

Energy ▪ *Guided Reading and Study*

Energy and Fossil Fuels

This section explains the source of the energy stored in fossil fuels and describes how energy is converted when fossil fuels are used.

Use Target Reading Skills

Previewing the figures in a section can help you understand what you read. Before you read the section, preview Figure 18. Write two questions you have about the diagram in the graphic organizer. As you read the section, look for the answers to your questions and write them in the graphic organizer.

Using Fossil Fuel Energy

Q.
A.
Q.
A.

Formation of Fossil Fuels

1. Is the following sentence true or false? A fuel is a material that stores chemical potential energy. _____
2. Circle the letters of the following that are fossil fuels.
 - a. coal
 - b. sunlight
 - c. petroleum
 - d. natural gas

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Energy and Fossil Fuels *(continued)*

3. Where did the energy in fossil fuels originally come from?

4. What energy conversion takes place in the sun?

5. What energy conversion takes place during photosynthesis?

Use of Fossil Fuels

6. How is the potential chemical energy of fossil fuels released?

7. The process of burning fossil fuels is known as _____.

8. What energy conversion occurs during combustion?

9. In a modern coal-fired power plant, the mechanical energy of turbines is converted into electrical energy by _____.