

GET A CLUE!

Time Frame:	Standards:
<p>45 Minutes</p> <p>5th Grade</p>	<p>5.S.5.1.1 Identify issues for environmental studies</p> <p>5.S.5.3.1 Identify the differences between renewable and nonrenewable</p>
Objectives:	
<p>The students will identify and use vocabulary words related to the topic of energy sources in a game situation.</p>	
Background Information:	
<p>Energy is essential in our daily lives. It takes energy to breathe, grow, and think. We are even using energy at night while sleeping. We depend on energy for our heat, air conditioning, lights, clothing, food, transportation, and communication.</p> <p>Where does this seemingly endless supply of energy come from?</p> <p>There are many sources from which we get our energy. Some are “endless” or renewable, such as such as energy we get from the sun, wind, and water. Other sources are limited or nonrenewable such as fossils fuels – coal, oil, and natural gas. Some sources are only available in certain areas such as geothermal features or uranium. Some sources are readily available, but difficult to harness, such as ocean tides; others are expensive to extract or might present environmental concerns.</p> <p>Scientists are constantly searching for sources of energy and more efficient ways to use them. Many sources of energy have been used for hundreds, even thousands of years. Sources such as oil and coal can be burned to produce energy. Wins can be harnessed as well as the sun’s power (solar energy). In the late – 1800’s it was discovered that these sources could be used to generate electricity and distribute it as needed. In the mid – 1900s fuel cells and photovoltaic cells were discovered. These are just a few of the sources and their uses we take advantage of each day.</p>	
Materials:	
<ul style="list-style-type: none"> • Index cards for password clues • Markers 	

Procedure:

1. The success of this activity depends upon adequate student preparation. Class time should be spent learning to spell and define the following energy source words:

Geothermal	Coal	Nuclear Energy
Oil	Fission	Crude Oil
Fossil Fuels	Solar	Wind
Oil Shale	Gasoline	Battery
Stream	Methane	Ocean Waves
Ocean Tides	Hydroelectric	Uranium
Water	Waste	Petroleum
Biomass	Fusion	Garbage
Natural Gas	Plants	Wood

2. Divide the class into two groups of approximately equal ability. Choose one student from each team to give clues and have them sit at the front of the room. This game is played like the TV game of “Password” except that each clue giver will be giving clues to his/her team rather than to one partner.
3. You may want to use the list of suggested words included or add your own choices.
4. How the game is played:
 - a. Each of the clue giver is given a clue
 - b. The clue givers then give clues alternately to their teams as to the identity of the password. Some teachers allow only one-word clues to be given, or you may prefer to allow more clues within a certain time period, such as 15 seconds. (Have one student be the timekeeper)
 - c. After giving a clue, the clue giver chooses someone on his/her team to guess what the password is. If that team member guesses the correct word, his/her team scores, and a new round begins using a new password. Alternately, team members guess the word by order of seating rather than being chosen by the clue giver to guess the word.
 - d. If the team member guesses incorrectly, the turn goes to the other clue giver who gives a new clue to a member from his/her team.

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- e. After the word has been guessed correctly by one team or the other, the new word goes first to the clue giver who did not start the previous round.
- f. Scoring is as follows:
 - i. 10 pts. For the team guessing the word correctly on the first clue.
 - ii. 9 pts. If the correct word is guessed on the second clue.
 - iii. 8 pts. If the team guesses the password after hearing the third clue, etc.
- G. New clue givers should be chosen from each team after every three or four rounds have been played.

Extra:

Write the energy source cards on index cards. (Duplicate the cards, if necessary, to have one for each student.) Tape one card on the back of each student; they should not know what their own card says. Allow students to ask each other “yes” or “no” questions to try to identify their energy source. Once they have identified their own energy source, they still continue answering the other’s questions. As students identify their energy sources, they may remove the card from their back and place it on their chest.

Assessment:

Have students categorize the energy source words as either renewable or nonrenewable.

Use the words and definitions learned to create an energy crossword puzzle.

Additional Content:

N/A

References:

National Energy Foundation-Resources for Educators
Energy Fun-Integrated Learning Activities-Primary
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