

2012-2013

Energy Jeopardy

A trivia game useful for reinforcing the information presented in your energy unit.



**LEADING
NATIONS**

**FAMOUS
AMERICANS**

**ENERGY
INITIALS**

**EFFICIENCY
AND
CONSERVATION**

**MORE
MPG'S**

**SCIENCE
OF ENERGY**

\$200

\$200

\$200

\$200

\$200

\$200

\$400

\$400

\$400

\$400

\$400

\$400

\$600

\$600

\$600

\$600

\$600

\$600



Grade Level:

- Elementary
- Intermediate
- Secondary

Subject Areas:

- Science
- Social Studies
- Math
- Language Arts



National Energy Education Development Project



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NEED Mission Statement

The mission of The NEED Project is to promote an energy conscious and educated society by creating effective networks of students, educators, business, government and community leaders to design and deliver objective, multi-sided energy education programs.

Teacher Advisory Board Statement

In support of NEED, the national Teacher Advisory Board (TAB) is dedicated to developing and promoting standards-based energy curriculum and training.

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Energy Data Used in NEED Materials

NEED believes in providing the most recently reported energy data available to our teachers and students. Most statistics and data are derived from the U.S. Energy Information Administration's Annual Energy Review that is published in June of each year. Working in partnership with EIA, NEED includes easy to understand data in our curriculum materials. To do further research, visit the EIA web site at www.eia.gov. EIA's Energy Kids site has great lessons and activities for students at www.eia.gov/kids.



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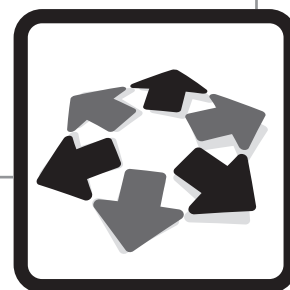
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ENERGY INITIALS	EFFICIENCY AND CONSERVATION	MORE MPG'S
\$200	\$200	\$200
\$400	\$400	\$400
\$600	\$600	\$600

Energy Jeopardy

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Correlations to National Science Education Standards: Grades 5-8

This book has been correlated to National Science Education Content Standards.

For correlations to individual state standards, visit www.NEED.org.

Content Standard B | *PHYSICAL SCIENCE*

▪ **Transfer of Energy**

- Energy is a property of many substances and is associated with heat, light, electricity, mechanical motion, sound, nuclei, and the nature of a chemical. Energy is transferred in many ways.
- The sun is a major source of energy for changes on the Earth's surface. The sun loses energy by emitting light. A tiny fraction of that light reaches the Earth, transferring energy from the sun to the Earth. The sun's energy arrives as light with a range of wavelengths, consisting of visible light, infrared, and ultraviolet radiation.

Content Standard D | *EARTH AND SPACE SCIENCE*

▪ **Structure of the Earth System**

- The solid Earth is layered with a lithosphere; hot, convecting mantle; and dense, metallic core.
- Water, which covers the majority of Earth's surface, circulates through the crust, oceans, and atmosphere in what is known as the "water cycle." Water evaporates from the Earth's surface, rises and cools as it moves to higher elevations, condenses as rain or snow, and falls to the surface where it collects in lakes, oceans, soil, and in rocks underground.

Content Standard E | *SCIENCE AND TECHNOLOGY*

▪ **Understandings about Science and Technology**

- Many different people in different cultures have made and continue to make contributions to science and technology.
- Technological solutions have intended benefits and unintended consequences. Some consequences can be predicted, others cannot.



Correlations to National Science Education Standards: Grades 9-12

This book has been correlated to National Science Education Content Standards.

For correlations to individual state standards, visit www.NEED.org.

Content Standard D | *EARTH AND SPACE SCIENCE*

▪ **Energy in the Earth System**

- Earth systems have internal and external sources of energy, both of which create heat. The sun is the major external source of energy. Two primary sources of internal energy are the decay of radioactive isotopes and the gravitational energy from the Earth's original formation.
- Heating of Earth's surface and atmosphere by the sun drives convection within the atmosphere and oceans, producing winds and ocean currents.

