

Three horizontal lines in green, orange, and blue are positioned above the text.

# WELCOME 2023-2024 PROGRAM

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# ESP Program

**Energizing Student Potential** is a collaborative educational initiative designed to **empower students to explore opportunities in STEM fields** and help them discover their own path to innovation through a variety of classroom subjects.

ESP is designed to help educators bring energy into the school and to **provide all the tools and resources necessary** for students and educators to learn together, explore energy together, and teach their local communities about energy while learning about energy careers as well.



# The ESP Program is designed for you to...

- Incorporate the program's energy-focused curriculum and related activities with your students between now and June 2024.
- *Optional* - Work with students to complete an **Energy Innovation Challenge**.
- *Optional* - Host an **Energy Fair** at your school for the local community. Schools will be provided an Energy Fair Kit and small grant.
- *Optional* - Work with NEED to plan for an **Educational Energy Audit** experience for a select team of students. Schools will receive a hands-on set of supplies for the classroom too.



## The Curriculum and Hands-on Kits

NEED curriculum and kits for the program will be showcased throughout the workshop. All curriculum guides and kits are found online at [shop.need.org](http://shop.need.org).

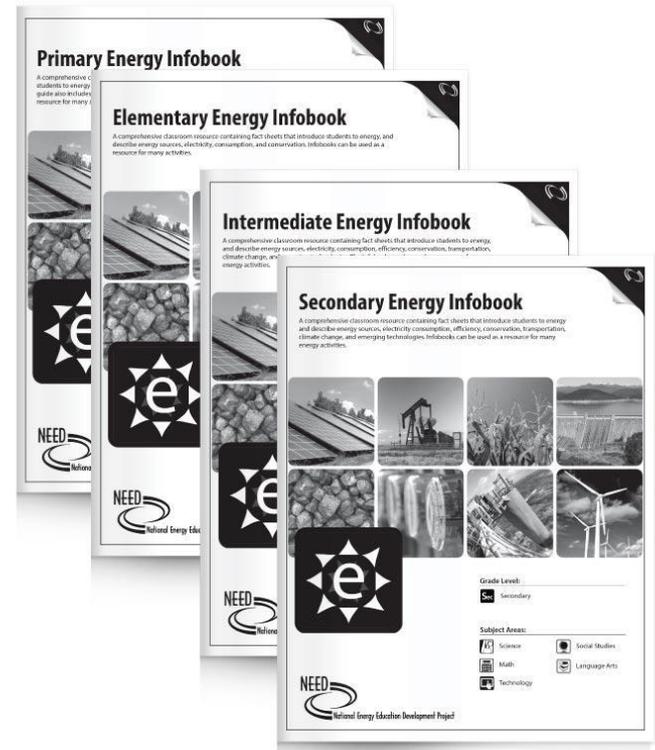
## Standards Correlations and Support

All NEED curriculum supports and is correlated to relevant national standards and state standards. For correlations, visit [www.need.org/curriculumcorrelations](http://www.need.org/curriculumcorrelations).

## Curriculum Guides

NEED has hundreds of teacher and student guides for teaching the science of energy, sources of energy, electricity and transportation, and efficiency and conservation.

All educators participating in the program will receive a class-set of NEED's Energy Infobooks at their selected appropriate grade level. These student readers serve as the text for a comprehensive energy education program.



All NEED curriculum is available for free PDF download or as an e-publication.

# What will you receive?

- Teacher Training Workshops with stipends and sub pay
- Teacher selected energy kits
- Energy Fair kit if hosting an Energy Fair
- Student Resources
- Opportunity to have an Educational Energy Audit
- Opportunity to apply for a mini-grant up to \$400



# Teacher Selected Energy Kits

You may select two energy kits!

Each kit is available at the primary, elementary, intermediate, and secondary level.

