

Directed Reading

Section: Resources and Conservation

- _____ 1. According to predictions, worldwide coal reserves will last
- a. about 20 years.
 - b. about 100 years.
 - c. about 200 years.
 - d. indefinitely.
- _____ 2. Many scientists think that humans have already used how much of Earth's oil supply?
- a. less than 10%
 - b. about 25%
 - c. more than 50%
 - d. almost 90%
- _____ 3. What are people doing about the limited supply of traditional energy resources?
- a. stopping the use of fossil fuels
 - b. researching new energy sources
 - c. giving up coal mining
 - d. using only renewable resources
4. In general, how can mining damage the environment?

5. How can fossil fuels and nuclear power generation damage the environment?

6. How have governments helped reduce the impact of energy use on the environment?

ENVIRONMENTAL IMPACTS OF MINING

7. What are two kinds of pollution caused by mining?

Directed Reading *continued*

8. How does mining affect water resources?

9. Describe a mining practice that harms wildlife habitats.

10. What may happen to land above a mine as a result of removing materials below the surface?

11. Why are fires in coal mines a problem?

12. What is the purpose of U.S. laws that regulate mines?

13. List three laws that regulate mining operations.

14. What law protects threatened or endangered species from mining?

15. What is reclamation?

16. What is the effect of reclamation?

17. How do some mining operations work to reduce environmental damage?

Directed Reading *continued***FOSSIL FUELS AND THE ENVIRONMENT**

- _____ 18. What is a likely feature of land where strip mining has been performed?
- a. green forests
 - b. deep holes
 - c. rolling hills
 - d. clear water
- _____ 19. What often happens to land whose plants and topsoil are removed by strip mining?
- a. The land provides new habitats for wildlife.
 - b. The land becomes fertile farm land.
 - c. The land erodes quickly.
 - d. Nothing happens to the land.
- _____ 20. When rocks weather to form acids after being exposed by mining, what may be a harmful effect?
- a. Runoff can carry the acids into rivers and harm aquatic life.
 - b. The rocks can wear away and form poisoned soil.
 - c. Acid runoff can form gullies and ravines.
 - d. The mines can no longer produce high-quality coal.
- _____ 21. When coal with a high sulfur content is burned, what is released into the atmosphere in large amounts?
- a. carbon dioxide
 - b. carbon monoxide
 - c. hydrogen
 - d. sulfur dioxide
- _____ 22. Under what conditions does acid precipitation form?
- a. when SO_2 combines with water in the air
 - b. when natural gas combines with water in the air
 - c. when water breaks up into hydrogen and oxygen
 - d. when hydrogen combines with carbon monoxide
- _____ 23. A major cause of air pollution is
- a. burning coal.
 - b. burning gasoline.
 - c. catalytic converters.
 - d. combining petroleum and natural gas.
- _____ 24. Which is NOT an effective way to reduce pollutants emitted by cars?
- a. careful maintenance
 - b. using catalytic converters
 - c. burning more gasoline
 - d. emissions testing

Directed Reading *continued*

CONSERVATION

- _____ 25. The preservation and wise use of natural resources is called
- a. environmental science.
 - b. recycling.
 - c. conservation.
 - d. reclamation.

26. List two ways conservation can help the environment.

27. Why are people in developing countries using more mineral resources?

28. List two ways minerals can be conserved.

29. Define *recycling*.

30. List three metals that are often recycled.

31. Compared with the energy used by mining and manufacturing, how much energy does recycling require?

32. How does insulation in a home help conserve energy?

Directed Reading *continued*

33. How do energy-efficient appliances help conserve energy?

34. Describe two additional ways to conserve energy in your home.

35. How much carbon dioxide does an average car produce for each 3.8 L of gasoline burned?

36. Describe three ways to conserve gasoline.

37. What do scientists predict about freshwater resources in the not-too-distant future?

38. Describe four ways to help conserve water.
