



# Directed Reading for Content Mastery

## Section 3 ■ Renewable Energy Sources

Directions: Complete the following sentences using the terms listed below.

batteries

geothermal

windmill

solar energy

tidal energy

radiant

hydroelectric

renewable resource

solar cell

pollution

hydrogen gas

potential energy

1. A Renewable is replaced nearly as quickly as it is used.
2. A photovoltaic cell converts Solar Energy into electricity.
3. A photovoltaic cell is also called a Solar Cell.
4. Electricity generated by solar cells must be stored in Batteries for use when the Sun is not shining.
5. If water is retained by a high dam, its gravitational Potential Energy is increased.
6. Dams built to generate energy from water are called hydroelectric dams.
7. Only a few places on Earth have large enough tidal differences for Tidal Energy to be useful.
8. A Windmill generates electricity when wind spins its propeller, which is connected to an electric generator.
9. At a Geothermal power plant, water pumped into a well in the ground makes contact with hot rock, and rises as steam and is used to rotate turbines that spin electric generators.
10. An alternative fuel that produces only water vapor when it burns and creates no pollution is Hydrogen GAS.
11. The Radiant energy from the Sun can be used to heat homes and provide hot water.
12. Hydroelectric power plants are an efficient way to produce electricity with almost no Pollution.



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## Key Terms

### Energy Sources

**Directions:** Match the term in Column I with the definition in Column II by writing the correct letter in the space provided.

#### Column I

- J 1. fossil fuels
- D 2. petroleum
- H 3. nonrenewable resource
- A 4. nuclear reactor
- E 5. nuclear waste
- B 6. renewable resource
- I 7. photovoltaic cell
- F 8. hydroelectricity
- C 9. geothermal energy
- G 10. biomass
- L 11. radiant energy
- K 12. solar cell

#### Column II

- a. uses energy from controlled nuclear reactions to generate electricity
- b. resources that are replaced nearly as quickly as they are used
- c. thermal energy that is contained in hot magma
- d. thick, greenish-brown, highly flammable liquid that contains hydrocarbons
- e. any radioactive by-product that results when radioactive materials are used
- f. electricity produced from the energy of moving water
- g. renewable organic matter that can be used to generate thermal energy
- h. resources that cannot be replaced by natural processes as quickly as they are used
- i. device that is used to convert solar energy into electricity
- j. formed from the decaying remains of ancient plants and animals
- k. another name for a photovoltaic cell
- l. energy from the Sun that can be used to heat homes and provide hot water