

**Looking for project-based learning activities to incorporate energy into your classroom or program? Explore these K-12 resources to get started today.** The Office of Energy Efficiency and Renewable Energy (EERE) has the following featured lesson plans, labs, projects, videos and other activities for grades K-12 on energy-related topics. Download or order resources today. For a complete listing, visit [energy.gov/eere/education/teach-and-learn](http://energy.gov/eere/education/teach-and-learn)

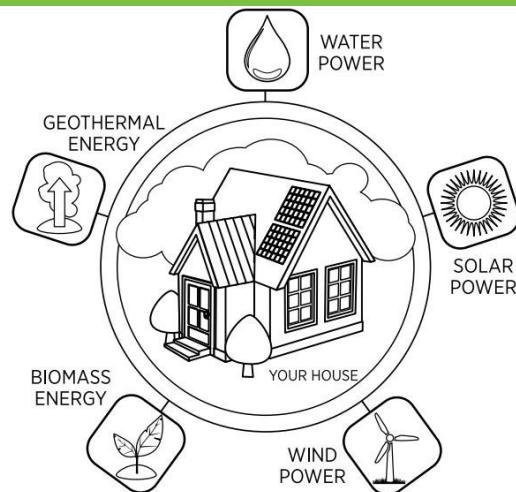
## Energy Literacy Framework

The *Energy Literacy: Essential Principles and Fundamental Concepts for Energy Education* framework identifies seven Essential Principles and a set of Fundamental Concepts that, if understood and applied, will help individuals and communities make informed energy decisions. Improve and develop your energy curricula. Download a free copy from the website or order sets.

[energy.gov/energyliteracy](http://energy.gov/energyliteracy)

- 1** Energy is a physical quantity that follows precise natural laws. 
- 2** Physical processes on Earth are the result of energy flow through the Earth system. 
- 3** Biological processes depend on energy flow through the Earth system. 
- 4** Various sources of energy can be used to power human activities, and often this energy must be transferred from source to destination. 
- 5** Energy decisions are influenced by economic, political, environmental, and social factors. 
- 6** The amount of energy used by human society depends on many factors. 
- 7** The quality of life of individuals and societies is affected by energy choices. 

Seven Energy Literacy Principles. Photo: *Energy Literacy: Essential Principles and Fundamental Concepts for Energy Education*



**Be part of the Clean Energy Generation!**

Color in types of Renewable Energy. Photo: Cover of EERE's Get Current Coloring Book, created by National Renewable Energy Laboratory.

## Activity and Coloring Books

The *Get Current* Coloring and Activity Books are a unique set to get students and kids engaged with energy. The coloring book introduces renewable energy sources and explains how they are used to generate clean reliable electricity. Geared for middle school and above, the activity book features games and puzzles designed to teach kids about renewable energy and energy efficiency through mazes, crosswords, word searches and other fun activities.

[energy.gov/eere/education/teach-and-learn](http://energy.gov/eere/education/teach-and-learn)

Order a copy of the Energy Literacy Framework, Coloring Book, Activity Book or Energy Action List by emailing [energyliteracy@ee.doe.gov](mailto:energyliteracy@ee.doe.gov).

## Energy Action List

Some of the simplest ways to save energy can be done by kids. This checklist includes easy energy-efficient practices such as turning off a light and unplugging phone chargers and video game consoles. Download the Action List and get started saving energy today.

[energy.gov/eere/education/teach-and-learn](http://energy.gov/eere/education/teach-and-learn)

# Lessons and Activities

## CLEAN

The Climate Literacy & Energy Awareness Network (CLEAN) has a collection of grades 6-16 educational resources meant to help students understand the core ideas in climate and energy science. These resources have been linked to the essential climate and energy literacy principles. The content is searchable by grade, subject, principle and resource type. [cleanet.org](http://cleanet.org)

## NARA

The Northwest Advanced Renewables Alliance (NARA) Energy Literacy Principles Matrix is a collection of educational resources such as lesson plans, datasets, videos, images, activities, software and modules. All of the resources align to the energy literacy principles and concepts. [energyliteracyprinciples.org](http://energyliteracyprinciples.org)

## Harnessed Atom

The Harnessed Atom is a new middle school science, technology, engineering, and mathematics (STEM) curriculum extension that focuses on nuclear science and energy. It offers teachers accurate, unbiased, and up-to-date information on the roles that energy and nuclear science play in our lives. The curriculum includes essential principles and fundamental concepts of energy science. [energy.gov/ne/services/harnessed-atom](http://energy.gov/ne/services/harnessed-atom)

## NEED

The National Energy Education Development (NEED) project has a large library of energy curricula on a wide range of energy topics and is differentiated between primary, elementary, intermediate, and secondary levels. Find the most useful curricula for your classroom today. [need.org](http://need.org)



Solar Powered Car. Photo: Courtesy of Energy.Gov

## Videos and Games

### Energy 101 Videos

The Energy 101 videos are a series from the U.S. Department of Energy, featuring a variety of energy related topics including wind, solar, geothermal, electric vehicles, biofuels, fuel cells and hydropower. Learn the fundamental concepts behind renewable energy sources and energy efficiency through these short videos.

[energy.gov/videos](http://energy.gov/videos)

### Energy Elf Game

This online interactive game lets kids explore how to save energy in the house from the Power Gobblin'. (Note: You must have Adobe Flash to play this game.)

[eere.energy.gov/education/games/eere.html](http://eere.energy.gov/education/games/eere.html)

### Science Beyond the Boundaries

Science Beyond the Boundaries is an international network of museums that provide resources for educators. The introductory videos describe the "how" of renewable technologies in energy and supplement DOE's Energy 101 videos.

[sciencebeyondtheboundaries.com/  
EnergyVideos.html](http://sciencebeyondtheboundaries.com/EnergyVideos.html)