

Project: ExplorOlogy
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Project Website: <http://explorology.snomnh.ou.edu>

Project Categories: Programs, Infrastructure

Primary Target: Youth (Middle)

How to Reach Primary Target: We engage middle and high school youth in authentic science experiences with scientists in the field.

Secondary Target: Classroom Teachers

How to Reach Secondary Target: We provide professional development institutes for classroom teachers that include both science research experiences with university scientists and pedagogy approaches for implementing inquiry learning in teachers' classrooms.

General Demographics: Mostly rural students (and teachers) from throughout Oklahoma.

Project Dates: 11/1/2007 - 5/1/2010

Funders

Funders: Whitten-Newman Foundation
One Leadership Square
211 N. Robinson Ave., Suite 1350A
Oklahoma City, OK 73102
<http://www.whitten-newmanfoundation.org/>

Evaluation and Field Testing

Evaluators:

Evaluation Strategy: After the first summer of the project, we will hire an external evaluator to evaluate the overall project. At this time, we are gathering feedback, outcomes, and some research data on the teacher professional development portion of the project.

Project Descriptions

Summary: ExplorOlogy is an educational project designed to engage Oklahoma youth, families and teachers in "doing science". Participants are immersed in the world of field exploration with personalized interactive scientific experiences alongside museum scientists and experts. ExplorOlogy's goal is to help participants understand what science is, how it's done, and why it's important. We hope to inspire youth and adults to gain a better understanding of science and to reverse the troubling trends in science education and scientific

literacy. Oklahomans need to understand science and the scientific process in order to meet challenges of the 21st Century, such as global climate change. SNOMNH is playing a vital role by connecting youth and teachers with scientists who will provide them with an authentic experience in practicing science. ExplorOlogy includes several learning opportunities for Oklahomans. Oklahoma Science Adventure offers a weeklong summer field experience at research sites in Oklahoma for 12 middle-school-age youths. They join scientists in field exploration in a variety of “ologies,” ranging from paleontology to herpetology. During Summer Explorers programs, children ages 4 to 14 and families discover plants and animals that live (or lived a long time ago!) in Oklahoma grasslands, urban environments, wetlands, ponds and rivers. ExplorOlogy also puts teachers in the role of scientists and helps them implement inquiry-based teaching approaches. Teachers conduct scientific investigations with museum and university scientists to build a deeper understanding of content, inquiry and the nature of science.

Impact:

ExplorOlogy is the result of our desire to encourage youth, families and teachers in Oklahoma to explore their environment and ask questions—the first steps toward a better understanding of the scientific process. Participants are excited about discovery, science, and teaching science. Participants also feel confident that they can do science and be a scientist.

Lessons:

We have learned that authentic science experiences where students, whether youth or adults, can engage in "doing science" have a significant impact on people's perception of science and their personal confidence in understanding scientific concepts and teaching science to others. Authentic science experiences come in many different formats and creating the right experience for each target group is the challenge.