

# Energy Education & Technology Center

**Thursday, February 22, 2018**  
4:30 – 7:30 p.m.  
Historic Folsom Powerhouse  
9980 Greenback lane, Folsom

**Thursday, March 1, 2018**  
4:30 – 7:30 p.m.  
SMUD  
6301 S Street, Sacramento

**Saturday, March 10, 2018**  
9 a.m. – 3 p.m.  
SMUD  
6301 S Street, Sacramento

**Wednesday, April 4, 2018**  
4:30 p.m. – 6:30 p.m.  
Historic Folsom Powerhouse  
9980 Greenback lane, Folsom

**Hot Water, Warm Homes with Sunlight** (Grades 4 – 8+)  
Discover the teaching opportunities in energy efficient and environmentally friendly design. Learn about passive construction and build model homes to uncover the effect of hot water heaters, windows, and other elements on home energy consumption and costs. Using a GEMS guide, teachers also learn about growing plants to teach the concepts of a controlled experiment, variable and outcome. The Green House Effect and climate science is also reviewed. A light dinner will be served and teachers will receive a GEMS guide.

**Project Little WET Feet - Workshop for Teachers** (PreK– Grade 2)  
Dive into the science, math, health and culture of water! Getting Little Feet WET is an engaging lesson plan which utilizes songs, storybooks, and hands-on activities to enrich concepts using multiple learning styles. The activities have been field tested and correlated with educational standards. Our workshop will include how to use this wonderful resource and sample several activities. A light dinner will be served and teachers will receive a Project WET guide.

**Solar Schoolhouse Solar Primer – Maker Class** (Grades 3 –12+)  
Teachers will learn about the science and history of heating, cooling and powering our homes with the sun and how to integrate engaging, hands-on lessons into your classrooms. We'll also build a mini-solar cooker and a solar powered Whirly-Gig. Integrate solar energy into your classroom and engage students in shaping a clean energy future. Breakfast and lunch will be served and teachers will receive curriculum, classroom materials and solar projects.

**State Parks in Your Classroom** (Grades K – 12)  
The California State Park can make environmental stewardship come alive in your classroom. Hear about opportunities for students to learn science and environmental stewardship through hands on experiences in places where lasting memories are made. Explore the museum and receive a guided tour of the Historic Folsom Powerhouse. A light dinner will be served.

**Solar Car Race**  
High school students design and race model solar cars as part of the Earth Week Festival at Cosumnes River College. SMUD provides solar car kits to participating high schools. Commercially available electric vehicles will also be on display. Visit [smud.org/Solar-car-race](http://smud.org/Solar-car-race)

**7th Annual California Solar Regatta**  
A STEM-focused, team competition to design, build and race solar-powered boats. California high school and college students are invited to compete in our 7th annual Solar Regatta. This event is open to the public. Visit [www.smud.org/Solar-Regatta](http://www.smud.org/Solar-Regatta)

**Wednesday, April 18, 2018**  
10 a.m. – 2 p.m.  
Cosumnes River College  
8401 Center Pkwy., Sacramento

**Saturday, May 4 & 5, 2018**  
7 a.m. – 4 p.m.  
Rancho Seco Recreational Area  
14440 Twin Cities Road, Herald



Spring 2018

## Professional Development Workshops for Educators



**Energy Education &  
Technology Center**

Powering forward.  
Together.

Events

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10 a.m. – 2 p.m.  
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# Teacher Workshops

## Tuesday, January 23, 2018

4:30 – 7:30 p.m.

Sacramento Office of Education (SCOE)  
David P. Meany Education Center  
10474 Mather Blvd, Mather CA

## Tuesday, January 30, 2018

4:30 – 7:30 p.m.

Hiram Johnson High School  
Little Theater  
6879 14th Ave, Sacramento

## Saturday, February 3, 2018

9 a.m. – 3 p.m.

City of Folsom, Community Center  
52 Natoma St., Folsom

## Tuesday, February 6, 2018

4:30 – 7:30 p.m.

