What is Energy and Where Does It Come From?

All of our energy comes from the sun, which is our nearest star. The sun sends out huge amounts of energy through its rays every day. We call this energy solar energy or radiant energy. Without the sun, life on earth would not exist, since our planet would be totally frozen.

We use this solar energy in many different ways. The sunlight lets us see and warms us.

Plants use the light from the sun to grow. They store it as chemical energy. This process is called photosynthesis. The energy is stored in their roots, fruits, and leaves. This energy feeds every living thing on the earth. When humans and animals eat plants, and the food made from plants, we store the energy in our bodies, in our muscles and in our brain cells.

We use this energy for everything we do. We use energy when we sing a song, think a thought, tell a joke, climb a ladder, make a pizza, or run a race. Everything needs energy!

Just as humans store energy in their bodies, the earth stores the sun's energy too.

The sun's energy is stored in coal, natural gas, water and wind. Coal, oil, and natural gas are known as fossil fuels.

Fossil fuels were formed over millions of years ago when the remains and fossils of prehistoric plants and animals sank to the bottom of swamps and oceans. These animal and plant remains were slowly covered and crushed by layers of rock, mud, sand, and water. The pressure of all those layers caused the plants and animals to break down and change into coal, oil and natural gas.

We use the energy in these fossil fuels to make electricity. We use electricity in many different ways. We light and heat our homes, schools and businesses using electricity, and to run computers, refrigerators, washing machines, and air conditioners. Our cars and planes run on gasoline, which comes from oil. As of the year 2013, most of the energy we use comes from fossil fuels.

However, fossil fuels are known as non-renewable sources of energy. They cannot be used over and over again. This means that one day they will run out!

Luckily, there are some renewable energy sources we can use, that we can keep using. Unlike non-renewable fossil fuels, they will not run out. Three forms of renewable fuels are; solar (coming from the sun) energy, water energy and wind energy. Solar energy can be caught through solar cells and solar panels. People put solar panels on the top of houses to help capture the sun's energy and transform it into heat and electricity. Water is also used to produce electricity. Dams capture the energy of falling water and turn it into electricity. Wind is a third form of renewable energy. Wind turbines can capture the energy of the moving air and turn it into electricity. All these renewable energy sources are essential for us because they will not run out, so we need to get better and better at using them.

Name: _____ Date: _____

1. Where does all of our energy come from?

A renewable sources
B fossil fuels
C the moon
D the sun

2. How does the author describe renewable energy sources?

A energy sources that will not run out
B energy sources that are too expensive to become popular
C energy sources that are boring and not scientifically interesting
D energy sources that can only be found in limited amounts

3. Most of the energy we use comes from fossil fuels. However, fossil fuels are known as non-renewable sources of energy, so one day they will run out.

Based on this information, which types of energy sources should humans rely on in the future?

A non-renewable energy sources
B fossil fuels
C renewable energy sources
D chemical energy sources

4. Based on the evidence in the passage, how can the sun best be described?

A crucial for life on earth
B an important mythological object
C a developing black hole
D the biggest star in the universe

5. What is this passage mostly about?

A how long it takes for light from the sun to reach the earth
B the importance of energy for human life and where energy comes from
C different types of non-renewable sources of energy
D how fossil fuels were formed

6. Read the following sentence: "However, fossil fuels are known as **non-renewable** sources of energy. They cannot be used over and over again. This means that one day they will run out."

As used in the passage, what does the word "**non-renewable**" mean?

A coming from water
B wasteful
C going to run out
D easily generated

7. Non-renewable energy sources will eventually run out. _____, renewable energy sources will not run out and we can keep using them.

Choose the answer that best completes the sentence below.

A For example
B Because
C On the other hand
D Therefore

8. Describe how fossil fuels were formed.

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9. What are the three forms of renewable fuels?

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10. Which type of energy should humans be using in the future? Use information from the passage to support your answer.

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Teacher Guide & Answers

Passage Reading Level: Lexile 900

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8. Describe how fossil fuels were formed.

Suggested answer: Fossil fuels were formed when the remains and fossils of prehistoric plants and animals sank to the bottom of swamps and oceans. These animal and plant remains were slowly covered and crushed by layers of rock, mud, sand, and water. The pressure of all those layers caused the plants and animals to break down and change into coal, oil, and natural gas.

9. What are the three forms of renewable fuels?

Suggested answer: Solar energy, water energy, and wind energy are the three forms of renewable fuels.

10. Which type of energy should humans be using in the future? Use information from the passage to support your answer.

Suggested answer: Answers may vary and should be supported by the passage. Generally students should indicate that humans should be using renewable energy sources because unlike non-renewable energy sources, they will not run out.