

Challenger Science Fair Project Entry Form

Join the Challenger Science Fair for a non-competitive event where **every participated student can get a prize!** All themes are welcome! Submit projects that are fun and educational. For guidance, please check the next page or contact **Challenger PTA** at challenger.comets.pta@gmail.com for advice or any special arrangements you may need. **Students interested in participating, please complete and return this form to your teacher by Friday, January 12, 2024, or sign up here <https://forms.gle/YiXPiBGeTLvNZHCG7>. Each student or team can enter multiple projects. Please submit a separate entry form for each project.**

Student Name (can be multiple if this is a team work):

Grade: _____ Teacher: _____

Parent's Home Phone: _____ E-Mail: _____

Project Title: _____

Project Short Statement (describe in brief details about your project):

I will need access to an electrical outlet

I will require special arrangements and/or set up (i.e. oversize, etc.)

*If you discover these apply to your entry after turning in our registration form, please contact us.

NOTE: To encourage students to participate, you can directly purchase the display board from us for \$5 each. Contact us earlier (Hui Li: hui3026@gmail.com) if you want one.

**** Parents:** This is a non-competitive fair. Every participating student will be honored with an award for their committed involvement. Science fair projects are at-home activities for this event. It is a student-driven project, and parents are encouraged to participate in an advisory role. We also welcome parent volunteers to host a station to share the scientific educational toys they have at home with the students at school. Additionally, parents can volunteer to host stations with the STEM activities we have prepared. If you are interested in participating as a parent volunteer, sign up here!



<https://www.signupgenius.com/go/10C0E4FADA62DA3FDC61-46551378-science#/>

Don't forget also to mark your calendars for **Science Fair STEM Night on January 25th, 2024**

Event: Science Fair Family Night

Who: All students of Challenger Elementary School, along with their families and friends, are welcome to attend, regardless of their participation in the science projects

When: January 25, 6:00–8:00 PM (Food trucks available from 5:30 PM outside the school)

Where: Challenger Elementary School Multi-Purpose Room

What: Enjoy food trucks, student science project displays, parent-led stations with hands-on STEM toys, high school robotics teams, local STEM groups, and more live science demonstrations!

Science Fair Rules

Experiment Location: All experiments should be conducted at home, not at school.

Project Topics: Projects on any topic are welcome, as long as they adhere to the fair's guidelines.

Prohibited Items: No live animals or hazardous chemicals may be used in your project.

***Special Notes regarding Using Animals:** While live animals are generally prohibited in the project, exceptions can be made if they are not harmed in any way and are treated ethically. This includes all living creatures like insects, worms, and house pets. However, please do not bring live animals to school; instead, use photographs in your display.

Items Required Supervision: Projects involving batteries, matches, or lighters must receive parental approval, be supervised by a parent, and be conducted at home.

Display Requirements: Each project must be labeled with the student's name, grade, and teacher's name. Upper grade students are encouraged to present their experiments with detailed sections, including motivation, hypothesis, materials and methods, data, results, and conclusions. Lower grade students are not required to present a written report and may use drawings to illustrate their ideas.

Parental Involvement: Parents are encouraged to advise, maintaining the focus on student-driven projects. Projects can be individual or team-led.

Experiment Demonstration: Conduct experiments at home and include photos in your display. You are allowed to put models in front of your display only if they are safe for school use. No dangerous chemicals or fire are allowed at school. Ensure all battery-operated projects are securely assembled, and batteries are disconnected before and after demonstrations. Contact us with any questions.

Display Boards: Can be purchased at local craft or office supply stores (i.e. Michael's, Fred Meyer, and Target). You also can directly purchase the display board from us for \$5 each. Contact us earlier (Hui Li: hui3026@gmail.com) if you want one.

Fair Registration & Attendance: Register for the project by January 12, and attend our Science Night on January 25 from 6:00 to 8:00 PM in the Challenger Multi-Purpose Room. All students from Challenger Elementary School, along with their families and friends, are invited for an exciting evening of scientific exploration. The evening will feature student projects, live science demonstrations, hands-on STEM activities, and high school robotics!



