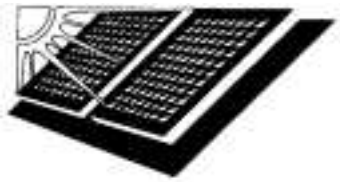
Renewable and Nonrenewable Energy

By Sharon Fabian



[1] Do you like to fly kites. If you do, you're in luck, because kites are powered by **renewable energy**. You can take your kite out and fly it all day on a windy day, and then do it again any time the wind blows. That is because a kite is powered by wind energy, and wind energy doesn't get used up. It's there every time the wind blows.

[2] Surfers get to take advantage of renewable energy, too. All you need to ride the surf is a surfboard, and maybe some sunscreen. The power is provided by nature. The waves that give you the ride on your surfboard are another natural force that doesn't get used up. The earth has tides that come and go to provide a constant supply of energy.

[3] There is another renewable energy source called geothermal energy. You can tell what geothermal means by looking at each part of the word. Geo- is a prefix that means "earth." Thermal means "heat." So you can reason that geothermal energy is heat energy from inside the earth. You know that it is a powerful energy source when you remember that spectacular volcanic eruptions are provided by geothermal forces.

[4] Solar power is another renewable power source. In fact, the sun is the force behind all of the other energy sources on earth. The sun is the ultimate source of all our power. Without the sun we wouldn't have any energy; without the sun we wouldn't even be here.

[5] There are other forms of energy on earth called **nonrenewable energy**. Nonrenewable sources are the ones that do get used up. Oil, coal, and wood are considered nonrenewable energy sources. Even though new coal and oil are being formed within the earth, it takes millions of years for that to happen. And we can plant new trees, but they don't grow nearly as fast as we can burn the wood. Right now, nonrenewable sources are still being used to power most of the power plants that provide our power for everyday uses, such as heat and light.

[6] Why are we still using so much nonrenewable energy? If there is an endless supply of wind, and tides, and sun -- what is the problem? Why don't we just use the renewable energy instead?

[7] So far, we have had a hard time getting these sources of renewable energy under control. Solar power is great when the sun is shining brightly. Wind power is great when the wind is blowing. Tides are only available if you are by the ocean. People have tried various ways to capture, store, and transport power from these sources, but so far they have been expensive and not too efficient. Solar panels, which collect solar energy, are one good example of a way that people have tried to put renewable energy to everyday use. You can probably think of some other examples, too.

[8] It's a problem that we still have to keep thinking about, and it's not an easy problem. After all, energy itself is always moving. You can't store sunshine or wind, the way you can store oil or wood. Luckily, we have good scientists working on the problem, and lots more young scientists who are learning about renewable energy now, and will be a part of the solution in the future.

Name _____ Science Pd _____

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1. Energy that is never used up is called _____.

   A. Nonrenewable energy
   B. Solar power
   C. Electricity
   D. Renewable energy

2. Energy that does become used up is called _____.

   A. Electricity
   B. Renewable energy
   C. Nonrenewable energy
   D. Solar power

3. All of our energy comes from the _____.

   A. Sun
   B. Earth
   C. Power plant
   D. Moon

4. Solar panels collect energy from _____.

   A. Nuclear power plants
   B. The sun
   C. Inside the earth
   D. Coal burning power plants

5. Tidal power can only be used _____.

   A. Near a nuclear power plant
   B. In the desert
   C. By the ocean
   D. On a mountain

6. _____ is easier to store.

   A. Geothermal power
   B. Nonrenewable energy
   C. Electricity
   D. Renewable energy

7. People hope that _____ will be the long-term solution to our energy problems.

   A. Electricity
   B. Renewable energy
   C. Geothermal power
   D. Nonrenewable energy