



BEING A SCIENCE FAIR PARTICIPANT

Thank you for participating in the 2025 Longs Peak Science and Engineering Fair! By researching, preparing, and participating, you are working to become the next generation of STEM professionals. Your participation is instrumental in the success of the science fair; it's what we are all here for! Please remember every student here is interested in science and has tried their best and their effort deserves celebration at the fair. All students will be at different skill levels, from first-time participants to returning state participants. Please be respectful of their time, work, and materials!

This guide provides information about the fair, participant expectations, and what to expect on the day of the fair!

Please read through this guide and reach out to LPSEF@unco.edu with any questions you may have!

Once registered, please pay fair dues (\$35 for each participant) here: <https://unco.estore.flywire.com/products/longs-peak-science-and-engineering-fair-74651>

DIRECTOR CONTACT INFORMATION

Dr. Victoria Duncan
LPSEF Director and Assistant Director of the MAST Institute
Office Phone: 970-351-3622
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GENERAL FAIR INFO

*TIMELINE

When: February 13, 2025

Where: Multipurpose Room, Campus Commons, University of Northern Colorado

Schedule:

- **7:00-8:30 AM** **Check-in and Poster Set-up**
- **8:30 AM** **Welcome and Opening remarks by LPSEF Director**
- **8:30 AM-12:00 PM** **Judging of all categories**
- **12:00-2:00 PM** **Lunch (provided in registration fee) and Award Determination**
- **2:00-2:30 PM** **Awards Ceremony**
- **2:30-3:00 PM** **Briefing with State Qualified Participants**

*Timeline of events is tentative and subject to change. However, the date and location of the fair are definite. We will send all final updates to the event schedule to participants closer to the fair.

WHAT TO BRING WITH YOU?

- Project poster board (set up on trifold poster board)
- Project notebook, including the following:
 - Project abstract
 - Signed Human Consent Forms (if applicable)
- An excited and fun attitude, ready to present 😊

PARTICIPANT NORMS AND EXPECTATIONS

As a participant, you are expected to participate fully in the fair and be an engaged member of the LPSEF community. We want you to have fun, present your work, and be safe; by joining us, you agree to adhere to the norms and expectations outlined in this guide.

We all want to have an enjoyable fair experience - please adhere to the following fair norms:

- respect others (including other participants, judges, and staff)
- present your own work and acknowledge when using the work of others
- stay in the designated fair area (do not wander around campus without supervising adult)
- be mindful of time and the fair schedule
- keep an open mind (your will receive feedback from judges – use this as a tool to grow and improve!)

There are some unacceptable behaviors that will lead to immediate dismissal from the fair. As appropriate, the UNC police will also be notified. Example behaviors include:

- the possession or use of a weapon (including knives or guns) or any illegal substance (including alcohol, tobacco, and marijuana)
- harassment (emotional, physical, or sexual)

- violence
- theft
- destruction of property
- sexual activity
- disrespect to staff or peers, and violation of the boundary/buddy system are examples of behaviors that will necessitate conversations with the Director, and, if the behaviors are persistent, may lead to dismissal from the fair.

*Fees will not be refunded if participants choose to leave or are dismissed from the fair, and supervising adults will be required to organize transportation from campus.

PROJECT EVALUATION GUIDELINES

The guidelines used to evaluate projects at the LPSEF align with the State-level standards. This sets you up for success as you move on to higher levels of competition.

EVALUATION CRITERIA

The six criteria for evaluation are detailed below. Each criterion will be evaluated on a 10-point scale, with 1 being the lowest and 10 being the highest.

POINT SCALE

- 1-4 Developing
- 5-6 Proficient
- 7-8 Advanced
- 9-10 Exemplary

1) RESEARCH QUESTION

- Question/Problem is clearly stated
- Question was sufficiently limited to allow a solution to be found
- Question is testable using the scientific research process
- Originality in question asked
- Research addresses a meaningful problem

2) DESIGN AND METHODOLOGY

- A procedural plan was in place for obtaining a solution/answer
- Project demonstrates a well-designed plan and method for data collection
- Variables were clearly recognized and defined
- If controls were necessary, the student recognized the need and used them correctly
- Student(s) had the required laboratory, computation, observational, and design skills to obtain supporting data
- The purpose was carried out to completion within the scope of the original intent

3) EXECUTION

- There was adequate data to support the conclusions
- There was adequate assistance from parents, teachers, scientists, etc.
- The time spent on the project was appropriate
- Project contains sufficient data collected to provide evidence to support the interpretation
- Student made recommendations for future research

4) CREATIVITY

- The project shows creative ability and originality in the questions asked, the approach to solving the problem, the analysis of data, or the interpretation of the data
- The student's findings help to answer their question in an original way
- The student's findings promote an efficient and reliable method for solving a problem

5) POSTER

- Student demonstrates an understanding of the project, which is reflected in their written materials
- Important phases of the project are presented in a logical and orderly manner
- Data is clearly and correctly presented
- Results and conclusions are clearly presented
- Graphics, legends, and supporting documentation are clearly presented

6) INTERVIEW

- Student exhibits clear, concise, thoughtful responses to questions
- Student demonstrates an understanding of the interpretation and limitations of the results and conclusions

GUIDE FOR BEING INTERVIEWED

The interview allows you) to a) present your work in your own way and b) permits the judges to, by asking specific questions, review the work done and determine your understanding of the field.

All participants should be able to answer variations of the following questions:

- How did you come up with the idea for this project?
- What did you learn from your background search?
- How did you build the apparatus? How long did it take?
- How much time (many days) did it take to run the experiments/collect each data point?
- How many times did you run the experiment with each configuration?
- How many experiment runs are represented by each data point on the chart?
- Did you take all data (run the experiment) under the same conditions (e.g., at the same temperature, time of day, lighting conditions)?
- How does your apparatus (equipment, instrument) work?

- What do you mean by (terminology or jargon used by the student)?
- How can your experiment be applied to everyday life or industry?
- Were there any books that helped you do your analysis?
- When did you start this project? or, How much of the work did you do this year? (Some students bring last year's winning project back, with only a few enhancements.)
- What is the next experiment to do in continuing this study?
- Are there any areas we have not covered that you feel are important?
- What is something you learned during this project?
- Why is your project/experiment important?
- What do you think would have happened if...?

Engaging in the Discussion

- Judges might be intimidating, but remember, you've already put in the hard work to be here!
- Here are some strategies you can focus on to feel less nervous and to facilitate a better discussion:
 - Practice before the day of the science fair
 - Use a tone of voice that indicates interest, enthusiasm, and confidence.
 - Include pauses and breaths in your presentation
 - Make eye contact with the judge(s)
 - Smile
 - Most importantly – be yourself and show your personality!
- While being judged, you (the participant) should be doing most of the talking.
 - But be sure to allow opportunities for the judges to ask questions while you talk!

Receiving Feedback

- Judges will provide written feedback that the director will send after the fair.
- Remember, this feedback is to help you as you move forward with the science fair.

Good luck, and thank you for your hard work as a scientist!

REGISTRATION & WAIVERS

Please register for LPSEF with your parent/guardian, sign the waiver indicating that you have read, acknowledge, and agree to the policies and procedures for participation in the Longs Peak Science and Engineering Fair, and sign other required waivers. If you have any questions or concerns regarding the procedures outlined in this manual or the program, please contact LPSEF Director, Dr. Victoria Duncan (LPSEF@unco.edu).