Photo from classroomclipart.com

It's Easy to Do a Science Fair Project!

1. Motivation (You can start from asking why):

Think of an idea you'd like to put to the test



2. Hypothesis (What is your prediction?):

Predict what you think will happen (It doesn't matter if you're right!)



3. Experiment Materials and Methods (Describe your test methods and steps?):

Find a scientific way to test It (usually one control & one variable)



4. Data and Result (What did you find from your test?):

Display your results using numbers, figures, pictures, or written descriptions



5. Conclusion and future study (What can you conclude and any other thought?):

Compare your prediction with your results (What did you learn? What would you do differently next time?)

Make Sure It Is Fun!



Here are some example ideas for very simple projects

- Take two different size/shape balls and drop them from a height. What happens?
- Test two different designs of paper airplanes. Which flies better?
- Grow two plants in different light or water conditions. Which grows better?
- Put a bottle of water and a bottle of salt water in the freezer. Which freezes first?
- Put Vegetable Oil, Water, and another liquid in a clear bottle. How do they layer themselves?
- Make a pile of small hardware (nails, coins, rubber bands, etc.) on the table. Try and pick them up with a magnet. Which items are attracted to the magnet?

You can also find ideas on the internet or in library books, e.g., <https://www.exploratorium.edu/snacks/snacks-by-subject>



Your project doesn't have to be just an experiment; it can also be an invention. Use a similar method or flowchart to show how you developed your idea, designed it, and brought it to life.

