



## Cedar Trails PTSA 2022-2023 STEM Fair

May 19th, 2023 5PM-7PM



**Calling for all Cedar Trails Wolves!** We are excited to announce our first annual STEM FAIR at Cedar Trails! All students are encouraged to participate by working on a STEM (Science, Technology, Engineer, Math) related project alone or with your team and displaying it proudly at the STEM Fair.

The goal of the STEM fair is to encourage students to explore science in a fun, relaxing environment and to share what they learn with their peers, teachers and parents. There will be interactive tables and displays from staff and outside organizations to explore, so we encourage students and families to bring their curiosity!

Our science fair is non-competitive, as our goal is to encourage scientific exploration and discovery and promote a deep lifelong passion for science. Just bring your project to display and visit exciting STEM demos! Participants do not have to stand by their projects but they can if they would like to. All participants will receive a certificate and a ribbon.

### **Project Registration:**

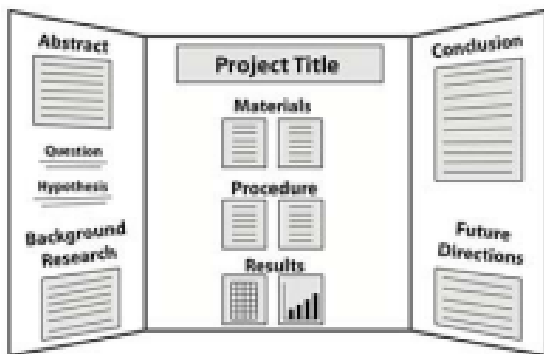
Visit <https://cedartrailsptsa.ourschoolpages.com/> or [click here](#) to register. Registration is open now through Wed May 18th. All students wishing to display a project at the Science Fair must register. Students may work on their project independently, or with a partner at Cedar Trails. If you do work with someone else, both participants must

register separately.

### **STEM Fair Important Information:**

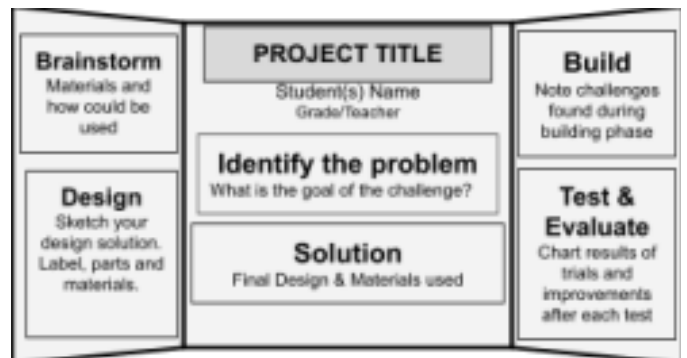
- Projects should be student-driven. As much as possible, project ideas and effort should come from the students. Parents should use their best judgment in deciding when to get involved, such as when there is a potential safety issue.
- For security reasons, valuable property including computers will NOT be allowed and cannot be the format for display.
- Do NOT display fragile or valuable equipment that could get lost, stolen or damaged. If you do NOT want people to touch your project, please include a “Do Not Touch” sign or use a sealed container.
- No animals, toxic, hazardous or flammable materials are allowed.
- Children need to be supervised all the time as this is not a drop off event.
- Volunteers are needed. Click here to volunteer: [Stem Fair 2023 Volunteer Form](#)

**STEM Fair Project Guidelines:** A tri-fold board is a great way to present your STEM Fair project in a clear and organized manner. Displays need to stand up on their own. Displays should be self-explanatory, and students do NOT need to stand by their display.



Here are some tips on how to create a tri-fold board for a STEM Fair project:

1. Start with a sturdy tri-fold board that is large enough to display all of your materials.
2. Choose a color scheme and design that complements your project. You can use markers, stickers, and other embellishments to create an eye-catching display.
3. Plan the layout of your board. Divide it into three equal sections and use one section for each of the following: Introduction, Methods, Results and Conclusion.
4. In the introduction section, include a brief summary of your project, including the question you investigated, your hypothesis, and the importance of your research.
5. In the methods section, describe the procedures you used to conduct your



research. Include any diagrams or illustrations that help to explain your methods.

6. In the results section, present your findings. Use charts, graphs, and other visual aids to help convey your results.
7. In the conclusion section, summarize your project and discuss the implications of your research. You can also suggest areas for further investigation.

Remember, the goal of a tri-fold board is to communicate your project in a clear and concise manner, so keep your text brief and use visual aids to convey your message.

### **STEM project ideas:**

1. The Water Cycle: Investigate the stages of the water cycle and create a model to demonstrate each stage.
2. Cleaning Oil Spills: In this activity you mix oil and water in a container and add some feathers to represent marine life. Then take the role of an engineering company tasked with cleanup duty, using various materials like sponges, paper towels or spoons to remove the oil from the water and feathers. The goal is to separate the oil, placing it into another container without removing too much water or harming any marine animals. How does an oil spill affect an environment and the animals in it, and how can these instances be prevented?
3. Solar Oven: Learn about the value of solar energy by building an oven that cooks food without electricity. Enjoy your tasty treats while discussing ways we can harness the energy of the sun, and why alternative energy sources are important.
4. Build a Bird Nest: Birds build incredibly intricate nests from materials they find in the wild. Take a nature walk to gather materials, then see if you can build a sturdy, comfy nest of your own!
5. Animal Adaptations: Choose an animal and research how its physical and behavioral adaptations help it survive in its environment.
6. Plant Growth: Investigate the factors that affect plant growth, such as sunlight, water, and soil, and create a model to demonstrate your findings.
7. The Human Body: Investigate the different systems of the human body, such as the digestive or respiratory system, and create a model to demonstrate how they work.
8. Water Quality: Test your water to see how clean it really is! Then head out to test other types of water. Discover what's in the water in your local streams, ponds, and puddles. Student water testing kits are readily available online.
9. Robotics: Build a simple robot and program it to perform a task, such as following a

line or picking up an object.

10. Plastic Bags Plastic bags are difficult to recycle. Can you upcycle it to create something new and useful?

You can choose the above topics but not limited to. The key to a STEM fair project is to choose a topic that interests you and to approach it with curiosity and enthusiasm.

For questions, please contact [events@cedartrailsptsa.org](mailto:events@cedartrailsptsa.org), [megandjoel@gmail.com](mailto:megandjoel@gmail.com), [madelinehile@gmail.com](mailto:madelinehile@gmail.com)

**Good luck with your project!**