Content Standard F | *SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES*

▪ **Natural Resources**

- Human populations use resources in the environment in order to maintain and improve their existence. Natural resources have been and will continue to be used to maintain human populations.
- The Earth does not have infinite resources; increasing human consumption places severe stress on the natural processes that renew some resources, and it depletes those resources that cannot be renewed.

▪ **Environmental Quality**

- Materials from human societies affect both physical and chemical cycles of the Earth.

▪ **Science and Technology in Local, National, and Global Challenges**

- Science and technology are essential social enterprises, but alone they can only indicate what can happen, not what should happen. The latter involves human decisions about the use of knowledge.



Teacher Guide

A trivia game useful for reinforcing the information presented in your energy unit.

Background

Energy Jeopardy is designed like the television game show using energy as the theme.

Time

One to two 45 minute class periods.

Materials

- One master or digital copy of the *Jeopardy* and *Double Jeopardy* game boards
- One master for each of the *Jeopardy Answers*
- One master for each of the *Double Jeopardy Answers*
- One master of the *Final Jeopardy Answers*
- The list of *Jeopardy Answers and Questions, Double Jeopardy Answers and Questions, and Final Jeopardy Categories*
- Scissors, marker, blank sheets of paper, projector, and screen
- Digital PowerPoint version of game
- Mini marker boards for groups with a marker and eraser

Preparation

- Make masters of the game boards, *Jeopardy* and *Double Jeopardy Answers*, and the page containing the *Final Jeopardy Answers* (page 22).
- Make a paper copy of the *Answers and Questions*.
- Gather materials listed above.
- OR Download the PowerPoint version from www.NEED.org

Procedure *NON-POWERPOINT PLAY*

Step One—Preparing for Energy Jeopardy

- Take the answer masters to *Jeopardy* and cut them apart. Group the answer cards together according to category.
- Choose five categories to be used in the game.
- Choose five answers from each category. Save the unused categories and answers for future use.
- Choose point values for the five answers you've chosen (point values should range from 200 for the easiest answer to 1000 for the hardest answer). Write these point values on the cards with the marker, put the cards in order, and clip them together.

Step Two—Preparing for Double Energy Jeopardy

- Take the answer masters for *Double Jeopardy* and cut them apart. Group the answer cards together according to category.
- Choose five categories to be used in the game.
- Choose five answers for each category. Do NOT assign point values to the *Double Jeopardy* answers.

Step Three—Preparing for Final Energy Jeopardy

- Decide which *Final Jeopardy* clue you want to use. Clip this to a regular sheet of paper that you can use to cover the answer when the time comes. Put this aside so that it doesn't get mixed in with the *Jeopardy* or *Double Jeopardy* answers.

Step Four—Organizing Energy Jeopardy Teams

- Divide the class into five teams. Assign each team two of the *Double Jeopardy* energy sources. Decide where the teams will sit when it is time to play the game.

Before You Begin

- Each team should choose a spokesperson. The spokesperson will be responsible for buzzing in and for writing down the team's response to an answer.
- After the answer is read, you will have 15 seconds to confer with your teammates and write down a response in the form of a question. The spokesperson should stand when he/she has finished writing down the team's response. I will call on each spokesperson to give a response. Remember, your response should always be in the form of a question. The first time your team forgets the proper format, your response will be accepted. The next time, your team will lose the point value of the answer.
- If the response is correct, the team will receive the point value of the answer; if the response is incorrect, the team will lose the point value of the answer. The spokesperson who stood up first will receive control of the board. This team will choose the next category and dollar amount.

Playing the Game

Step One—Selecting the Double Energy Jeopardy Answers

- Distribute the *Double Jeopardy* cards to each team with the following instructions:

Each team will determine the answer sequence for two Double Jeopardy categories.

Each team has been given five cards for two energy sources. Decide the level of difficulty for each of the five answers. Put the answers in order starting with the easiest. Use a master marker to write 400 on the easiest answer, 800 on the next answer, and so on until you reach the most difficult answer, which is worth 2000. Clip the answers together with the 400 answers on top and bring them to me.

Step Two—Instructions for Playing Round One Energy Jeopardy

- Read the categories you have chosen aloud and fill them in on the game board. Next, read the *Before You Begin* instructions on page 5 to the class.
- At the end of the class, record the team scores. Try to get through all the answers in one period.

