

Institute for Tribal Environmental Professionals (ITEP)

Environmental Education Outreach Program (EEOP)

The mission of the Native American Environmental Education Outreach Program (EEOP) is to encourage Native American students to pursue environmental careers and to assist schools and communities with understanding environmental issues. The program is an extension of Northern Arizona University's Institute for Tribal Environmental Professionals (ITEP).

EEOP provides the following services:

- Provide information to students, counselors, and educators on opportunities available to enhance student success in environmental studies at the post secondary level.
- Provide workshops and conferences on environmental issues.
- Supply environmental education information and opportunities using the EEOP website and listserves.
- Host on-campus programs for middle and high school students.
- Develop partnerships between communities and educators to help build bridges between traditional values and the mainstream educational system.
- Facilitate connections between local government agencies, industry, Northern Arizona University, and schools to address community environmental issues.

EEOP has a variety of projects, programs, and workshops available:

- Air Quality Curriculum Project (AQCP)
- Global Learning and Observations to Benefit the Environment (GLOBE)
- Summer Scholars (SS) and Saturday Academy (SA)
- Uranium and Radiation Educational Outreach (UREO)
- Project Water Education for Teachers (WET)
- Career Days
- · Family Math and Family Science
- Toxicology, Risk Assessment & Pollution (ToxRAP)
- Geographic Information Systems (GIS) / Global Position System (GPS)
- Grant-writing assistance
- Problem Based Learning (PBL) workshops





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EEOP Web page:

The EEOP program maintains a web site with additional information services offered:

http://www.nau.edu/eeop/

EEOP Listserves:

The EEOP program also provides information via several listserves. To join one of the listserves or to get on the mailing list for the newsletter, send an email to mansel.nelson@nau.edu

EEOP-L - Listserve for Educators. Listserve provides information on all EEOP services and educator workshops, as well as grant writing opportunities and conferences for educators.

EEOPSUMMER-L - Listserve for Students and Educators. Listserve provides information on summer programs, internships, and potential employment opportunities in environmental careers.

GLOBENAU-L - Listserve for Educators. Listserve provides information on the GLOBE program, including educator workshops.

UREO-L – Listserve for Educators. Listserve provides information on Uranium and Radiation issues and education, including educator workshops and available resources.

ITEP Newsletter:

Educators are also welcome to sign up for the ITEP Quarterly newsletter that provides information on ITEP and EEOP programs.

EEOP Career Manual:

Counselors, educators, and students can get information about environmental careers using the EEOP web site. Go to http://www.nau.edu/eeop/ and follow the link to Career Manual.



INSTITUTE FOR TRIBAL ENVIRONMENTAL PROFESSIONALS Environmental Education Outreach Program

Global Learning and Observations to Benefit the Environment (GLOBE)

Project Goals: The GLOBE science and education activities help students reach higher levels of achievement in science and math. The GLOBE program helps to increase the environmental awareness of all individuals while increasing our scientific understanding of the earth. The GLOBE students make environmental observations at or near their schools and report their data through the Internet. Scientists use GLOBE data in their research and provide feedback to the students to enrich their science education. The Global images based on GLOBE student data are displayed on the World Wide Web, enabling students and other visitors to visualize the student environmental observations.

General Information: GLOBE is a worldwide network of students, teachers, and scientists working together to study and understand the global environment. Students and teachers from over 9500 schools in more than 90 countries are working with research scientists to learn more about our planet. The GLOBE Program is implemented through a worldwide network of primary and secondary schools. Professional development workshops enable GLOBE teachers to guide their students in taking measurements according to scientific protocols. Data is then reported through the Internet to the GLOBE data archive. The information in the data archive is available for the public to see and can be used by students to create charts and graphs. The GLOBE program is an interagency program of the National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, National Science Foundation, Environmental Protection Agency, and Department of Education and State. Implementation in the United States depends upon the efforts of almost 100 state and local partner organizations, including the GLOBE partnership at Northern Arizona University (NAU).

Curriculum: The GLOBE program guide has a series of activities and scientific protocols developed by scientists and educators as resources for GLOBE teachers. The GLOBE program is NOT a complete environmental or science curriculum. However, the EEOP staff will also work with teachers on integration of GLOBE with cultural knowledge and with other curriculums such as the Full Option Science System (FOSS), Great Explorations in Mathematics and Science (GEMS), and Project WET. The areas of instruction in the GLOBE program cover Atmosphere, Hydrology, Soil, Land Cover, and Global Positioning System (GPS). Each area has several protocols that are designed to help students scientifically observe and record data about their environments.

<u>Website:</u> The GLOBE web site provides information and resources for educators. All the GLOBE activities, protocols and data can be accessed through the GLOBE web site. A teacher must complete the GLOBE training before submitting data to the GLOBE data server. (http://www.globe.gov)

<u>Listserve</u>: The GLOBENAU-L listserve will provide information on workshops and assistance for implementation of the GLOBE program. To join the listserve send an email to mansel.nelson@nau.edu

<u>Contact:</u> For more information, contact Mansel A. Nelson at <u>mansel.nelson@nau.edu</u>, phone 928 523 1275 / 1496, or fax 928 523 1280. You may also visit the GLOBE-NAU web site at http://www.nau.edu/globe.



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Project Water Education for Teachers (WET)

<u>Project Goals:</u> The goal of Project WET is to facilitate and promote awareness, appreciation, knowledge, and stewardship of water resources through the development and dissemination of classroom-ready teaching aids and through the establishment of state sponsored Project WET programs. Project WET believes:

- water moves through living and nonliving systems and binds them together in a complex web of life.
- water of sufficient quality and quantity is important for all water users (energy producers, farmers and ranchers, fish and wildlife, manufacturers, recreationists, rural and urban dwellers).
- sustainable water management is crucial for providing tomorrows children with social and economic stability in a healthy environment.
- awareness of and respect for water resources can encourage a personal, lifelong commitment of responsibility and positive community participation.

Curriculum: Project WET used appropriate standards, such as the Benchmarks for Science Literacy, in developing activities. For example, the activity Molecules in Motion specifically addresses physical science benchmarks related to the structure of matter. Irrigation Interpretation addresses the benchmarks for the technological system of agriculture, specifically the relationship between irrigation and crop production. As teachers develop or implement curricula designed for their classrooms, schools, and districts, they will find Project WET activities appropriate and effective in helping to meet goals and objectives. Educators can select activities from the Project WET Curriculum and Activity Guide to meet national educational standards and local curricula expectations, in order to build a nation of learners.

AZ Curriculum: There is also an Arizona Project WET curriculum that provides information and activities specific to Arizona state issues.

<u>Workshops:</u> Teachers must attend a six (6) hour workshop to get the Project WET curriculum.

<u>Website:</u> The Project WET web site provides information and resources for educators. (http://www.montana.edu/wwwwet/)

<u>Listserve</u>: The EEOP-L listserve will provide information on workshops for the Project WET program. To join the listserve send an email to mansel.nelson@nau.edu

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