

2025 Homeschool Science Fair

INFORMATIONAL PACKET

Red Oak Community School is proud to host you at our first Homeschool Science Fair. Questions can be directed to info@redoakcommunityschool.org

Why a Science Fair?

The goal of the Homeschool Science Fair is for students to have fun with science and at Red Oak, we love science! We understand that even in elementary school, science should be valued as much as "core" subjects. Science is engaging, fun and contributes to a well-rounded education.

Our students present their science projects to their classmates during the school year, so we thought a science fair could provide an extra opportunity for our homeschool students as well as homeschoolers in the wide central Ohio community to present their work!

For students to learn problem solving, the best practice called "Scientific Method" is used. You can see information on the Scientific Method on https://aoneroomschoolhouse.com/blog

Science Fair Information

- Registration: Please register by submitting a form here- www.jovial.org/rocs/hello. REGISTRATION OPENS ON April 11th and CLOSES on May 2nd, 2024.
- 2. **Attend Information Session:** May 2nd at Red Oak Community School, 4:00-5:00pm. Meet with our science educator, Bethany Filipow. Get some guidance and feedback with possible ideas, methods, etc. Ask all the questions!
- 3. **Choose a topic:** A simple, well researched question with a nice display is key to a good project. Parental help is needed for direction and encouragement. However, learning with the child will be enhanced if they participate fully in the project.
- 4. **Practice with a friend**: We will provide a peer review form so that students can practice presenting their findings before the science fair.
- 5. **Display the project:** Present your project on a display board with relevant information. Each student who participates is to include the elements of the scientific method on their board.
- 6. **Format:** The format of the science fair at Red Oak is judged with awards given. Each participant will be given 5-7 minutes to present their project to 2-3 judges.

Tentative schedule -

4:00-5:00pm - Student presentations 5:00-5:30pm - Judging and dinner/play break 5:30-6:00pm - Awards

Each student will receive a certificate of commendation at the end of the fair & a Red Oak water bottle!

- 7. If you are not able to attend at the last minute, please send a text to the Science Fair organizers at 614-362-9776 and let them know if you would like to participate by one of the following ways- a) Someone else can bring your board and set it up. It will be judged and your certificate and/or award will be mailed to you. b) Zoom call into the judges to present your project and board. Your certificate and/or award will be mailed to you.
- 8. Each student will be assigned their own 6' table. This will provide distance between each participant.

Science Fair Rules

- 1. Each project will be classified by grade level.
- 2. Each student may enter only one project. There will not be duplicate projects. You will be notified if this becomes the case with your student.
- 3. Individual projects are encouraged. However, students can work with a maximum of one partner on their science fair project. Both students should register separately with the same project title. Please mention the name of your partner on your registration form.
- 4. Parents and other responsible adults may advise the students when doing the project. However, parents should allow the students to do the actual work. The best projects are the simple ones, where students can demonstrate command of the subject matter and the experiment.
- 5. The three-sided display boards (no larger than 36x48) are available through many stores and online retailers.
- 6. Electrical switches and cords needed for exhibits must be in good working condition.
- 7. Please avoid the display of expensive or fragile items. Valuable items essential to the project should be simulated or photographed.
- 8. Red Oak Community School assumes no liability for loss or damage to exhibits. All students must agree to be careful and respectful of the work of student scientists when viewing the Fair exhibits.
- 9. NO harmful animal or human experiments are ALLOWED. Parents must carefully monitor any experiment that is performed as a part of a project.
- 10. Students should bring all the material required for the project.
- 11. A space of about 6' wide will be provided for the display board, experiment/model, and any record book.
- 12. NO OPEN FLAMES, or LIVE ANIMALS, or DRY ICE are allowed to be displayed on the day of the Science Fair. You may take pictures or take a video and display it at the fair.
- 13. We have limited electrical outlets. So please mention in the form if you need one. Also, mention any other special needs for the project on the form.

Getting Started

Choose a Topic

Choose a topic that you find interesting! You should be excited about your project!!! Start with a question related to hobby, travel, or surroundings that you have been wondering about, like...... How does plant a grow? How is a rainbow formed? Why does a cut apple change color?

Here is a great list of project ideas from the Science and Engineering Fair of Metro Detroit.

Science Buddies is another great resource.

Choose a Testable Question

Choose one testable question that will narrow the focus of your investigation. This will be the question that you are trying to answer with your project.

Here is a list of example testable questions from the <u>Science and Engineering Fair of Metro Detroit</u>.

Research

Once you have a question to work on, do some research. You can get information from books, encyclopedias, pamphlets, television, field trips, interviews, or the Internet. Look for information from several different sources. Become an expert on your topic!

Plan Ahead

Sometimes science experiments don't work. If you plan and conduct your experiment well in advance of the science fair and your experiment does not work, you will have an opportunity to retry or change your experiment. So, start early.

What if my experiment fails?

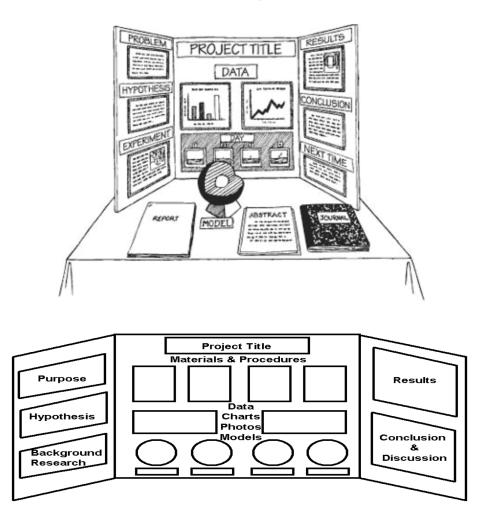
This happens sometimes, but don't worry, you should still present your work. Present what you did on your display board. In the conclusion section of your presentation, suggest ways to investigate why your experiment did not work. Experimental failure is common for scientists who usually repeat the experiment and if the experiment still does not work, they ask their question in a different way or redesign the way the experiment was conducted

Displaying the Project

Your project board display is a particularly important part of your project since it explains to others what you have done and learned. The quality of your work will be judged on your written display as well as your ability to explain your ideas, methods, and what you have learned.

Displaying materials in front of your display board

If you have made a model, a demonstration, or a collection, these should be displayed in front of your poster board, unless they are fragile or valuable. In those cases, please mount photographs of your model, invention, demonstration, or collection on your board. If you must bring fragile or valuable items to the Fair, ensure that you do not leave your project unattended.



Scientific Method



Ask a Question

What are you curious about? What do you want to know?



Do Some Research

Do some research to find out more information.



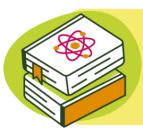
Make a Hypothesis

Based on what you know, what do you think will happen?



Experiment Time!

Gather some data by doing an experiment.



Come to a Conclusion

What did you find out? Come to a conclusion based on what you have learned.

