fully understand the project
- Please consider first placing the student into a rated category (good, excellent, superior) in your notes and then score them numerically
- For students who reach a numeric score of 35 (Excellent), either turn this into a 36 (Superior) if it is deserving or make it a 33 (Excellent). The 35 score is a complete heartbreaker for students.

- **STUDENTS NEED COMMENTS FROM JUDGES**
    - Be both constructive and specific. Avoid writing "Nice job!" as your only comment. It may be kind, but it is not helpful. Offer specific feedback to support your compliment. It is next to impossible to offer "too much feedback".

- Be balanced. If you find a project that fell short of a Superior, explain why. Also offer compliments along with constructive criticism. As you know, science and design are games of failure. Don't make it worse. It is The Ohio Academy of Science's sincere desire that students are left wanting more! Also, we want students to challenge their curiosities and remain enthusiastic about the process.

**All students at local, District or State Science Days shall have an abstract and a written Final Report, which documents that the student has searched relevant literature, state a question and/or tested a hypothesis or technological design statement, collected and analyzed data, and drawn conclusions.**

**Judging Criteria for Individual and Team Projects**

| **Individual and Team Projects will be judged on the following criteria:** | **Max. Points** |
|---|---|
| Depth of Understanding (considering student's age and grade level) | 10 |
| Experimental or Engineering Design | 15 |
| Oral, Written & Visual Communication | 10 |
| Originality and Creativity | 05 |

Each criterion is rated with cumulative of 40 points being the maximum

- Superior range is 36-40 points
- Excellent range is 24-35 points
- Good range is 0-23 points

**Judging Ethics**

**Judges shall:**

- Let Science Day officials know if (1) you know the student, (2) the project is out of your area of expertise, or (3) there are language issues that may impair communication
- Keep in mind that the Mission of the Ohio Junior Academy of Science is to discover and foster interest in science, technology, engineering, and mathematics among students in grades 5-12
- Have no prior involvement with the participant or project
- Adhere to all Ohio Academy of Science Guidelines
- Judge students against CRITERIA not against other students
- Listen carefully to student's complete presentation
- Evaluate theoretical and applied projects without bias toward either
- Provide written, constructive criticism and suggestions for improvement