Soil Carbon STEM Kit

Explore how carbon moves through the environment as you analyze three soil samples from different areas of the 2012 High Park Fire. It is your task to determine which of the samples was intensely burned, moderately burned, or unburned.

Big Concept: Carbon Cycle

Place Based: Northern Colorado

Culturally Relevant: High Park Fire

Scientific Inquiry Skills:
- Use of microscope and digital balance
- Sample preparation
- Visual estimation
- Data collection
- Use of science notebook

Grade Levels: 6th grade and up

Number of Kits per Set: 15

Student Group Size: 2

Time Required: 90-120 minutes

Web page:
cns-eoc.colostate.edu/soilcarbon.html

Funding: National Science Foundation

Faculty Collaborator: Dr. Francesca Cotrufo

These kits are used for STEM Friday field trips, teacher workshops, and are available through the EOC Lending Library.

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

STEM Fridays

STEM Fridays are facilitated by CSU undergraduate students studying to become science teachers, mentored by EOC staff. The science content has been developed at the EOC to give students a mini scientific research experience in a safe university laboratory setting. All content is tied to Colorado Science Education Standards and is compatible with the Next Generation Science Standards.

Learn more:
www.cns-eoc.colostate.edu/cnseocstemfriday.html

EOC Lending Library

The EOC has a variety of STEM materials and kits available for weeklong loans by classroom and informal educators. Please visit the following link to see which kits are currently available.

Learn more:
www.cns-eoc.colostate.edu/stemkits.html

Discovery Begins Here