Powerhouse Science Center  
3615 Auburn Blvd, Sacramento

### How to Build a Solar Car – Maker Class (Grades 6–12+)

Learn how to teach your students to design, construct and race a solar powered car using recycled materials and solar panels from SMUD. Find out about hosting a solar car race at your school, including race regulations and tips for a fun and engaging event. Teachers will receive a light dinner and a solar car kit. For information on the SMUD Solar Car Race visit [smud.org/solar-car-race](http://smud.org/solar-car-race).

### Solar Carnival – Maker Class [Grades 5–12+]

The Solar Carnival is coming to your school! Create a new classroom project using solar cells, motors, fans, buzzers and music using only cardboard, tape and hot glue. Teach your students how to design and construct a mini Solar Carnival consisting of kinetic rides and carnival attractions powered by the sun. In this workshop you will create one “ride” and learn tips on introducing this project to your class. Participants will receive a set of materials, teacher guide and student instructions. For a sneak peak at a carnival: visit [solarschoolhouse.org/solarcarnival](http://solarschoolhouse.org/solarcarnival). A light dinner will be served.

### Project WET Workshop for Teachers (Grades 1–12)

Join us for a Project WET (Water Education for Teachers) workshop at the City of Folsom Community Center. This workshop includes activities designed to engage students in learning about the interrelationships between human water use and the dollars and cents of water conservation. Teachers will learn about water conservation for the next generation and experience STEM learning at its best! Breakfast and lunch will be served and teachers will receive a Project Wet Guide.

### Invisible Universe [Grades 5–10+]

This GEMS workshop will help you deepen student understanding of the electromagnetic spectrum, enabling students to detect and consider wavelengths other than visible light. Activities feature energy stations and ways to help your students design their own tests to see what material blocks each wavelength. You will learn how to use wavelengths to “see” things we cannot see with our eyes. An additional lesson includes NASA’s 2003 Swift missions which studies the causes of gamma ray bursts. A light dinner will be served and teachers will receive the GEMS guide and lesson plan.

## Tuesday, February 13, 2018

4:30 – 7:30 p.m.

Hiram Johnson High School  
Little Theater  
6879 14th Ave, Sacramento

## Wednesday, February 14, 2018

5 – 7:30 p.m.

Hiram Johnson High School  
Little Theater  
6879 14th Ave, Sacramento

## Tuesday, February 20, 2018

4:30 – 7:30 p.m.

Powerhouse Science Center  
3615 Auburn Blvd., Sacramento

### Solar Powered Charger – Maker Class [Grades 6–12+]

This Solar Schoolhouse led workshop teaches educators how to build a solar charger for classroom learning. This emergency preparedness device will consist of a 6 watt solar panel, a battery bank, USB-two port charger, and an LED light bulb all mounted on coroplast. Students explore how long it takes to charge, what is the best solar orientation for charging and more. Educators will also receive additional designs as options for a student design challenge. Participants will make and take a Solar Preparedness Charger kit. A light dinner will be served.

### Build a Solar Preparedness Charger – Maker Class [Grades 5-12+]

Families are encouraged to attend together and build a solar charger for their home emergency preparedness kit. The Solar Charger will include a 6 watt solar panel, battery bank, and a two-port charger, LED light bulb all mounted on coroplast. The Solar Schoolhouse presenter will demonstrate this practical tool which can be used routinely to keep cell phones fully charged using only sunlight. The LED bulb can provide lighting for camping or emergencies. One solar charger kit per family and up to 3 people per family. A light dinner will be served.

### The Real Reasons for Seasons [Grades 6–10+]

This GEMS workshop is aimed at teaching educators to help students arrive at a clear understanding of seasons as they investigate the connections between the Sun and Earth. Teachers will take a “Trip to the Sun,” determine the real shape of the Earth’s orbit, evaluate actual data on world temperature and hours of sunlight in different locations, and model how the angle at which sunlight hits the Earth affects its concentration. This lesson was developed in partnership with the NASA Office of Space Science Sun-Earth Connection Education Forum (SECEF). A light dinner will be served and teachers will receive a GEMS guide.



**Information** | [suzette.bienvenue@smud.org](mailto:suzette.bienvenue@smud.org)

**Register for classes** | [smud.org/Education](http://smud.org/Education) • Phone: 916-732-6738

*Must show proof of current employment as an educator to participate.*