



The NEED Project
National Energy Conference for Educators
July 24-28, 2022
Albuquerque, NM

July 24	Sunday	Registration, Introduction to NEED
2:30 p.m. – 4:00 p.m.	Registration & Refreshments	Pick up your registration packet, swag, and other materials. Light refreshments provided.
2:30 p.m. – 4:15 p.m.	Blade Design Challenge	Your world still spinning from travel? Jump in and harness that energy to create a model wind turbine and see how much electricity you can produce!
4:15 p.m.	Introduction to the National Energy Conference for Educators	Learn more about NEED, who we are, why we matter, and why we are glad to have you as part of the NEED program. Meet your NEED facilitators this week. The conference sessions are designed to improve your own energy knowledge as a consumer, to provide you lessons and activities to return to the classroom with, and to allow you to explore ways to integrate more energy into your classroom programs.
5:00 p.m.	Kids Teaching Kids – Student Recognition	See examples of the winning projects and how other teachers have used NEED.
5:30 p.m.	Dinner (all together)	
July 25	Monday	Science of Energy, Sources of Energy, and Electricity
6:30 a.m.	Breakfast	
7:45 a.m.	NEED Info Booth	A NEED team member will be available to answer your conference questions.
8:00 a.m.	Science of Energy	These breakout sessions explore the forms of energy and energy transformations. <ul style="list-style-type: none">- Science of Energy- Energy Works- Thermodynamics
10:10 a.m.	Connecting Energy Education to Your Science Standards	
10:30 a.m.	Break	
10:45 a.m.	Forms of Energy to Energy Sources – Energy Expos	How do the forms and sources connect? Learn more about the energy sources we use, transportation fuels, electricity, and energy efficiency and conservation. Participants will be able to explore the Energy Expo stations and have an opportunity to vote for their favorite!
12:30 p.m.	Lunch	

- 1:30 p.m.** **NEED National Energy Conference Sponsor ConocoPhillips Guest Speaker**
- 2:00 p.m.** **Introduction to Electricity Generation**
How is electricity generated and moved to our homes and businesses?
- 2:30 p.m.** **Baseload Balance**
Play the fast-paced Baseload Balance game, exploring how generation meets our energy demands.
- 3:00 p.m.** **Sources of Energy Breakout Sessions**
These grade-level breakout sessions explore the sources of energy, their advantages and disadvantages and current uses of the source.
- 4:15 p.m.** **NEED Resources, Q&A, Planning Guide Connections and Evaluation (Play Energy Kahoot!)**
Review what we covered today! Be sure to complete your conference evaluation daily while activities are still fresh in your mind, which allows NEED to make improvements for the program in future years, but also provides feedback for curriculum improvements and training enhancements.
- 4:40 p.m.** **Synthesizing the Conference**
Working in grade level groups, participants synthesize the knowledge and process skills showcased during the day to discuss and plan integration into their classrooms.
- 5:00 p.m.** **Adjourn for the Evening; Dinner on Your Own**

July 26 Tuesday Sources of Energy

- 6:30 a.m.** **Breakfast**
- 7:45 a.m.** **NEED Info Booth**
A NEED team member will be available to answer your conference questions.
- 8:00 a.m.** **Exploring Energy Sources (Breakout Sessions)**
Solar
Oil and Natural Gas
Hydropower
Nuclear
- 9:30 a.m.** **Break**
- 9:45 a.m.** **Hands-On Energy (Breakout Sessions)**
Energy Escape Room – Using energy content, can you crack the code to escape?
Peak Oil – A fun competition to see who can make the most profit from your petroleum wells.
- 11:00 a.m.** **Flipped Classroom Model**
Turn your classroom upside down. Learn how to use a flipped classroom model to teach about energy and maximize your activity time in your classroom.
- 12:00 p.m.** **Lunch**
- 1:00 p.m.** **Understanding Carbon Capture and Climate Science**
Participants explore carbon dioxide and climate change with activities from NEED’s Climate module.
- 2:15 p.m.** **NEED Resources, Q&A, Planning Guide Connections and Evaluation -AND-
Special Recognition to the 2022 Bob Thompson Excellence in Energy Education Award Winners!**

2:45 p.m. Synthesizing the Conference
Working in grade level groups, participants synthesize the knowledge and process skills showcased during the day to discuss and plan integration into their classrooms.

3:15 p.m. Adjourn for the Evening; Dinner on Your Own

July 27 Wednesday Electricity and Energy Efficiency & Conservation

6:30 a.m. Breakfast

8:00 a.m. Guest Speaker, Mary McCarthy, Senior Energy Efficiency Consultant – Eversource

- 12:00 p.m. Energy Efficiency and Education Programs – That are Fun and Impactful!

Introduction to Energy Efficiency and Conservation

Energy efficiency and conservation techniques and tools allow for wise use of our natural resources. This introduction highlights simple and low-cost ways to reduce energy consumption and the science behind efficiency.

Investigating Energy Use

Participants will split into groups to investigate energy use in the conference building using simple energy management tools.

Energy House

Working in small groups, create the most energy efficient house!

This Week in Energy Conservation, Energy Stories and More, Energy Rock Performances

These activities allow for interdisciplinary integration of language arts skills. Groups make quick presentations about energy conservation at home and on the road.

12:00 p.m. Lunch

1:00 p.m. Exploring Energy Outside the Science Classroom

Energy Literacy Activities – Primary/Elementary

Energy Careers Excursion – Intermediate/Secondary

2:15 p.m. Break

2:30 p.m. Energy Source Explorations (Breakout Sessions)

Coal

Electricity, Circuits, & Storage

Hydrogen

Wind

3:30 p.m. NEED Resources, Q&A, Planning Guide Connections and Evaluation

4:00 p.m. Synthesizing the Conference

Working in grade level groups, participants synthesize the knowledge and process skills showcased during the day to discuss and plan integration into their classrooms.

4:15 p.m. Energy Carnival Reception

Participants will play Energy Carnival Games and earn drink tickets to enjoy beverages during this fun synthesis activity.

5:00 p.m. Dinner (all together)

July 28 Thursday Transportation, Evaluation, and Recognition

6:30 a.m. Breakfast

8:00 a.m. Transportation Resources

Participants explore the nation's leading transportation fuels. Understand your carbon footprint and engage in hands-on activities on fuel efficiency, as well as modeling the energy flow from the sun to an electric vehicle.

8:45 a.m. Synthesizing the Conference

Working in grade level groups, participants synthesize the knowledge and process skills showcased during the week to discuss and plan integration into their classrooms.

9:15 a.m. Exploring NEED's Website and Other Resources

9:45 a.m. What do I get?

Complete your order form for classroom energy resources.

10:00 a.m. Evaluation

10:15 a.m. Planning Your Energy Unit

Have a later flight? Stick around for a little while and work with conference attendees and the facilitators to continue to refine your energy unit.

11:00 a.m. Adjourn