

# OCEANetwork Virtual Homeschool Science Fair Guidelines

*UPDATED 4/26 to clarify optional journals and high school research paper requirement.*

**SAFETY FIRST:** Many of these activities may require protective equipment such as gloves, goggles or respirators. Be sure to seek adult approval and/or assistance before starting a project.

Important Dates:

- May 24: Deadline for submission of the science fair project
- May 27: Science fair videos go live for public viewing and evaluation
- June 4: A project is selected from each age group. Prizes will be sent out the following week!

## Who can participate in the OCEANetwork Virtual Homeschool Science Fair?

All grade levels are welcome. The science fair is open to students in Oregon who have been educated at home in an independent homeschool in accordance with state homeschool laws. Students who live out of state or who are enrolled in a public school, private school, or charter school are not eligible to participate.

## What should each project presentation include?

Science is the study of God's creation. Through it, we can learn more about God's character. He is a God of order, creativity, goodness, and strength. In studying His creation, we have the opportunity to see the fullness of God and how "all things hold together in Him." (Colossians 1:17) We can consider the rules and laws God has put in place to govern our world. See Romans 1:20.

As you are working on your project, we encourage you to consider how your chosen topic and/or project results help you know and love the Lord. Although it's not required, we'd love to see you incorporate this perspective in your presentation. [Here's an article](#) to help you get that conversation going.

Note that, in order to be included in the science fair, **all presentations must be appropriate for all ages to view and must not violate biblical principles**. If you are unsure if your project topic is suitable, please email [meyers@oceanetwork.com](mailto:meyers@oceanetwork.com) to discuss.

Your science fair project must include a video presentation (5 minutes or less) that includes a visual aid, such as a poster, trifold board, slide show, objects, etc. Although footage of the experiments themselves is not required, you may add them if you wish.

High school students are required to submit a written research report with their video.

**Helpful science fair journals for each age range can be downloaded [here](#).** While submitting the journals is optional, we recommend using them, especially for upper grades. High schoolers will find them particularly useful as they gather information for their research paper.

## **How do I submit my presentation?**

By May 24, submit your presentation using [this registration form](#). You will upload your videos and any applicable documents.

Videos must be in mp4 or mp3 format. Documents must be in PDF or Word format.

NOTE: Only high school students are required to submit a written research paper. Younger students may optionally submit project journals.

## **How will the science fair projects be evaluated?**

Below are the criteria that will be used to evaluate each science fair project. You can include these elements in the visual aid and/or the explanations you provide during the video. Be creative, have fun, and enjoy exploring God's creation!

### **Kindergarten - 2nd Grade**

- Include visual aid
- Clear explanation of project
- Show enthusiasm for the project
- Consider safety if the project warrants caution
- Demonstrate knowledge of the scientific method
  - Form a question
  - Background research
  - Create a hypothesis
  - Test the hypothesis
  - Analyze data
  - Draw a conclusion
  - Report results
  - Form a new question

### **3rd - 5th Grade**

- Include visual aid that clearly demonstrates the procedure
- Clear explanation of project with an effort in presentation skills. Ex: Pacing, voice inflection, volume, eye contact, body language.
- Show enthusiasm for the project
- Consider safety if the project warrants caution
- Optional: Include a research journal that is complete and legible
- Demonstrate knowledge of the scientific method
  - Form a testable question where the results can be recorded in an objective way (Ex: with a number)
  - Focus on only one variable with all other variables controlled. Ex: Measurements of all chemicals, temperatures, and/or distances are listed in the procedure
  - Background research
  - Create a hypothesis
  - Test the hypothesis
  - Data collection and analysis seems reliable. Ex: units labeled, presented in a t-chart, graph, etc.
  - Draw a conclusion that seeks to answer the research question and directly references the hypothesis
  - Report results
  - Form a new question

### **6th - 8th Grade**

- Include visual aid that clearly demonstrates the procedure
- Clear explanation of project with an effort in presentation skills. Ex: Pacing, voice inflection, volume, eye contact, body language.
- Show enthusiasm for the project
- Consider safety if the project warrants caution
- Optional: Includes a research journal that is complete and legible
- Demonstrate knowledge of the scientific method
  - Form a testable question where the results can be recorded in an objective way (Ex: with a number)
  - Focus on only one variable with all other variables controlled. Ex: Measurements of all chemicals, temperatures, and/or distances are listed in the procedure
  - Background research
  - Create a hypothesis
  - Test the hypothesis
  - Data collection and analysis seems reliable. Ex: units labeled, presented in a t-chart, graph, etc.
  - Draw a conclusion that seeks to answer the research question and directly references the hypothesis
  - Report results
  - Discuss what went well in the process and what needs improvement. Ex: What would you do differently next time? What additional questions were raised?

- Form a new question

### **9th - 12th Grade**

- Include visual aid that clearly demonstrates the procedure
- Clear explanation of project with an effort in presentation skills. Ex: Pacing, voice inflection, volume, eye contact, body language.
- Show enthusiasm for the project
- Consider safety if the project warrants caution
- Optional: Includes a research journal that is complete and legible
- Demonstrate knowledge of the scientific method
  - Form a testable question where the results can be recorded in an objective way (Ex: with a number)
  - Focus on only one variable with all other variables controlled. Ex: Measurements of all chemicals, temperatures, and/or distances are listed in the procedure
  - Background research
  - Create a hypothesis
  - Test the hypothesis
  - Data collection and analysis seems reliable. Ex: units labeled, presented in a t-chart, graph, etc.
  - Data was collected from at least 6 trials (the more the better)
  - Data was handled with extra care such as calculating averages to help draw conclusions using multiple trials
  - Draw a conclusion that seeks to answer the research question and directly references the hypothesis
  - Report results
  - Discuss what went well in the process and what needs improvement
  - Form a new question
- Research Paper
  - Main elements from the research project are included in the paper
  - Paper is laid out in a logical way, making it easy to follow
  - Bibliography present and formatted in a standard way
  - Free from punctuation, grammar, and spelling errors
  - Discusses what went well and what needs improvement. Ex: What would you do differently next time? What additional questions were raised?
  - Is the student able to demonstrate understanding of the scientific method and their project when questioned?

## **Who do I contact if I have questions or problems?**

If you have any questions or run into issues with your project submission, please contact Tauna at [meyers@oceanetwork.org](mailto:meyers@oceanetwork.org). We're happy to help and hope you have a wonderful science fair experience!