Step Three—Instructions for Playing Double Energy Jeopardy (Day 2)

- Divide the answers into renewables and nonrenewables and play two rounds of *Double Jeopardy*, filling in the categories at the top of the game board for each round. The team with the lowest score begins *Double Jeopardy*. Remind the teams that they cannot respond to the answers in the categories they put together. Play *Double Jeopardy* for about 10 minutes with nonrenewables and 10 minutes with renewables.

Step Four—Playing Final Energy Jeopardy

- At the end of *Double Jeopardy*, teams with points remaining can place a wager on *Final Jeopardy*. Reveal the *Final Jeopardy* category. Ask the teams to make their wagers.
- When the wagers are complete, reveal the answer. The host (teacher or student assigned to lead the game) should read the answer and give the teams 30 seconds to write their response. Remind the teams to make sure their response is in the form of a question. Start with the team with the lowest score and determine if the responses are correct. After the *Final Jeopardy* scores are tabulated, tally the final score for each team and declare a winner.

Playing the Game POWERPOINT PLAY

1. Organize *Energy Jeopardy* teams by dividing the class into several teams. Decide where teams will sit when it is time to play.
2. Bring up the game home screen. Read the *Before You Begin* instructions on page 5 to the class.
3. Play through the game, recording team scores. Try to get through as many answers as possible, making your stopping point, if need be.
4. When it is time for *Final Jeopardy*, teams with points remaining can place a wager. Ask teams to make their wagers.
5. When the wagers are complete, reveal the answer. The host (teacher or student assigned to lead the game) should read the answer and give the teams 30 seconds to write their response. Remind the teams to make sure their response is in the form of a question. Start with the team with the lowest score and determine if the responses are correct. After the *Final Jeopardy* scores are tabulated, tally the final score for each team and declare a winner.

PowerPoint Version Tips

1. Clicking the NEED logo on any slide links back to the home screen with categories and point values.
2. Clicking anywhere else on the slide will advance to the next slide, in order. Use caution as this might reveal a question or answer too soon.
3. Clicking a link on the first slide will take you directly to the specific category clue you desire. Once that link has been viewed, the color of the link will change from yellow to blue.
4. To restart the game, close without saving and re-open.
5. The document can be edited with other answers and questions of your choice or from this guide for more variety.

Jeopardy Answers and Questions

LEADING NATIONS

- A Asia's largest consumer of petroleum
What is China?
- B Largest consumer of energy in the world today
What is the United States?
- C This Middle East nation has the largest known reserves of petroleum
What is Saudi Arabia?
- D The leading supplier of electricity to the U.S.
What is Canada?
- E Europe's leading nuclear power nation
What is France?
- F Western Europe's leading producer of petroleum
What is Great Britain?

FAMOUS AMERICANS

- A He invented the light bulb
Who was Thomas Edison?
- B His motorized vehicle created a demand for gasoline
Who was Henry Ford?
- C They were leaders in early motorized flight
Who were the Wright Brothers?
- D This German-born American is known for the equation $E=MC^2$
Who was Albert Einstein?
- E He invented the steam boat
Who was Robert Fulton?
- F He drilled the first commercial oil well in 1859
Who was Edwin Drake?

ENERGY INITIALS

- A MPG
What is miles per gallon?
- B Btu
What is British thermal unit?
- C kWh
What is a kilowatt-hour?
- D OPEC
What is the Organization of Petroleum Exporting Countries?
- E PV
What is photovoltaic?
- F OCS
What is the Outer Continental Shelf?

EFFICIENCY AND CONSERVATION

- A Turn these off when not in use
What are lights or appliances?
- B Set this for day and night and for the season
What is a thermostat?
- C Two appliances that should be run only when they're fully loaded
What are a dishwasher and washing machine?
- D Two items that seal cracks around windows and doors
What are caulking and weather-stripping?
- E Second to heating and cooling for consuming energy at home
What are appliances and lighting?
- F A bulb that uses one-fourth the energy of an incandescent bulb
What is a compact fluorescent bulb?

