

Tree Rings STEM Experience



Drought, fire, and pine beetles have ravaged the forests of the Rocky Mountains. This research experience introduces students to the field of dendrochronology. Teams locate, characterize and core ponderosa pine trees to determine age, drought years vs wet years, and look for scars from fires.

Big Concept: Correlation, age dating

Place based and culturally relevant

Scientific Inquiry Skills:

- Use of field equipment
- Sample preparation and analysis
- Math skills
- Spatial analysis
- Use of science notebook

Grade Levels: 10th through 12th

Number of Kits per Set: 7

Student Group Size: 4

Time Required: 6 hours

Web page:

cns-eoc.colostate.edu/treerings.html

Funding: Linda Hamilton

Faculty Collaborator: Laurie Huckaby (USFS)

These kits are used for the SciTrek summer camp.



College of Natural Sciences
Education & Outreach Center



Colorado
State
University

CNS Education & Outreach Center Mission Statement

The College of Natural Sciences Education & Outreach Center is an incubator for innovation in STEM education. We serve both CSU and 4th-12th grade students and faculty through a variety of programs. Many of our programs focus on authentic scientific research experiences that aim to promote enthusiasm for the STEM disciplines, especially for students traditionally underrepresented in these fields. Particular emphasis is on finding new ways to promote scientific creativity and innovation, attributes essential for global challenges in the 21st century.

Learn more:

www.cns-eoc.colostate.edu

SciTrek Summer Camp

What do scientists really do? Join the College of Natural Sciences Education & Outreach Center's staff in conducting real scientific research activities in a variety of laboratory and outdoor field settings.

Activities include:

- Exploring the nature of science;
- Identifying research problems;
- Experimental design;
- Collection of data with a variety of sophisticated tools;
- Interpretation of data; and
- Drawing and communicating conclusions.

Students participating in SciTrek tackle real world problems from a scientific standpoint. In the past, topics have included the mountain pine beetle infestation, invasive weeds, groundwater quality and quantity, dendrochronology, geographic mapping, etc. Students receive personal mentoring from first-class teachers, staff and expert guest presenters. Some outdoor field work will include a moderate amount of hiking.

This program is open to students entering grades 10 through 12 in the fall. This summer camp has been going strong since 1999.

Learn more:

www.cns-eoc.colostate.edu/scitrek.html

Discovery Begins Here