Name _____ Date _____

Renewable and Nonrenewable Energy: Wind Turbines and a Coal Train

Directions: Read about Maya's car trip. Then answer each question.

Two Ways to Make Electricity

On a car trip, Maya passed wind turbines spinning on a hill. Later, she saw a train full of coal. Both wind and coal can be used to make electricity. But only one of them can run out.

Wind is a **renewable** resource. Nature keeps making more of it, so using it does not use it up. Sunlight and moving river water are renewable too. Sunlight keeps reaching Earth, and rain keeps refilling rivers. Coal, natural gas, and oil are **nonrenewable**. They formed long ago from the remains of plants and tiny sea life. That is why they are called **fossil fuels**. Once we burn them, they are gone. Making new ones takes nature millions of years.

Burning fossil fuels puts gases such as carbon dioxide into the air and can cause smoke. Using any energy resource can change the environment. A dam that uses moving river water can flood land where deer and birds lived.

1. Why is coal called nonrenewable?

A. It cannot be burned.
B. It makes no smoke when it burns.
C. It is too heavy to move by train.
D. Once it is burned, making new coal would take nature millions of years.

2. The wind turbines that Maya saw are turned by the wind. Why don't they use up the wind?

A. Wind is stored in big tanks under the turbines.
B. Nature keeps making more wind, so using it does not use it up.
C. The turbines put the wind back after they use it.
D. The turbines really run on coal, not on wind.

3. Use the word bank to finish the sentences about two other ways to make electricity.

Word bank
oil • coal • sunlight • water

Solar panels on a roof make electricity from _____. At a dam, moving _____ from a river spins turbines, too.

4. Why are coal, natural gas, and oil called fossil fuels?

A. They formed last year from fallen leaves.

B. They turn into fossils when they are burned.

C. They came from the remains of plants and tiny sea life from long ago.

D. They are made only from dinosaur bones.

5. What does the passage say happens to the air when coal is burned?

A. Burning coal does not change the air at all.

B. Burning coal cleans smoke out of the air.

C. Burning coal makes new coal grow in the ground.

D. Gases such as carbon dioxide go into the air, and there can be smoke.

6. Maya says, "Renewable energy never changes the environment." Which detail from the passage shows that she is wrong?

A. Maya saw a train full of coal.

B. Sunlight keeps reaching Earth.

C. Coal, natural gas, and oil are nonrenewable.

D. A dam that uses moving river water can flood land where deer and birds lived.

7. Maya's neighbor puts solar panels on her roof. Why is sunlight called renewable?

A. It keeps reaching Earth, so using it does not use it up.

B. The panels make their own sunlight.

C. Sunlight formed millions of years ago, like coal.

D. Sunlight comes from burning fossil fuels.

8. What would happen if the wind stopped blowing for a few days near the turbines Maya saw?

A. The turbines would make little or no electricity until the wind came back.

B. The wind would be used up forever.

C. The turbines would start burning coal instead.

D. The turbines would spin faster than before.