MORE MPG'S

- A Two or more people traveling to work together
What is a carpool?
- B The fuel filter and these two filters should be checked regularly
What are the air and oil filters?
- C Check this, in pounds per square inch, every week
What is tire pressure?
- D These tires increase mileage by reducing friction with the road
What are radial tires?
- E The change in vehicles that increased gas mileage the most
What was reduction in weight?
- F The number of miles traveled divided by the number of gallons of gas used
What is miles per gallon?

SCIENCE OF ENERGY

- A Endothermic
What is a reaction that absorbs heat?
- B Exothermic
What is a reaction that gives off heat?
- C Radiant energy
What is light?
- D The energy in batteries is stored as this form of energy
What is chemical?
- E Molecules in this state have a definite volume but not a definite shape
What is a liquid?
- F The way heat travels through solids
What is conduction?

Jeopardy Answers and Questions

TRANSPORTATION FUELS

- A Fuel from corn
What is ethanol?
- B Fuel from soybeans and used grease
What is biodiesel?
- C Fuel made through electrolysis
What is hydrogen?
- D Car powered by a gasoline engine and electric motor
What is a hybrid electric?
- E Fossil fuel used in indoor vehicles
What is propane?
- F Pressurized fossil fuel used in many buses and cars
What is CNG (compressed natural gas)?

ELECTRICITY

- A Unit of measure of electric current
What is ampere (amp)?
- B Unit of measure of potential difference
What is volt?
- C Closed path through which electricity flows
What is a circuit?
- D Part of a circuit that does work
What is a load?
- E Unit of measure of electric power
What is a watt (kilowatt)?
- F Electrons jumping from one object to another
What is static electricity?

Double Jeopardy Answers and Questions

PETROLEUM

- A Transportation**
What is the major use of petroleum?
- B Almost half of all petroleum is refined into this product**
What is gasoline?
- C Texas, Alaska, California, North Dakota, and Oklahoma**
What are the top oil-producing states?
- D One-half of total crude oil supply, mostly from Canada, Mexico, and Saudi Arabia**
How much oil do we import?
- E Gasoline, heating fuel, and kerosene**
What are three petroleum products?
- F Forty-two gallons**
How many gallons are in a barrel of oil?

COAL

- A World leader of known reserves**
What is the United States?
- B Trains**
What is the main transportation method for coal?
- C Wyoming, West Virginia, and Kentucky**
What are the top coal-producing states?
- D The major use of coal is to produce this**
What is electricity?
- E Two-thirds of U.S. coal is mined by this method**
What is surface mining?
- F The oldest type of coal with the highest energy content**
What is anthracite coal?

PROPANE

- A C₃H₈**
What is the chemical formula for propane?
- B Dr. Walter Snelling in 1911**
Who discovered propane?
- C Propane at standard temperature and pressure**
What is a gas?
- D Takes up 1/270 the space**
What is liquid propane versus gaseous propane?
- E Propane under moderate pressure or cooled to -45° Fahrenheit**
What is a liquid?
- F Mainly in rural areas**
Where is propane used?

URANIUM

- A The major use of uranium today**
What is the production of electricity?
- B Nuclei split to produce energy in this process**
What is fission?
- C The part of the power plant where the nuclear reaction takes place**
What is the reactor?
- D The isotope of uranium that splits**
What is U-235?
- E The particle that causes fission when it strikes an atom of U-235**
What is a neutron?
- F About 20 percent of total electricity in the U.S.**
How much electricity does uranium supply?

NATURAL GAS

- A By thousands of miles of pipelines**
What is the main transportation method for natural gas?
- B The major use of natural gas in homes**
What is heating?
- C By the cubic foot**
What is the method for measuring natural gas?
- D The main ingredient in natural gas**
What is methane?
- E Plastics, fertilizer, and laundry detergents**
What are three things made from natural gas?
- F Texas, Wyoming, and Louisiana**
What are the three leading natural gas producing states?

BIOMASS

- A Wood, garbage, seaweed, and animal waste**
What are examples of biomass?
- B Photosynthesis**
What process gives biomass its energy?
- C Energy in biomass is stored in this form**
What is chemical energy?
- D These burn garbage to make electricity**
What are waste-to-energy plants?
- E Biomass can be made into this alcohol fuel for vehicles**
What is ethanol?
- F Ethanol is mixed with this petroleum product to make E-10 and E-85**
What is gasoline?

