

Solar Cars STEM Kit



Using raw materials such as gears, propellers, motors, solar cells, wood, and plastic, teams learn about engineering design principals and iterative prototyping as they design a car that 1) moves, 2) goes straight, 3) goes fast, and 4) can climb a hill.

Big Concept: Engineering design principals

Scientific Inquiry Skills:

- Iterative testing
- Maker style creativity
- Gear and pulley ratios
- Use of science notebook

Grade Levels: 4th grade and up

Number of Kits per Set: 15

Student Group Size: 2

Time Required: 90-120 minutes

Web page:

cns-eoc.colostate.edu/solarcars.html

Funding: National Science Foundation

Faculty Collaborator: Dr. Kurt Barth

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