

Directed Reading A

Section: Alternative Resources

1. What are two main problems with fossil fuels?

SPLITTING THE ATOM: FISSION

- _____ 2. The energy released by a fission or fusion reaction is
- | | |
|---------------------|----------------------------|
| a. megawatt energy. | c. British Thermal Energy. |
| b. chemical energy. | d. nuclear energy. |

- _____ 3. What is the SI unit of measurement for all forms of energy?
- | | |
|-------------|-------------------------|
| a. megawatt | c. British Thermal Unit |
| b. joule | d. barium-142 |

4. The process by which the nuclei of radioactive atoms are split into two or more smaller nuclei is called _____.

5. What are two reasons people do not use nuclear energy instead of using fossil fuels?

COMBINING ATOMS: FUSION

6. The joining of two or more nuclei to form a larger nucleus is _____.

7. Name one place where fusion happens naturally.

8. What is the main advantage of fusion?

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9. What is the main disadvantage of fusion?

CHEMICAL ENERGY

- _____ 10. Fuel cells produce chemical energy by combining
- a. carbon and oxygen.
 - b. hydrogen and oxygen.
 - c. carbon and hydrogen.
 - d. carbon, hydrogen, and oxygen.

- _____ 11. What is the only byproduct of fuel cells?
- a. smog
 - b. methane
 - c. radioactive waste
 - d. water

- _____ 12. The energy released when a chemical compound reacts to produce new compounds is called
- a. nuclear energy.
 - b. chemical energy.
 - c. solar energy.
 - d. wind power.

SOLAR ENERGY

- _____ 13. The energy received by Earth from the sun in the form of radiation is
- a. nuclear energy.
 - b. chemical energy.
 - c. solar energy.
 - d. wind power.

14. Is solar energy a renewable or nonrenewable resource?

15. What are solar cells or solar voltaic cells used for?

16. What are solar panels, and what are they used for?

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17. What are solar collectors, and what are they used for?

18. What is one disadvantage of solar energy?

WIND POWER

_____ 19. The use of a windmill to drive an electric generator is
a. nuclear energy. c. solar energy.
b. chemical energy. d. wind power.

_____ 20. Which of the following is true about wind power?
a. Wind power is renewable.
b. Wind power is created by fission.
c. Wind power causes a lot of pollution.
d. Wind power is created by fusion.

HYDROELECTRIC ENERGY

_____ 21. Electrical energy produced by falling water is called
a. wind power. c. hydrogen energy.
b. hydraulic power. d. hydroelectric energy.

22. What is one advantage of using hydroelectric energy?

23. What is one disadvantage of using hydroelectric energy?

24. What are three problems that could be caused by building hydroelectric dams?