Double Jeopardy Answers and Questions

GEO THERMAL

- A Therme**
What is the Latin word for heat?
- B The outermost layer of the Earth**
What is the crust?
- C Ring of Fire**
What is the area of high temperature geothermal resources around the Pacific Ocean?
- D Hawaii and California**
Which states have the most active geothermal resources?
- E About 50 degrees Fahrenheit year-round**
What is the temperature of the Earth a few feet underground?
- F Devices that use the Earth's constant temperature to heat and cool buildings**
What are geothermal exchange units?

HYDROPOWER

- A Water cycle**
What is the flow of water between the Earth and the atmosphere?
- B Reservoir**
What is the storage area for water behind a hydro dam?
- C Grinding wheat**
What were early water wheels used for?
- D Water spins the blades of this device to power a generator**
What is a turbine?
- E Five to ten percent of total production**
What is hydropower's contribution to U.S. electricity production?
- F Washington**
What is the top hydropower producing state?

SOLAR

- A The sun's energy is produced in this process**
What is nuclear fusion?
- B Radiant Energy**
In what form does the sun's energy reach the Earth?
- C Eight minutes**
How long does it take for the sun's energy to reach the Earth?
- D A device that converts radiant energy into electricity**
What is a photovoltaic (PV) cell?
- E A device that converts radiant energy into heat**
What is a solar collector?
- F Tiny bundles of light**
What are photons?

WIND

- A Grind wheat and pump water**
What are tasks that early windmills performed?
- B One to two acres**
How much land is needed for a wind turbine?
- C Wind farm**
What is a cluster of wind turbines called?
- D Three-fourths of the time**
What is the average operating time of a wind turbine?
- E Texas**
What state is the top producer of wind energy?
- F Uneven heating of the Earth's surface**
How is wind produced?

Jeopardy Board

200	200	200	200	200
400	400	400	400	400
600	600	600	600	600
800	800	800	800	800
1000	1000	1000	1000	1000

Double Jeopardy Board

400	400	400	400	400
800	800	800	800	800
1200	1200	1200	1200	1200
1600	1600	1600	1600	1600
2000	2000	2000	2000	2000

Jeopardy Answers

<p>LEADING NATIONS A</p> <p>Asia's largest consumer of petroleum</p>	<p>FAMOUS AMERICANS A</p> <p>He invented the light bulb</p>
<p>LEADING NATIONS B</p> <p>Largest consumer of energy in the world today</p>	<p>FAMOUS AMERICANS B</p> <p>His motorized vehicle created a demand for gasoline</p>
<p>LEADING NATIONS C</p> <p>This Middle East nation has the largest known reserves of petroleum</p>	<p>FAMOUS AMERICANS C</p> <p>They were leaders in early motorized flight</p>
<p>LEADING NATIONS D</p> <p>The leading supplier of electricity to the U.S.</p>	<p>FAMOUS AMERICANS D</p> <p>This German-born American is known for the equation $E=MC^2$</p>
<p>LEADING NATIONS E</p> <p>Europe's leading nuclear power nation</p>	<p>FAMOUS AMERICANS E</p> <p>He invented the steam boat</p>
<p>LEADING NATIONS F</p> <p>Western Europe's leading producer of petroleum</p>	<p>FAMOUS AMERICANS F</p> <p>He drilled the first commercial oil well in 1859</p>

Jeopardy Answers

ENERGY INITIALS A	EFFICIENCY AND CONSERVATION A
MPG	Turn these off when not in use
ENERGY INITIALS B	EFFICIENCY AND CONSERVATION B
Btu	Set this for day and night and for the season
ENERGY INITIALS C	EFFICIENCY AND CONSERVATION C
kWh	Two appliances that should be run only when they're fully loaded
ENERGY INITIALS D	EFFICIENCY AND CONSERVATION D
OPEC	Two items that seal cracks around windows and doors
ENERGY INITIALS E	EFFICIENCY AND CONSERVATION E
PV	Second to heating and cooling for consuming energy at home
ENERGY INITIALS F	EFFICIENCY AND CONSERVATION F
OCS	A bulb that uses one-fourth the energy of an incandescent bulb