View kits at [shop.need.org](http://shop.need.org)

- Science of Energy
- Solar
- Wind
- Hydropower
- Exploring Oil & Natural Gas
- Climate Science

*NEED will be emailing a link to you to make your kit selections.*

**Additional kit opportunity!**  
Energy Efficiency & Conservation kits are available to schools who sign up for an Educational Energy Audit!

# Hands-on Video Resources

NEED YouTube Channel: [www.youtube.com/user/NEEDProject](http://www.youtube.com/user/NEEDProject)



The NEED Project

310 subscribers

CUSTOMIZE CHANNEL

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## Hands-on Energy Experiments! ▶ PLAY ALL

Hands-on STEM and energy-themed NEED activities that students can follow along to and conduct at home!



Spooky Science

The NEED Project  
215 views • 11 months ago



Shake It Up: Making Your Own Ice Cream

The NEED Project  
146 views • 1 year ago



Explore the Science of Roller Coasters

The NEED Project  
167 views • 1 year ago



Lava First Sight - Making a Lava Lamp

The NEED Project  
210 views • 1 year ago



What a Gas!

The NEED Project  
40 views • 1 year ago

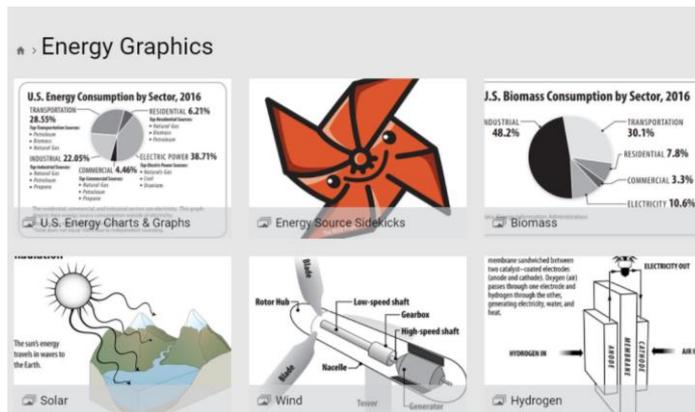
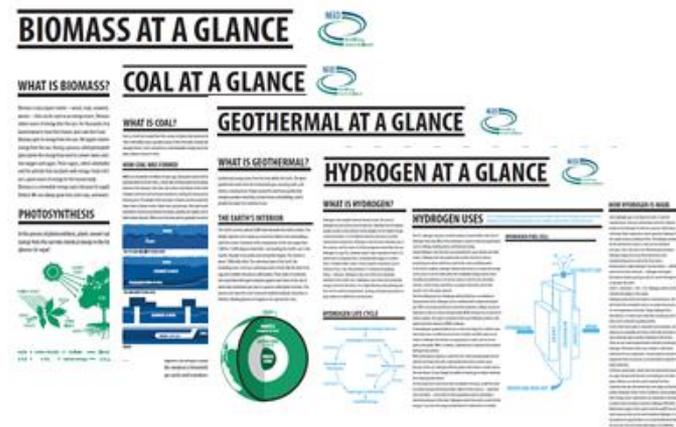
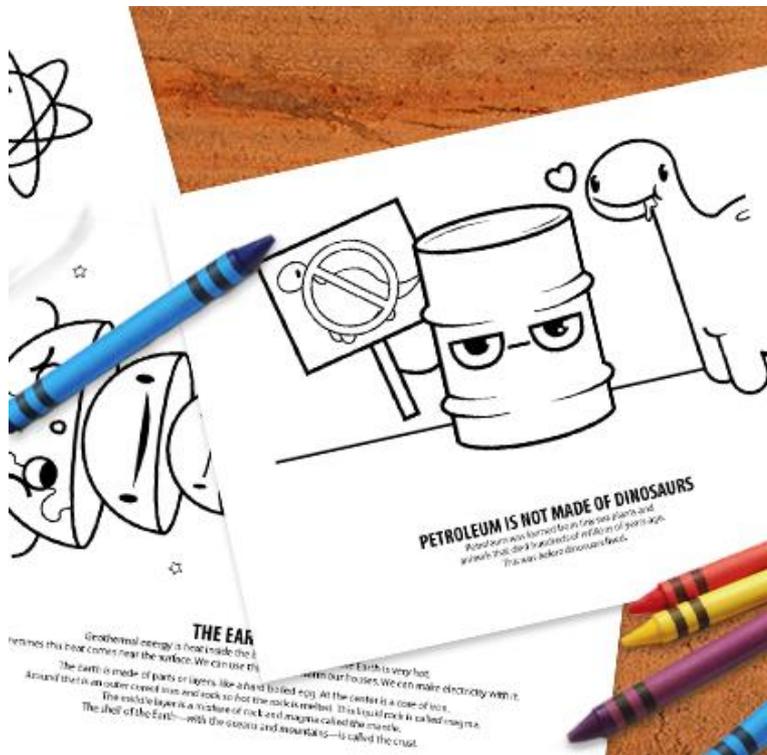
## NEED Tutorials for Hands-on Energy Lessons! ▶ PLAY ALL