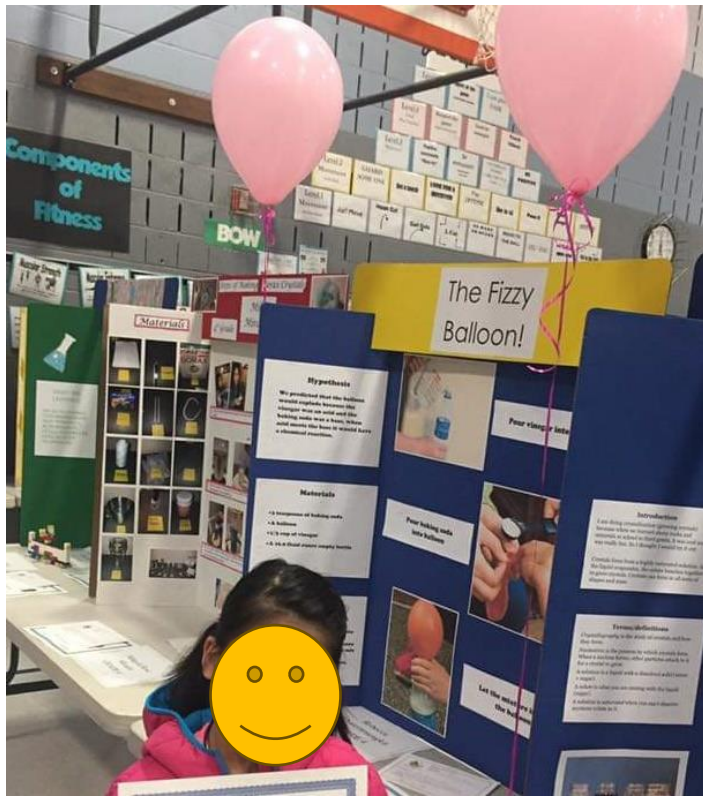


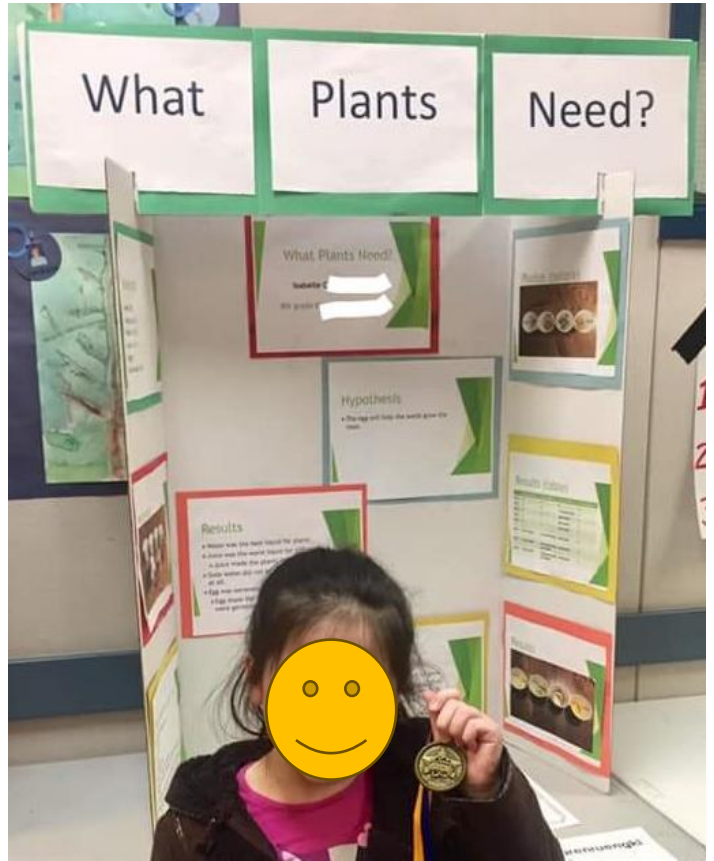
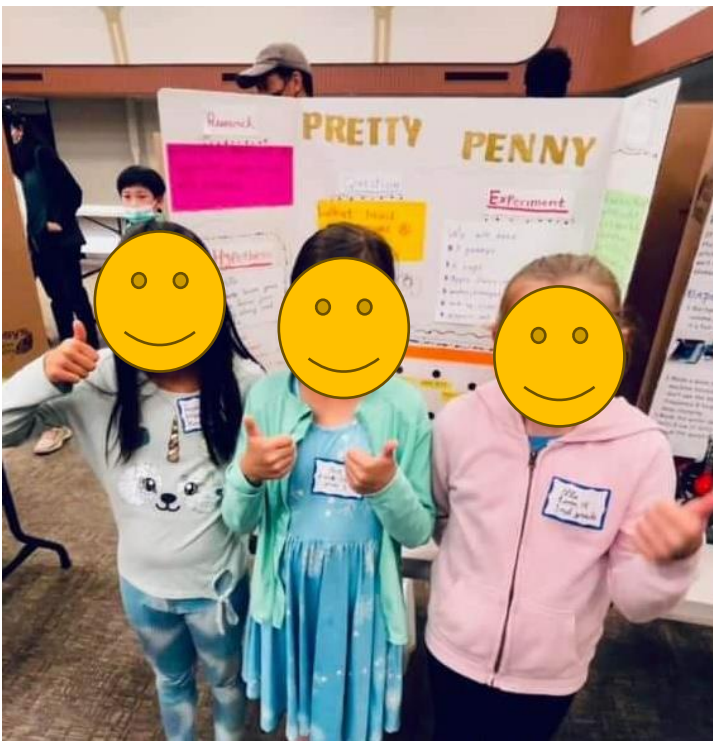
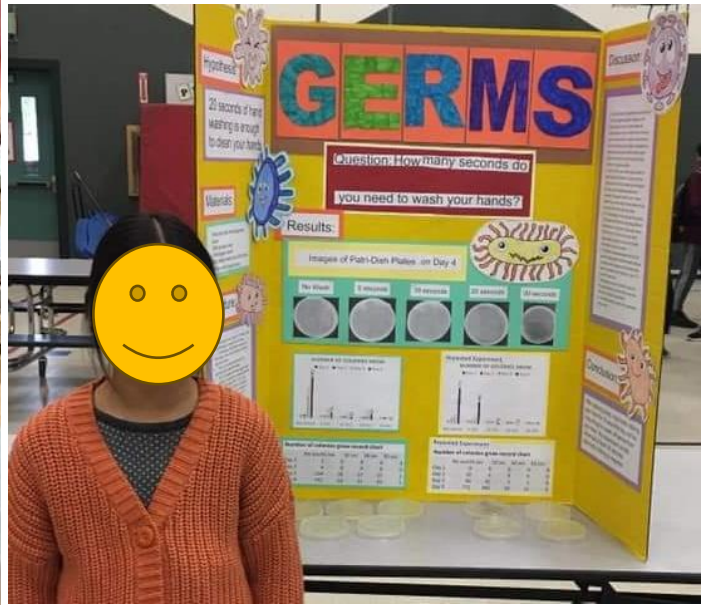
How to Do a Science Fair Project? (Watch this video showing how to design your presentation on a tri-fold board):

