

# Using ZFairs to Judge Student Projects

1. Read the information on the volunteer judge information center, and navigate to Online Judging at the top of your screen:

Mail - COS Academic Affairs - X Northern Virginia Elementary a X +

va-nvse.zfairs.com/?f=0d4c8863-1b36-455b-97ec-50f39c5935d7

## Northern Virginia Elementary and Middle School Science and Engineering Fair

Home Paperwork Fair Go To Online Judging Natalie

Welcome to the Northern Virginia Elementary and Middle School Science and Engineering Fair

General Student's Main Teacher's Main Judge's Main Volunteer

# Volunteer Judge Information Center

**Schedule:**

Your attendance is required at

- ONE of the two training sessions offered, either on Thursday 4/29 at 7pm or Saturday 5/1 at 8am.
- Pre-judging on your own time on Friday (if you attend the Thursday session) or on Saturday morning (if you attend either session)
- The live judging from 10:15-11:45
- Discussion and project ranking with other judges from 12:30-2:00

TIME	ACTIVITY	LOCATION
------	----------	----------

2. You will be assigned projects for your judging round. Click on a project to view and judge it.

The screenshot shows a web browser window with the following elements:

- Browser Tabs:** Mail - COS Academic Affairs, Northern Virginia Elementary, Online Judging.
- Address Bar:** judging.zfairs.com/app/landing
- Header:** "Hi Natalie!" and a welcome message: "Welcome to the judging portal for the 2021 NVSE Fair!"
- Section Header:** "Test Round" with a sub-note: "This is the default round."
- Search Bar:** A text input field labeled "search projects" with a magnifying glass icon.
- Project List:** A single project entry: "SF-CC-001 Lava Volcano". A black arrow points to this entry.
- Filter Section:** "Find projects" with two dropdown menus: "Search by Category" and "Search by Division".
- Footer:** The zFairs logo.

3. Learn about the project by navigating between the description, pictures, images, and video link at the top of the screen. Only Division 3 (grades 6-8) students are required to submit a video link.

The screenshot shows a web browser window with the URL `judging.zfairs.com/app/landing`. The page title is "SF-CC-001" and it has a "close" button. The main content area is titled "Lava Volcano" and features a "Project Info" tab that is circled in red. Below the tab are four sub-tabs: "Description", "Pics", "Images", and "Video Link". The main content area displays a promotional graphic for a "RESEARCH SPOTLIGHT VIA ZOOM" event on Thursday, Feb. 25, from 1 to 3 p.m. EST. The graphic includes the text "Make connections and explore research opportunities across the college." and a list of bullet points: "Faculty panel on climate change, COVID-19, urban science and sustainability research", "Chances to win multiple prizes", and "Form or join a team for our District Trivia Challenge". It also provides the registration link `science.gmu.edu/ScienceConnect` and the Mason College of Science logo with the tagline "Understand. Innovate. Succeed." and the text "Meet #MasonScience at ScienceConnect Registration Required".

4. Fill out the judging sheet after you review the project.

The screenshot shows a web browser with several tabs: 'Mail - COS Academic Affairs', 'Northern Virginia Elementary', 'SF-CC-001 - Online Judging', and 'Courses'. The address bar shows 'judging.zfairs.com/app/landing'. The page title is 'SF-CC-001' with a 'close' button. The main content is a judging sheet for 'Coding with Commitment'. It asks 'Does this project fit the criteria to be considered for a coding with commitment prize?' and lists criteria: 1. STEM Knowledge and 2. Computation/Coding in the project's research, design, or development that 3. Expresses Passion for helping or improving one's community. It includes definitions for 'Passion for Community' and 'Computation/Coding'. At the bottom, there are two radio buttons for 'No' and 'Yes'. Below this is a section for 'Creativity and Enthusiasm' with two questions: 'Did the student work independently? How much adult involvement was required?' and 'Does the project display support the student's knowledge of and enthusiasm for the project?'. Both questions have a 1-10 scale. The first question has '9' selected, and the second has '7' selected. A third question, 'Does the project show creative ability and originality in the question asked, the approach to solving the problem or in the analysis of the data?', is partially visible at the bottom.

