



## Frontier STEM Hub



### Organization

Backbone Organization: Malheur ESD  
Counties in Region: Malheur  
Sq. Miles in Region: 9,930  
STEM Hub Director: Nickie Shira  
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### By the Numbers

# School Districts: 11  
# Students: 5,095  
# Educators participated in Professional Development: 633  
# Educator Hours in Hub PD: 2,613  
# Students participated in STEM Hub Programs: 3,133  
# Student hours in STEM Hub Supported Programs: 20,412

### Engaging Youth in STEM: Empowering Tomorrow's Innovators

In the 2022/23 academic year, Frontier continued its proactive approach to foster STEM education by supporting 24 Chief Science Officers (CSOs) from 7 schools in Malheur County. These youth STEM Ambassadors played a crucial role in advancing STEM engagement across their campuses and the broader community by planning and facilitating STEM action plans, including Family STEM Nights, STEM Street Fairs, STEM Lessons in Elementary Classrooms, and Math Challenges. Through their efforts, more than 700 students and community members engaged in hands-on STEM experiences.

A significant highlight occurred in November 2022 when the Frontier CSOs embarked on a STEM adventure in Bend, Oregon. Their journey included a college visit to Oregon State University-Cascade Campus, an industry tour of Samson Sky, a company working on a groundbreaking design for a flying car, and participation in the Central Oregon Maker Faire.

Inspired by their experience, the CSOs passionately advocated for the introduction of a Maker Faire in Malheur County. Recognizing the potential for stimulating interest and curiosity in STEM and innovation, the

CSOs successfully urged Frontier's leadership to initiate plans for a Maker Faire in the region. The Malheur Maker Faire is scheduled for April 2024.

## Computer Science

Frontier STEM Hub is at the forefront of empowering educators to provide robust computer science (CS) learning opportunities for Malheur County youth. Through the dedicated efforts of their experienced staff and committed partners, Frontier has been instrumental in delivering computer science equipment and kits to schools, facilitating professional development for educators, and actively working to overcome barriers to access in remote rural districts. In the 2022/2023 school year Frontier engaged 99 local educators in regional, in-person, and virtual CS sessions, totaling over 250 hours of professional development. CS sessions offered encompassed a diverse range of topics, from BeeBots to digital fabrication.

Expanding computer science learning opportunities for Malheur County's youth extends beyond traditional classrooms. With a focus on addressing the challenges faced by students in rural areas with limited CS programs, the Hub strategically partnered with the local high school VEX robotics team and Chief Science Officers members to organize a week-long robotics summer camp. This initiative not only provided hands-on experience with robotics but also fostered collaboration and curiosity among the participants. The camp successfully engaged 20 rural students, resulting in over 500 total hours dedicated to robotics. By leveraging partnerships and innovative programs, Frontier STEM Hub continues to bridge the gap in CS education, ensuring that even in remote rural areas, youth have access to impactful and immersive learning experiences, preparing them for a digital future.

## Career Connected Learning

This past summer, Frontier STEM facilitated the 3<sup>rd</sup> cohort of the Malheur Works Internship program providing over 360 paid hours of skill and professional development (PD) training to 21 young adults. Developed by a diverse team of youth, industry, education, and community partners, Malheur Works provides a nine-week paid internship for graduated seniors, offering hands-on work experience, PD, and mentorship. The goal is to equip interns with essential employability skills, bridging the gap between the classroom and the real world. The program's success is reflected in this past year's cohort responses:

100% of interns said they gained impactful skills and found value in the PD workshops.

100% of interns said the Professional Development days were valuable and helped their work performance.

86% of interns responded that their long-term goals/careers changed or were better defined after participating in the program.

64% of interns expressed that they would not have been able to participate if the positions were unpaid.