<https://www.youtube.com/watch?app=desktop&v=4KVTLT6QeTE>



Still need ideas for the displaying board? Here are some real examples:





Remember, all the experiments should be conducted at home, not at school. However, you're welcome to bring a model to display alongside your presentation board, as long as it's safe!

Q & A

Do I have to do a project based on the theme?

No. Science Fair projects can be about anything you'd like as long as the rules and guidelines are followed.

Can you provide some instructions for the science fair presentation?

Watch this simple video for how to design your presentation on a tri-fold board:

<https://www.youtube.com/watch?app=desktop&v=4KVTLT6QeTE>

Experiments are really to be done at home. We encourage everyone to include pictures of your experiment in your display and/or report. For example, if your project involves a rocket, take pictures of your experiment and detail your results on your display. You may bring in the rocket to display in front of your board but it may not be used in the school. You are allowed to put models in front of your display only if they are safe for school use. No dangerous chemicals or fire are allowed at school. Ensure all battery-operated projects are securely assembled, and batteries are disconnected before and after demonstrations. Each project must be labeled with the student's name, grade, and teacher's name. Upper grade students are encouraged to present their experiments with detailed sections, including motivation, hypothesis, materials and methods, data, results, and conclusions. Lower grade students are not required to present a written report and can use drawings to illustrate their ideas.

Can I use animals in my project?

The official rules say that no live animals can be used. However, we will amend this to say that they can be used as long as they cannot be hurt in any way. "Animals" include anything living (insects, worms, house pets, etc.). Also, animals cannot be brought to school with your experiment – take pictures, but please do not bring in a sample.

Will I demonstrate my experiment for the judges?

There will be no judges for the Science Fair this year. Instead, every participating student will receive a prize in recognition of their efforts and contribution to the fair! During the Science Fair, there will be a designated time when you may be asked to stand beside your presentation. This will be your opportunity to show and tell your experiments to the guests. Attendees will be encouraged to ask questions or interact with your presentation, allowing for a more engaging and educational experience for everyone involved.

Where can I get a display board?

Display tri-fold boards are sold at most local stores with a craft or office product section. Michael's, Fred Meyer, and Target are some area stores that usually carry these products. You also can directly purchase the display board from us for \$5 each. Contact us earlier (Hui Li: hui3026@gmail.com) if you want one.

What is the deadline for the entry form and for the presentation board?

Entry forms should be submitted to teachers or via email by January 12, 2024. This will help us plan for the necessary prizes and tables. Following entry submission, please ensure that display boards are turned in by January 24, 2024, which is the day before the Science Fair.

Can I still attend the Science Fair if I won't participate in a project?

Of course! All Challenger Elementary School students, as well as their families and friends, are welcome to attend Science Night on January 25, 2024, from 6:00 to 8:00 PM in the Multi-Purpose Room, whether they have entered a project or not. Join us for a night filled with scientific discovery featuring student projects, interactive science demonstrations, hands-on STEM activities, and a high school robotics showcase!

We're also calling for parent volunteers, or middle/high school students, to assist with STEM activity tables. Interested in contributing to a night of fun and learning? Sign up here:

<https://www.signupgenius.com/go/10C0E4FADA62DA3FDC61-46551378-science#/>