**SF-CC-001** close

### Coding with Commitment

**Does this project fit the criteria to be considered for a coding with commitment prize?**

Judges shall select a student participating in any STEM category who combines:

1. STEM Knowledge and
2. Computation/Coding in the project's research, design, or development that
3. Expresses Passion for helping or improving one's community

- Judges must consider the extent to which competitors have access to STEM and computing tools to fairly weigh and consider innovative projects by low-income and under-represented students whose access to these resources may be more limited than to other competitors.
- o Passion for Community is defined as the desire to protect, preserve, save, improve, or promote quality of life or nature in one's family, urban or rural neighborhood, region or the Earth across any STEM category of the student's choosing and consistent with the 17 sustainable goals set by the United Nations.
- o Computation/Coding is defined as the understanding and application of computational thinking and mathematical modeling principles associated with analyzing and applying data through a computer or Raspberry Pi®, NOT merely Googling or Wikiing information.

No  Yes

### Creativity and Enthusiasm

**Did the student work independently? How much adult involvement was required?**

Rate on a scale of 1-10  
1 - the student does not appear to have done any of the project or presentation slide  
10 - The student worked as independently as possible given their age

1 2 3 4 5 6 7 8 **9** 10

**Does the project display support the student's knowledge of and enthusiasm for the project?**

Rate on a scale of 1-10  
1 - The student does not show any interest or enthusiasm  
10 - The student is excited to share their work

1 2 3 4 5 6 **7** 8 9 10

**Does the project show creative ability and originality in the question asked, the approach to solving the problem or in the analysis of the data?**

5. Submit your scores using the green submit button at the bottom of the page. You will be able to go back and adjust your notes/scores during the second round.

Mail - COS Academic Affairs - x Northern Virginia Elementary a x SF-CC-001 - Online Judging x Courses x +

judging.zfairs.com/app/landing Update

### SF-CC-001 close

Rate on a scale from 1-10:  
1 - the student is not able to explain collection methods/data/results/conclusions.  
10 - The student gave a great explanation of their collection and data, and properly supported their conclusions.

1 2 3 4 5 6 7 8 9 10

**Is the student(s) able to thoroughly explain the project, understand the limitations of his/her research and provide possible ideas for furthering the research?**

Rate on a scale of 1-10:  
1 - The student can not explain the project  
10 - The student provides a clear description of their research and it's place in the field, and how it could grow in the future.

1 2 3 4 5 6 7 8 9 10

Participant Feedback (possibly shared with student):

Good work!

Notes (not shared with student):

## Sample Questions for Judges:

- How did you come up with the idea for this project?
- What was the most interesting background reading you did?
- How much time (many days) did it take to run the experiments (grow the plants) (collect each data point)?
- What was your hypothesis?
- Why did you think that would happen?
- What were your independent and dependent variables?
- What was your control?
- What did you measure and how?
- How did you calculate that result?
- Why did you choose that amount (or measurement, or piece of equipment, etc.)?
- Can you explain your procedure to me?
- Can you explain this graph to me?
- What does this (some project detail) mean?
- What do you mean by (terminology used by the student)?
- What do your results mean?
- How many times did you repeat this experiment?
- Did you need to change your original procedures? If so, why?
- What is the most important thing you found out by doing this project?
- What did you base that conclusion on?
- Why/How are your findings important?
- What was the hardest part (or most fun, or most exciting, or most surprising, etc.)?
- What is the next experiment to do in continuing this study?
- If you had to do it all over again, is there anything you would do differently?
- Do you think there is an application in industry for this knowledge (technique)?





Factor/Judges use to make decisions	What the judges are trying to determine	Examples of questions a judge might ask during an interview
Creativity / originality	Is this work novel?	Why did you choose this topic and how did you settle on your approach to the problem?
Scientific thought / engineering process	Did the student understand the scientific/engineering method and apply it appropriately?	Can you walk me through how and why you decided on this experimental/engineering design?
Background information / thoroughness	Does the student understand what was done previously in the field?	How does your approach to the question differ from people's previous approaches?
Skill / independence	Who designed and carried out the bulk of the work?	What was the most surprising experimental/engineering challenge you faced during this science project? How did you overcome it?
Thoroughness	Is the completed work sufficient to move the field forward?	What were your goals with this science project and how would you evaluate where you are in respect to those goals?
Clarity	Can the student clearly and easily discuss all aspects of his or her project? During an interview, judges might want to make sure that a student can think and speak well when thrown a curve.	If your tests had shown XYZ instead, what would you have done? Why?
Teamwork (only applicable for team projects)	Was each member of the team fully involved? Does each member, regardless of his or her specific experimental role, understand all aspects of the science project?	The great thing about working together is the synergy between people. What would you say was the most important skill or idea each of you had during the course of this science project?