# Awesome Extras

PowerPoints · Coloring Pages · Energy Graphics · and more!

[www.need.org/awesomeextras](http://www.need.org/awesomeextras)



# Energy Fair - *Optional*

Work with students, faculty, parents, and community members to plan and implement an **energy-focused STEM project** in your school/community.

Let NEED know the date, time, and location.

NEED will provide you with a link to input your Energy Fair date and details so we may send an Energy Fair Kit to you.



# Energy Fair Kit – What’s Inside?

- Seven Games from **NEED’s Energy Carnival**
- **Facts of Light** station and information that includes light bulb comparisons for students and those attending the Energy Fair
- **Energy House** – Lessons for a small group of students to build and demonstrate an energy efficient home.
- **Energy Linked In Designs** – Students will create Linked In pages for themselves using career information from all partners in order to learn more about natural gas, electric power, refining, petroleum, nuclear, renewables and more.
- **Energy Safety** – Students will create exhibits safety information from all partners in order to learn more about safety in electric power, natural gas and the workplace.
- **Energy Conservation Contract** – Students will complete this activity with their family and will create an exhibit for the Energy Fair to have attendees complete the contract as well.
- **Energy Information Exhibits**– Students will create informational exhibits for attendees to tour. Topics will include:
  - Energy Efficiency and Conservation
  - Nuclear Energy
  - Petroleum
  - Natural Gas
  - Transportation Fuels
  - Electricity
  - Heating and Cooling
  - Hot Water Heating
  - Lighting
  - Wind
  - Solar
  - Plug Loads
- **Bumper Stumpers** – A NEED game to unscramble energy “vanity plates”

# Mini-Grant Application - *Optional*

An opportunity to request up to \$400 in additional classroom grant funds for field trips, supplies, or other resources specific to engaging students in the ESP Program.

NEED will email you a link to apply.

- Include in your request
  - Total amount requested
  - Budget: List items you would like to purchase including costs
  - Who you would like the check made out to
    - School/District
    - Other school organization such as PTO
    - Have NEED purchase materials, you provide links to items requesting
    - Opt for an Amazon eGift card to be emailed to you (must provide receipts of purchases)

# Educational Energy Audit

## *Optional*

- Virtual or in-person educational energy audit options!
- Students explore the school laboratory learning about energy efficiency and conservation utilizing audit tools such a light meter, hygrometer, IR thermometer, and Kill A Watt®
- Participating schools will receive an energy efficiency and conservation kit!

NEED will email you a link to sign up.

\*Keep in mind your school calendar to not schedule on a day that school is not in session, state testing, etc.



# ESP Innovation Challenge

## The Task

Build upon the energy and climate lessons you may have already explored OR introduce climate science to your students.

Students will work together as a team to create a digital project and short pitch to discuss how your community could begin to combat climate change. The digital presentation or video should be no more than 3 minutes.

