

# Get Energized! STEM Kit



**Learn** what it takes to develop a new, more efficient battery and solar panel. Students will test different materials and use their own data to help them construct a working rechargeable battery and solar cell using skills and techniques straight out of a CSU research laboratory.

**Big Concepts:** renewable energy; batteries; solar cells; galvanic series; polarity; and photovoltaics

**Scientific Inquiry Skills:**

- Systematic testing of materials
- Use of multimeter and digital balance
- Data collection and analysis
- Use of science notebooks

**Grade Levels:**  
4th grade and up

**Number of Kits per Set:** 15

**Student Group Size:** 2

**Time Required:** 90-120 minutes

**Web Page:**  
<https://www.cns-eoc.colostate.edu/stem-kits/get-energized/>

**Funding:** Xcel Energy Foundation

**Faculty Collaborator:** Dr. Amy Prieto

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



College of Natural Sciences  
Education & Outreach Center



Colorado  
State  
University

## **NS Education & Outreach Center Mission Statement**

The 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:

<https://www.cns-eoc.colostate.edu/>

## **STEM Fridays**

STEM Fridays are facilitated by CSU undergraduate students studying to become science teachers, mentored by NSEOC staff. The science content has been developed at the NSEOC 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:

<https://www.cns-eoc.colostate.edu/stem-friday/>

## **STEM Kit Lending Library**

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

Learn more:

<https://www.cns-eoc.colostate.edu/stem-kits/>

*Discovery Begins Here*