Unit 3 Section 4
Study Guide

Directions: Answer the following questions.

Reviewing Objectives Part 1:

1. Identify differences in the origin and use of renewable (e.g., solar, wind, water, biomass) and nonrenewable(e.g., fossil fuels, nuclear [U-235]) sources of energy. Pages: 159-164, 165-168, 169-172, 178-179

2. Describe renewable and nonrenewable sources of energy for human consumption (electricity, fuels), compare their effects on the environment, and include overall costs and benefits. Pages: 159-164, 165-168, 169-172, 178-179

Reviewing Major Concepts Part 2: ***Chapter 7 section 2, section 4***

1. Explain why coal, petroleum, and natural gas are called fossil fuels.

2. Compare how coal, petroleum, and natural gas form.

3. Describe the kind of rock structures in which petroleum reservoirs form.

4. Identify the naturally occurring element that is used for nuclear fission.

5. Explain how nuclear fission generates electricity.

6. Summarize the process of nuclear fusion.

CRITICAL THINKING

7. Analyzing Relationships Why have we been able to build nuclear power plants for only the last 50 years?

8. Recognizing Relationships Can the waste products of nuclear fission be safely disposed of in rivers or lakes? Explain your answer.

9. Making Comparisons How do the processes of nuclear fusion and nuclear fission differ?

10. Name two environmental problems associated with the mining and use of coal.

11. Explain two ways the environmental impacts of mining can be reduced.

12. Describe two reasons why scientists are looking for alternatives to fossil fuels.