



## ENERGY DAY CURRICULUM IDEAS-SCIENCE

Topic	Elementary	Middle School	High School
Sc1 Solar Cooking	X	X	X
Sc2 Hot Stuff	X	X	X
Sc3 Energy Scavengers	X	X	
Sc4 Investigating Conductivity		X	X
Sc5 Building Business		X	X
Sc6 Fossil Fuel Facts		X	X
Sc7 Fuel Cell Facts		X	X
Sc8 Fission Fuel Facts		X	X
Sc9 Food Fuel Facts			X
Sc10 Farm Fuel Facts			X

### Sc1 Solar Cooking

Cook with a solar cooker. Design a solar cooker and plan an experiment to test different variables. How can your cooker be improved? Investigate how other countries use solar power to cook.

#### Resources

[http://www.nrel.gov/education/solar\\_oven.html](http://www.nrel.gov/education/solar_oven.html)

### Sc2 Hot Stuff!

Plan and make a solar water heating device. Compare materials and discuss how your device could be improved.

#### Resources

### Sc3 Energy Scavengers

Create a scavenger hunt in your school to find all the different ways energy is used, saved and wasted. Conduct the hunt with younger students.

#### Resource sheets

### Sc4 Investigating Conductivity

Test the thermal conductivity of various common building materials. Design an experiment to test different types of materials. Compare your results with your classmates.

#### Resources



## ENERGY DAY CURRICULUM IDEAS-SCIENCE

### **Sc5 Building Business**

Visit the boiler room of your school to find all the ways energy is used there. Discuss with the facilities manager or custodial staff how your school's building saves or wastes energy.

### **Sc6 Fossil Fuel Facts**

Find out what environmental problems result from the burning of fossil fuels. Use maps to trace the local, regional or national effects.

Trace an oil spill and its environmental effects and cost.

Resources, articles, map links

<http://www.nationalgeographic.com/xpeditions/lessons/14/g68/trythisoil.html>

Articles

<http://www.nationalgeographic.com/xpeditions/lessons/07/g912/co2.html>

<http://www.nationalgeographic.com/xpeditions/lessons/08/g68/brainpopphoto.html>

### **Sc7 Fuel Cell Facts**

Study how fuel cells produce energy. Research how fuel cells are being used in Connecticut. Determine three good applications of fuel cells and explain why you chose those applications.

Resources

### **Sc8 Fission Fuel Facts**

What are the effects of a nuclear accident?

<http://www.nationalgeographic.com/xpeditions/lessons/14/g68/fallout.html>

<http://www.nationalgeographic.com/xpeditions/lessons/18/g912/nuclearwaste.html>

<http://magma.nationalgeographic.com/ngm/0207/feature1/index.html>

### **Sc9 Food Fuel Facts**

Investigate the calories needed to make various foods. Compare two, such as chicken and beef. Trace the energy used to create the main ingredients of several foods.

Resources



## ENERGY DAY CURRICULUM IDEAS-SCIENCE

### **Sc10 Farm Fuel Facts**

Investigate the uses of water and fertilizers in agribusiness. How has water use changed over the years? What effects has technology had on crops and harvests in the last century? How do you think it will change in the next century?