CNM SERC Judging Workshop
March 23, 2021

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Primary Goals of the Judging Process

- Give each exhibitor the experience of being interviewed and discussing their work with professional scientists or engineers
- Encouraging the exhibitors to continue their study of, and interest in, science, technology, engineering & math
- Selecting projects to be recognized with first, second, third, and honorable mention awards in each category
- Selecting projects to go to the State Science Fair
- Selecting our high school Finalists for the International Science and Engineering Fair (ISEF)
- Selecting the Junior Division (middle school) Grand Award Winners in life sciences and physical sciences
Who Are the Judges?

- Most are professional scientists and engineers with experience in the fields related to the category in which they are judging.
- Judges may also be non-professionals, graduate students, or others with appropriate education or experience in the field in which they are judging.
- All judges are volunteering their time and expertise.
- Judges receive some instructions before they start judging, but there is no opportunity to do any extensive judge training before the fair.
Judging Criteria and Processes

1. Research Question (scientific research) or Research Problem (engineering projects) – **10 Points Max**

2. Design and Methodology – **15 points Max**

3. Data Collection (scientific research) or Construction & Testing (engineering projects) – **20 Points Max**

4. Creativity – **20 Points Max**

5. Presentation (Display Board/Poster) – **10 Points Max**

6. Presentation (Interview) – **25 Points Max**

**Total Points: 100**
Judging Process

- This year, because of COVID, the Judging Process has been modified so that all students are interviewed by their category judges remotely using Zoom.

- Each student has an assigned time. It is very important that the student logs on before their assigned time slot.

- Junior Division (mid-school): Interviews are Wednesday morning (March 24) from 9:00 am to 12:00 pm.

- Senior Division (high school): Interviews are Thursday morning (March 25) from 9:00 am to 12:00 pm.

- Junior and Senior Divisions Grand Awards Interviews: Top overall placing students from Wednesday and Thursday will interview Friday morning for Grand Awards between 9:00 am-12:00 pm.
Judging Process: Interviews

- Students have **10-12 minutes** for the interview. (Note that Junior Engineering only has 10 minutes for the interview due to the number of projects in that category.)

- Students should be prepared to give a **2-3 minute overview** of their project.

- The remaining time is for questions from the judges.

- If the project is a continuation of a previous year’s project, the student should be able to explain what work is new for this year.
Judging Process: Scoring and Ranking

- The average scores from the judges are used as a **first cut** to determine the preliminary rankings of the project.

- The judges meet in a **virtual category caucus** to decide on the **final category rankings**.

- These **final rankings** consider **BOTH** the original raw average scores AND the results of the judges’ **caucus** meeting discussions.
“To-State” Qualifier Selection

After judging and interviewing the exhibitors, the judges have category caucus meetings in which they decide on the final rankings for projects in their category (1st, 2nd, 3rd) and how many projects they would like to recommend for ”To-State” slots.

The first-place award winner in each category at our fair can compete at the virtual state science fair.

In addition, other projects in each category may go to state science fair.

After the individual category caucus meetings, the judge chairs from each category meet in a final caucus to discuss which projects should advance “To-State”.

Judges chairs could give up a slot for use by another category or request an additional slot.
During the category caucus meetings, the judges in the Senior categories decide what projects to consider potential ISEF Finalists.

The judge chair for each category takes these recommendations to the Senior Caucus Meeting.

On Friday, the judge chairs re-interview all exhibitors recommended for ISEF consideration after which they caucus and come to a consensus about who they will name as ISEF finalists.

Those recommendations are provided to Research Challenge staff in ranked order.

The top four (4) projects are selected as our region’s representatives to the virtual Regeneron ISEF.

ISEF 2021 will be held virtually from May 16 to 21, 2021...
Judging interviews will actually begin earlier in May!!
The Roles of a Judge

**Evaluator**
The main role of a Judge is to evaluate the various projects and assign them a score.

**Facilitator**
Creating an open and positive atmosphere to allow the student to comfortably tell you about their project and the research that they did.

**Counselor**
Recommend what could have taken the project up to the next level of quality.

**Motivator**
Give the student encouragement and will motivate them to compete again.

**Role Model**
Provide a Good Experience for the Competitors

- Be genuine
- Let the students “show their stuff”
- Encourage conversation
- Avoid value judgments
- Offer opportunity for improvement
- End the interview on a positive note
What to Judges Typically Want to Learn During the Interview?

- Be prepared with a **2-to-3-minute summary of your project**.

- Some questions to think about:
  - Where did you get the idea for your project?
  - Who were your mentors, instructors, helpers, suppliers of lab space and/or equipment, etc.?
  - What are the exhibitor’s original contributions to the work? What came from references, literature, mentors, or coworkers?
What to Judges Typically Want to Learn During the Interview?

- If this is a multi-year project, what is new this year?
- What are the main and/or most important conclusions or results of the work?
- Do you have ideas or plans for future work on the topic?
- Be honest in discussion of your work. Almost all science and engineering advances are built on previous work by others and is done in collaboration with others.
QUESTIONS