Students can present their “pitches” to judges and their peers in a virtual “Think Tank” and take part in some hands-on energy fun.

# What we need from you

- ✓ Teach energy in your classroom, club, or afterschool program.
- ✓ Have participating students complete the ESP Innovation Challenge.  
Consider submitting a Youth Awards project by April 15<sup>th</sup> to receive local and national recognition for your program!
- ✓ Evaluations – please complete training evaluations and the end of program year teacher and student evaluation.

## Stay in touch!

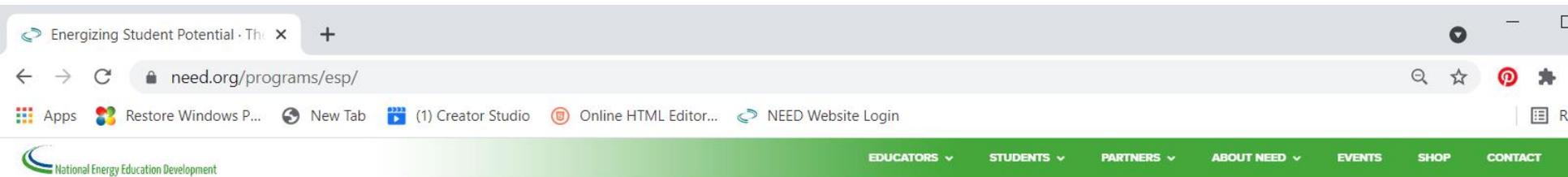
Share with us any questions or concerns you have about the program. We're here to assist and support you and your students!

Share photos of your students engaged in the lessons, Energy Fair photos, Educational Energy Audit photos, etc. Use #energizingSTEM



# Where is the ESP Program Information?

[www.need.org/esp](http://www.need.org/esp)



## NEED's Energizing Student Potential (ESP) Program

Energizing Student Potential is a program designed to infuse energy into the STEM classroom. The program is available to schools in Illinois, Indiana, Maryland and the District of Columbia. ESP is sponsored by: The Exelon Foundation, ComEd, Pepco, Nicor Gas, Peoples and North Shore Gas, BGE, and BP.

Energizing Student Potential is a collaborative educational initiative designed to empower students to explore opportunities in STEM fields and help them discover their own path to innovation through a variety of classroom subjects. ESP is designed to help educators bring energy into the school and to provide all the tools and resources necessary for students and educators to learn together, explore energy together, and teach their local communities about energy. Teacher Training Workshops on a variety of energy topics – including the Science of Energy, Forms and Transformations, Energy Sources, Electricity, Transportation, Climate Science, Energy Efficiency and Energy Careers.

Select your community for more information:

<p><b>ESP Illinois</b></p> 	<p><b>ESP DC, Prince George's County (MD), Montgomery County (MD)</b></p> 	<p><b>ESP BGE</b></p> 	<p><b>ESP Generation</b></p> 
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# We're Social!

Use **#energizingSTEM** when you post to social media

The screenshot shows the Facebook interface for the 'Energizing Student Potential: Educators Group'. The page header includes the Facebook logo, the group name, and a search bar. The main content area features a large blue banner with the 'ESP' logo and the tagline 'energizing student potential'. Below the banner are several circular images showing students engaged in STEM activities. The left sidebar contains navigation options such as 'About', 'Discussion', 'Chats', 'Members', 'Events', 'Videos', 'Photos', 'Group Insights', and 'Moderate Group'. The right sidebar displays the group's profile, including the name 'The NEED Project', 3,300 likes, and a 'Shop Now' button. Below this, there are sections for 'ADD MEMBERS', 'MEMBERS' (115 Members), and 'SUGGESTED MEMBERS'. The bottom of the page features a navigation bar with the 'ESP' logo and the tagline 'energizing student potential'.

-  @NEEDProject
-  @theneedproject
-  @NEED\_Project

# ESP Program Sponsors

