

Natural Resource Education

Providing opportunities for students to explore, understand, and connect with their local environments and working landscapes.



Program areas

Scientific inquiry and residential programming

Building skills in K-8 grades to allow students to think critically about the world around them.

Restoration and field monitoring

Bringing students into local ecosystems to collect data and restore damaged areas.

Class and school-wide programs

Developing immersive and integrative programs to show connections between science and other subjects.

Extracurricular natural resource competitions

Training small teams of students to participate in statewide and national events

Summer internships

Providing employment for students to delve deeper into native plant propagation & restoration.

What do we do?

The Natural Resource Education (NRE) team at Sierra Institute teaches students about science from 1st through 12th grade. Our goal is to instill an excitement about learning and to inform youth about the natural resources around them. From the trees in the forest to the bugs in the creek, we get students outside and asking questions about local ecosystems. We also provide summer internships where students can learn practical skills, experience field biology and ecology, and build a resume.

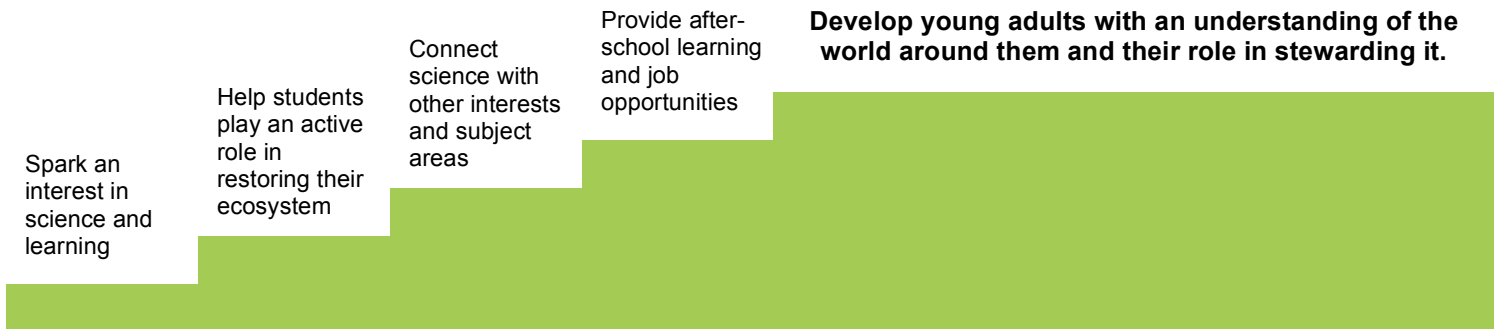
Our NRE work focuses on disadvantaged communities in Plumas County, building stewardship ethics and environmental literacy to inform the next generation of natural resource stewards. Nestled in the Feather River Watershed, Plumas County is home to one of the most important watersheds for hydropower for the state of California and drinking water for citizens from Sacramento down to Los Angeles. By providing local students with experiences that underscore the importance of these systems, and fostering a passion to protect them, we not only build strong communities and future natural resource leaders, but also more resilient ecosystems.

Promoting place-based scientific inquiry

We utilize the outdoor classrooms of local landscapes to help build critical thinking and scientific inquiry skills in students. These abilities help create thoughtful and rational young adults who are able to contribute to classroom, social, and interpersonal interactions, even beyond the scientific fields.



Sierra Institute believes that consistent exposure to education and experiences help move disadvantaged students from rooms with glass ceilings to open landscapes with wide horizons. As such, we aim to provide a diverse array of engaging opportunities to stimulate student interest not only in natural resources, but also in learning and stewardship in general.



1. Building scientific inquiry in youth

In 2017 our NRE team expanded our programming into the elementary schools, working with individual classes to explore the process of scientific inquiry. By exposing young students to the stimulation of observation, and the freedom of questioning and experimenting that comes with it, we aim to instill in youth an excitement for science and the natural world around them that they will carry with them for many years to come. We have also initiated residential education programming for 7th grade students, providing a three-day immersive learning experience focused on wildlife, local ecology, and team skills.

2. Field and classroom exposure to scientific principles

We provide hands-on opportunities to engage with the environment by taking students into wildfire

scars and damaged landscapes, where they both ask questions and collect data, as well as take an active role in restoring these areas.

3. School-wide and thematic learning

Connecting science to other subject areas not only engages a breadth of students who might normally disengage, but also demonstrates real-world applications that make learning more tangible. To this end, Sierra Institute has worked with local schools to implement weeklong thematic programming focused on a given Essential Question. These “Institutes” connect a central theme to all core subject areas through presentations, hands-on activities and demonstrations, and culminate in student presentations. A similar approach is used in 7th grade residential programming.

4. Natural Resource Forestry competitions and science fair mentorship

Students seeking

additional opportunities outside of the classroom can participate in natural resource teams, that compete in events like the California Forestry Challenge and Envirothon. In 2016, Greenville High School students placed third out of 21 teams (many from much larger schools!).



Hands-on learning is integral to our approach.

5. Summer internship opportunities

As a step towards employment in natural resource fields, Sierra Institute offers summer internships focused on native plant propagation and care, garden management, and field data collection.