Jeopardy Answers

<p>MORE MPG'S A</p> <p>Two or more people traveling to work together</p>	<p>SCIENCE OF ENERGY A</p> <p>Endothermic</p>
<p>MORE MPG'S B</p> <p>The fuel-filter and these two filters should be checked regularly</p>	<p>SCIENCE OF ENERGY B</p> <p>Exothermic</p>
<p>MORE MPG'S C</p> <p>Check this, in pounds per square inch, every week</p>	<p>SCIENCE OF ENERGY C</p> <p>Radiant energy</p>
<p>MORE MPG'S D</p> <p>These tires increase mileage by reducing friction with the road</p>	<p>SCIENCE OF ENERGY D</p> <p>The energy in batteries is stored as this form of energy</p>
<p>MORE MPG'S E</p> <p>The change in vehicles that increased gas mileage the most</p>	<p>SCIENCE OF ENERGY E</p> <p>Molecules in this state have a definite volume but not a definite shape</p>
<p>MORE MPG'S F</p> <p>The number of miles traveled divided by the number of gallons of gas used</p>	<p>SCIENCE OF ENERGY F</p> <p>The way heat travels through solids</p>

Jeopardy Answers

TRANSPORTATION FUELS A	ELECTRICITY A
Fuel from corn	Unit of measure of electric current
TRANSPORTATION FUELS B	ELECTRICITY B
Fuel from soybeans and used grease	Unit of measure of potential difference
TRANSPORTATION FUELS C	ELECTRICITY C
Fuel made through electrolysis	Closed path through which electricity flows
TRANSPORTATION FUELS D	ELECTRICITY D
Car powered by a gasoline engine and electric motor	Part of a circuit that does work
TRANSPORTATION FUELS E	ELECTRICITY E
Fossil fuel used in indoor vehicles	Unit of measure of electric power
TRANSPORTATION FUELS F	ELECTRICITY F
Pressurized fossil fuel used in many buses and cars	Electrons jumping from one object to another

Jeopardy Answers

PETROLEUM A	COAL A
Transportation	World leader of known reserves
PETROLEUM B	COAL B
Almost half of all petroleum is refined into this product	Trains
PETROLEUM C	COAL C
Texas, Alaska, California, North Dakota, and Oklahoma	Wyoming, West Virginia, and Kentucky
PETROLEUM D	COAL D
One-half of total crude oil supply mostly from Canada, Mexico, and Saudi Arabia	The major use of coal is to produce this
PETROLEUM E	COAL E
Gasoline, heating fuel, and kerosene	Two-thirds of U.S. coal is mined by this method
PETROLEUM F	COAL F
Forty-two gallons	The oldest type of coal with the highest energy content

Double Jeopardy Answers

PROPANE A	URANIUM A
C_3H_8	The major use of uranium today
PROPANE B	URANIUM B
Dr. Walter Snelling in 1911	Nuclei split to produce energy in this process
PROPANE C	URANIUM C
Propane at standard temperature and pressure	The part of the power plant where the nuclear reaction takes place
PROPANE D	URANIUM D
Takes up 1/270 the space	The isotope of uranium that splits
PROPANE E	URANIUM E
Propane under moderate pressure or cooled to -45°F	The particle that causes fission when it strikes an atom of U-235
PROPANE F	URANIUM F
Mainly in rural areas	About 20 percent of total electricity in the U.S.

Double Jeopardy Answers

NATURAL GAS A	BIOMASS A
By thousands of miles of pipelines	Wood, garbage, seaweed, and animal waste
NATURAL GAS B	BIOMASS B
The major use of natural gas in homes	Photosynthesis
NATURAL GAS C	BIOMASS C
By the cubic foot	Energy in biomass is stored in this form
NATURAL GAS D	BIOMASS D
The main ingredient in natural gas	These burn garbage to make electricity
NATURAL GAS E	BIOMASS E
Plastics, fertilizer, and laundry detergents	Biomass can be made into this alcohol fuel for vehicles
NATURAL GAS F	BIOMASS F
Texas, Wyoming, and Louisiana	Ethanol is mixed with this petroleum product to make E-10 and E-85

