



MESA[®] OREGON

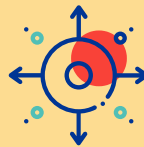
Member of the STEM PUSH Network, an NSF INCLUDES Alliance

Oregon MESA (Math Engineering Science Achievement) equips teachers to help underserved middle and high school students excel in STEM (science, technology, engineering, and math) through hands-on invention education. The MESA Schools Program teaches STEM, invention, and 21st-century skills to historically underrepresented middle and high school students in 5th-12th grades. We overcome barriers to access by providing our program at no cost, offering it at the schools where students are enrolled, and engaging parents directly in the success of their student.

Oregon MESA provides students the opportunity to find success. Our invention education program provides a confidence-building curriculum for historically underrepresented students and improves student grades and graduation rates.

Oregon MESA emphasizes & develops several targeted outcomes, including:

- Problem solving and critical thinking skills
- Awareness of STEM opportunities & careers
- Ability to make connections between STEM content & real-world experiences especially societal and community problems
- STEM identity & sense of belonging
- Building confidence and agency in STEM



Students demonstrate these skills through hands-on invention education.

About the STEM PUSH Network

STEM PUSH, an NSF INCLUDES Alliance, is a national network of pre-college STEM programs who are engaging youth historically underrepresented in STEM to learn & do in-depth, authentic science, and ultimately to persist in STEM through college & beyond. More information available at stempushnetwork.org.



Program Features

Invention Education

STEM Focus



1 hour/week

September through June

500-600 students served each year

Free for students to attend

Workshops & programs

are offered throughout the year in topics ranging from **computer science** to **college access**

85% of students are underrepresented in STEM

Program Results

94% of Oregon MESA students agreed that their confidence in using one or more invention skills increased because of MESA in 2022

75% of students reported strong self-efficacy and felt that they could be an inventor, engineer, or computer scientist

Alumni have attended institutions including:

- Clark College
- George Fox University
- Oregon State University
- Portland State University
- University of Oregon
- University of Portland
- Western Oregon University



38% of Oregon MESA alum attend college

Alumni network

connects high school grads with MESA alumni, many of whom are now leading industry professionals

Next Generation Science Standards

aligned curriculum teaches a range of applicable skills that starts with problem identification, idea generation, physical prototyping, iterative problem solving, cooperative achievement, and public speaking

Oregon MESA

Oregon MESA was founded in 1985 on the belief that access to a STEM education and exposure to successful role models can irrevocably change the course of an underrepresented student's life. Born out of the civil rights movement and founded by leaders of color in Portland, Oregon MESA has been an enduring and positive presence in the lives of young people for over three decades.

Oregon MESA creates an ecosystem of hundreds of students, teachers, families, companies, and volunteers, all focused on improving the diversity of the tech-based workforce and helping under-represented students excel in math, engineering, and science. Businesses and volunteers provide mentorship and education to students who will make up the diverse and talented workforce of the future. Family engagement programs extend the reach of MESA into the home. Regional centers increase access to community resources.

MESA has opened up many opportunities for me. MESA has allowed me to explore career options in different fields of engineering and I feel like I can count on the people from MESA to guide me when I need help. [...] MESA has empowered me to believe in myself and know that I have the right to be where I am.

- 2019 Oregon MESA Student

Oregon MESA's focus on careers supports students in visualizing and creating a concrete plan for the future, not just dreaming about one. The College and Careers Program supports students discovering their passions, while also educating the STEM community to create a more diverse and equitable ecosystem. Field trips to local colleges, universities, and technology employers provide a new sense of possibility for kids who have typically never had exposure to higher education, STEM careers, or role models in these areas.

Connect with Oregon MESA!

Contact ormesa@pdx.edu to schedule a visit.

More information about Oregon MESA is available at oregonmesa.org.

