

SMILE (SCIENCE & MATH INVESTIGATIVE LEARNING EXPERIENCES)

Parent organization: Oregon State University

Web address: <http://smile.oregonstate.edu/>

Grade level or ages served: Grades 4 – 12; emphasis on under-represented minorities and other educationally underserved students in grades 4 -12

Overview: The SMILE Program conducts a year-round schedule of activities designed to provide engaging and inquiry-based science experience, strengthen students' knowledge, and raise students' academic and career aspirations. OSU resource faculty and The SMILE Program professional staff provide scientific and pedagogic expertise, teaching and learning resources, mentoring, database management and assessment, and administrative support; the schools provide energetic students, dedicated teachers, and some financial support for local programming.

Subjects covered: Science, technology, engineering, and mathematics (STEM)

Size of program: More than 700 elementary, middle, and high school students, along with 67 teachers, in 35 schools.

Where offered: Cave Junction, Chiloquin, Dayton, Forest Grove, La Pine, Madras, Nyssa, Ontario, Pendleton, Siletz/Toledo, Sisters, Warm Springs, Willamina, Woodburn

Time spent by students: Weekly meetings; annual outdoor ecosystem science camp for elementary students; Family Math and Science nights; annual college-connection, engineering challenge event for middle school students at Western Oregon University and OSU; annual college-connection, ocean sciences challenge event for high school students at Western Oregon University and OSU; visits to partner communities by OSU faculty and staff.

Partners/Sponsors: OSU and 13 mostly rural school districts,

Materials available on web and/or purchase: Two-part curriculum for outdoor science camp for fourth and fifth grade students; The SMILE Model; Framework for Engineering Challenges for Middle School Students; Ocean Sciences, Framework for Scenario-Based Challenges for High School Students

Training for teachers, facilitators, volunteers, leaders is: Three professional development workshops for teachers are offered each year. Attendance at each is **required** for all teachers serving as SMILE Club advisors.

Workshops: http://smile.oregonstate.edu/eventsCalendar_index.htm

Training sessions are provided for college students serving as mentors for SMILE student events. Support services are provided for university faculty and community experts providing learning opportunities for SMILE teachers or students.

Please explain: Lodging, meals, and transportation costs for the teacher workshops are provided for each participating teacher. In addition, resources from the workshops and materials for activity implementation are provided for the teachers and clubs.

Cost structure: SMILE programming is provided at no cost to participating students and their families. Travel costs to the annual college connection events and regional/local field trips travel are covered through program funds. Materials for club and take-home activities are also provided through program funds

Funding: Howard Huges Medical Institute, JELD-WEN Tradition Foundation, National Aeronautics and Space Administration, National Institutes of Health, National Science Foundation, National Oceanic and Atmospheric Administration, US Department of Education

Other points of interest: Eighty per cent of SMILE seniors go on to college. Seventy-two per cent of former SMILE students who received a degree from OSU completed a major in one of the five career focus areas of the program – math, science, engineering, health professions and teaching