Double Jeopardy Answers

<p>GEO THERMAL A</p> <p>Therme</p>	<p>HYDROPOWER A</p> <p>Water cycle</p>
<p>GEO THERMAL B</p> <p>The outermost layer of the Earth</p>	<p>HYDROPOWER B</p> <p>Reservoir</p>
<p>GEO THERMAL C</p> <p>Ring of Fire</p>	<p>HYDROPOWER C</p> <p>Grinding wheat</p>
<p>GEO THERMAL D</p> <p>Hawaii and California</p>	<p>HYDROPOWER D</p> <p>Water spins the blades of this device to power a generator</p>
<p>GEO THERMAL E</p> <p>About 50°F year-round</p>	<p>HYDROPOWER E</p> <p>Five to ten percent of total production</p>
<p>GEO THERMAL F</p> <p>Devices that use the Earth's constant temperature to heat and cool buildings</p>	<p>HYDROPOWER F</p> <p>Washington</p>

Double Jeopardy Answers

<p>SOLAR A</p> <p>The sun's energy is produced in this process</p>	<p>WIND A</p> <p>Grind wheat and pump water</p>
<p>SOLAR B</p> <p>Radiant energy</p>	<p>WIND B</p> <p>One to two acres</p>
<p>SOLAR C</p> <p>Eight minutes</p>	<p>WIND C</p> <p>Wind farm</p>
<p>SOLAR D</p> <p>Device that converts radiant energy into electricity</p>	<p>WIND D</p> <p>Three-fourths of the time</p>
<p>SOLAR E</p> <p>Device that converts radiant energy into heat</p>	<p>WIND E</p> <p>Texas</p>
<p>SOLAR F</p> <p>Tiny bundles of light</p>	<p>WIND F</p> <p>Uneven heating of the Earth's surface</p>

Final Jeopardy

FINAL JEOPARDY CATEGORIES ANSWERS AND QUESTIONS

A. Forms of Energy

What is kinetic energy?

B. Botany and Energy

What is photosynthesis?

C. Energy Measurement

What is a British Thermal Unit or Btu?

D. Energy and the Environment

What is Carbon Dioxide (CO₂)?

E. Energy History

What is Niagara Falls?

F. Geography

What is Australia?

<p>FINAL JEOPARDY A</p> <p>FORMS OF ENERGY</p> <p>A falling object changes all of its potential energy into this just before it hits the ground.</p>	<p>FINAL JEOPARDY D</p> <p>ENERGY AND THE ENVIRONMENT</p> <p>The major greenhouse gas produced by burning fossil fuels.</p>
<p>FINAL JEOPARDY B</p> <p>BOTANY AND ENERGY</p> <p>Sunlight, water, chlorophyll, and minerals combine to produce chemical energy in this process.</p>	<p>FINAL JEOPARDY E</p> <p>ENERGY HISTORY</p> <p>It started operation in New York in 1895 as the world's first hydropower plant.</p>
<p>FINAL JEOPARDY C</p> <p>ENERGY MEASUREMENT</p> <p>This amount of energy that can raise the temperature of one pound of water one degree Fahrenheit.</p>	<p>FINAL JEOPARDY F</p> <p>GEOGRAPHY</p> <p>Other than Antarctica, this continent uses the least amount of energy.</p>



Energy Jeopardy Evaluation Form

State: _____ Grade Level: _____ Number of Students: _____

- | | | |
|--|------------------------------|-----------------------------|
| 1. Did you conduct the entire activity? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Were the instructions clear and easy to follow? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Did the activity meet your academic objectives? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Was the activity age appropriate? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Were the allotted times sufficient to conduct the activity? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Was the activity easy to use? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 7. Was the preparation required acceptable for the activity? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8. Were the students interested and motivated? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 9. Was the energy knowledge content age appropriate? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 10. Would you teach this activity again? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Please explain any 'no' statement below.

How would you rate the activity overall? ☐ excellent ☐ good ☐ fair ☐ poor

How would your students rate the activity overall? ☐ excellent ☐ good ☐ fair ☐ poor

What would make the activity more useful to you?

Other Comments:

Please fax or mail to: **The NEED Project**

P.O. Box 10101
Manassas, VA 20108
FAX: 1-800-847-1820

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