

Innovation Expo Participant Manual

PreK-12

Loveland High School (9 am - 12 pm) Saturday, February 1st, 2025

LCSD Science and Innovation Expo

Loveland High School Saturday, February 1st, 2025

What is the Innovation Expo?

Calling all Preschool through 12th-grade students in the Loveland City School District! Get ready to embark on an exhilarating journey at the **LOVELAND INNOVATION EXPO!** This event is set to spark creativity and exploration across various subjects including science, engineering, art, and craftsmanship.

The Innovation Expo serves as a platform for students to unveil their DIY projects and receive valuable feedback. Innovation projects are not scored, but you will be provided with written feedback. Whether you're a crafter, tinkerer, hobbyist, engineer, tech aficionado, or science enthusiast, this is your chance to showcase your passion for creating, inventing, and exploring!

About the Event:

What is an innovation project? Innovation projects are creative projects thay may incorporate arts, sciences, and design thinking. Essentially, you identify a problem and use your imagination to develop a solution. The possibilities are limitless!

When do I set up my project? Projects must be set up between 3:30 p.m. and 5:30 p.m. on Friday, January 31st, 2025, at Loveland High School. Students must be present during setup to confirm judging cards and table locations. Important components can be brought on Saturday morning. Loveland High School opens at 8 am, and students should arrive by 8:45 a.m. as judging starts promptly at 9 am.

How will I set up my project at the event? Your project space will be in the Loveland High School gym, with additional room available in the auxiliary gym if needed. Please bring all necessary materials for your project as the district will not provide any materials other than a table unless additional materials requested and approved to be provided by the district ahead of time.

When is the Innovation Expo? Students demonstrations will be from 9 a.m. -12 p.m. on Saturday, February 1st, 2025. Judging will begin at the youngest grades. Once a student's project has been evaluated two or more times, they are welcome to stay for the duration of the expo, until noon, but are also permitted to leave at that time. Students will receive verbal and written feedback about their projects, but no numerical score will be given. The goal is to celebrate and talk about the awesome learning that happened!

How is my project being judged? Projects will be judged with a written feedback document, which will share with you feedback around what the judge liked about your project, and any areas to consider or next steps with your project.

Getting Started on Your Project:

NOTE: An Innovation Project may include these stages below, but not required. This is truly an open-ended opportunity to showcase your creations and talents. For a more guided process, here is a template you can use that helps with how you may brainstorm and create a project that solves a problem:

- **1. Look for Inspiration:** First, find a question that really interests you. Observe your surroundings. Does something make you wonder? Do you have empathy about a situation? Do you have an idea to create? Is there a hobby or interest you want to explore and share?
- **2. Gain Knowledge:** Research extensively about your idea. Visit libraries, read books related to your concept, and explore online resources to understand existing connections and previous work done in the field.

To explore potential ideas for a project, here are a few websites:

- Instructables.com
- Innovation Convention Ideas for Kids
- Scratch (learn/create a coding project)
- Examples of past projects: rube goldberg machines, remote control boat converted to be powered with hydrogen powered fuel cells, online coding game creation with scratch.com, code.org, etc., a solution to picking up kids toys easier (students used a shop vac with paper towel tubes connected to it as the hose and items would feed into an empty pretzel bucket to easily open the lid to access the kids toys that were vacuumed), automata, crafts, and more!
- **3. Brainstorm and Ideate:** Welcome all ideas without limitations during this stage. Encourage 'wild' ideas and aim for a large quantity. Sketch or document your thoughts to explore various solutions and generate innovative concepts.
- **4. Allocate Time for Prototyping:** Create a prototype of your idea. Embrace the value of struggle, failure, and hands-on learning. Adapt and improve your design based on practical experience and insights gained during the process.
- **5. Test and Gather Feedback:** Experiment with your prototype personally or invite others to test it. Collect feedback and opinions from users and stakeholders. Iterate through the design thinking process based on received feedback until you achieve satisfactory results.
- **6. Share Your Ideas and Prototypes:** Determine how you will present your idea. Will it be interactive, presented on a storyboard, or through digital tools? Share the narrative behind your creation process and what motivated your innovation journey.

Innovation Expo Project Drop Off and Event Arrival Times:

Please plan to have your Innovation project set up on Friday, January 31st, 2025, which is the night before the event. You can drop your project off between 3-6 pm at Loveland High School- there will be representatives outside of the gym to direct you to your table to drop off your project.

Due to the size of the Expo, it will not be possible to set up at another time. Most of the innovation projects will be located in the Loveland High School gym, and overflow projects may be located in the auxiliary gym.

If you or your student have not received notification of their table assignment one week before the expo, please contact innovation@lovelandschools.org

All students must be present from 8:45 a.m. to 12 p.m. when their Innovation Projects are being demonstrated. However, students are encouraged to take a break from demonstrating their own innovation to tour/interact with projects that others students are sharing. Exhibits must be removed between 12:00 p.m.to 12:30 p.m on Saturday, February 1st. Any exhibits not removed by that time will be discarded.

Project Restrictions:

No student may submit a project that uses any of the following:

- explosives
- drugs (prescription, illegal)
- alcohol
- weapons (firearms, knives, tasers, etc.)
- any type of microorganism
- potentially hazardous chemical
- nut products

The following items may be used in projects, but <u>may not</u> be brought to the fair:

- potential allergens (product containing nuts, including soaps, creams, latex, etc.)
- live animals
- over-the-counter medication(s)
- potentially infectious agents (including Petri dishes with growth)
- flammable materials
- hazardous biological agents (bacteria, viruses, viroid, prions, rickettsia, fungi, parasites, recombinant DNA (rDNA) technologies, human /animal fresh/frozen tissues, blood, or body fluids).

Parent Information

Parents play a supportive role in helping students acquire the necessary skills for their projects while ensuring that the students themselves do the work. For instance, you might assist your child in learning how to safely use tools by guiding them through practice sessions. It's crucial for parents to supervise these activities to ensure safety.

Parents can also encourage their children to develop an Innovation Project by fostering open-ended questioning. Creating a project collaboratively with your child is also encouraged. Your primary role in this process is to offer support; the child's role is to lead as the creator and developer.

- 1. Encourage your child to explore questions until they find one that truly sparks their curiosity.
- 2. Support your child in making observations.
- 3. Assist in creating a timeline for completing the project.
- 4. Be prepared to help find free materials at home or accompany your child to purchase affordable items for their project, with sensible guidelines in place.
- 5. Encourage resilience through learning from setbacks and revising their ideas.