

Energy Resources ▪ Guided Reading and Study**Renewable Sources of Energy**

This section describes several renewable sources of energy and explains the advantages and disadvantages of each energy source.

Use Target Reading Skills

Before you read, preview Figure 7. Then write two questions that you have about the diagram in the graphic organizer below. As you read, answer your questions.

Q. How does the house capture solar energy?
A.
Q.
A.

Harnessing the Sun's Energy

1. What is solar energy? _____
2. Circle the letter of each sentence that is true about solar energy.
 - a. It is the source of most other renewable energy resources.
 - b. It causes pollution.
 - c. It will not run out for billions of years.
 - d. It is available only when the sun is shining.
3. How do some solar plants capture energy and use it to generate electricity?

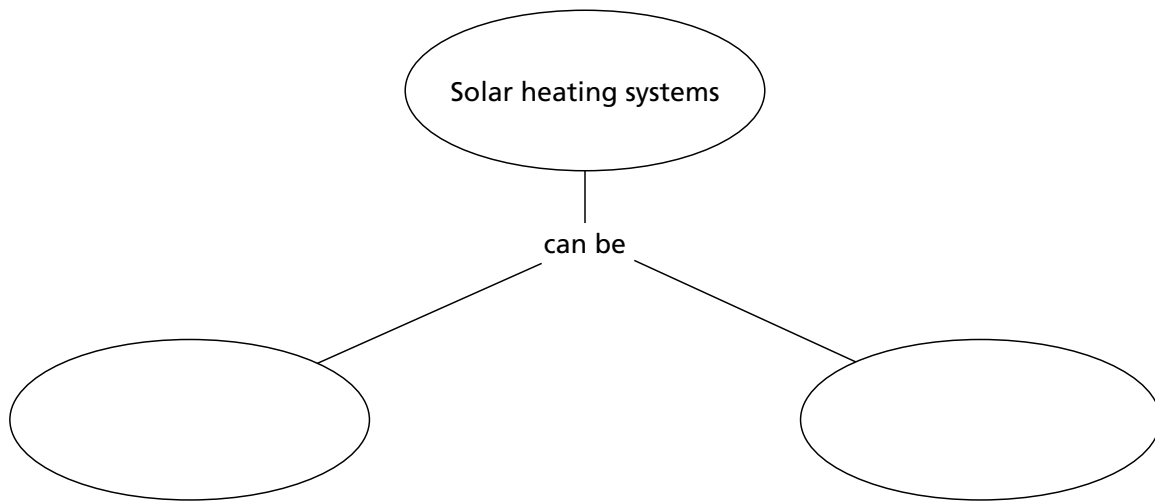
4. Is the following sentence true or false? Solar energy can be converted directly into electricity in a solar cell. _____
5. What are solar cells used to power?

6. Is the following sentence true or false? Solar heating systems convert sunlight into mechanical energy. _____

Energy Resources ▪ *Guided Reading and Study*

Renewable Sources of Energy *(continued)*

7. Complete the concept map.



8. How do active solar heating systems differ from passive solar heating systems?

Hydroelectric Power

9. List other renewable sources of energy besides the sun.

- a. _____ b. _____
c. _____ d. _____
e. _____

10. Electricity produced by flowing water is called _____.

Energy Resources ▪ Guided Reading and Study

11. Is the following sentence true or false? Hydroelectric power is the least widely used source of renewable energy in the world today.

12. What are two limitations on hydroelectric power in the United States?

Capturing the Wind

13. Circle the letter of each sentence that is true about wind energy.

- a. It provides 10 percent of the world's electricity.
- b. It is the fastest-growing energy source.
- c. It causes pollution.
- d. In some places it is the major source of power.

14. Is the following sentence true or false? Most places have winds that blow steadily enough to be a worthwhile energy source.

Biomass Fuels

15. Fuels made from living things are called _____.

16. Circle the letter of each sentence that is true about biomass fuels.

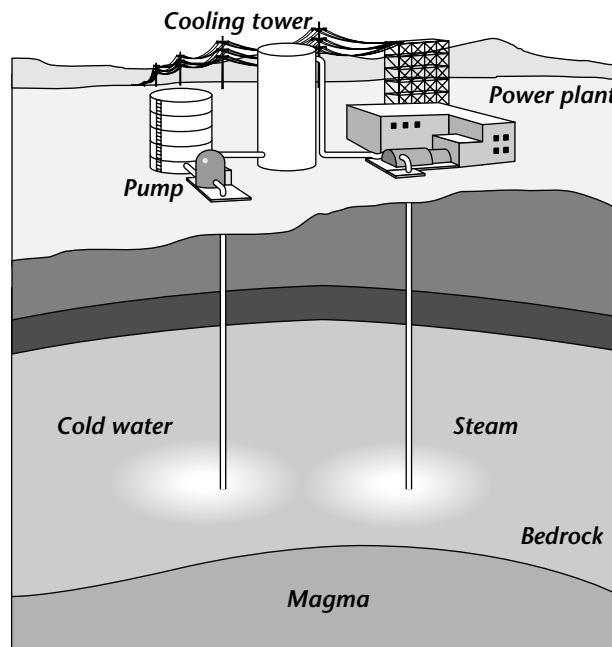
- a. They include leaves, food wastes, and manure.
- b. They can be converted to other fuels.
- c. They are widely used today in the United States.
- d. They are renewable resources.

Energy Resources ▪ *Guided Reading and Study*

Renewable Sources of Energy *(continued)*

Tapping Earth's Energy

17. Intense heat from Earth's interior is called _____.
18. Is the following sentence true or false? Geothermal energy is an unlimited source of cheap energy. _____
19. Add arrows to the drawing to show how water flows through a geothermal power plant.



The Promise of Hydrogen Power

20. What is the obstacle to using hydrogen as a fuel?
