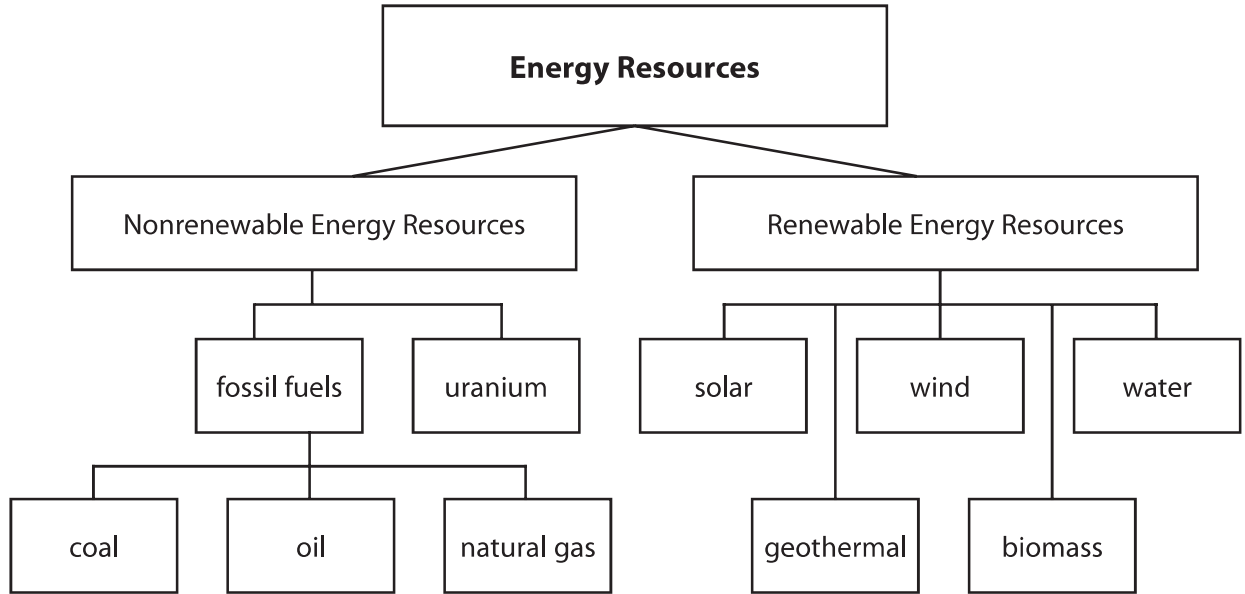


**Content Practice A**

**LESSON 1**

**Energy Resources**

**Directions:** On each line, write the term from the diagram that describes each statement. Not all terms are used.



1. These resources are used faster than they can be replaced by natural processes. \_\_\_\_\_
2. This renewable energy source comes from Earth's interior. \_\_\_\_\_
3. This energy source comes from plants that died millions of years ago. \_\_\_\_\_
4. This energy source comes from the Sun. \_\_\_\_\_
5. These are resources that can be replaced by natural processes in a relatively short amount of time. \_\_\_\_\_
6. This nonrenewable energy resource comes from plankton that died millions of years ago and is found layered over oil. \_\_\_\_\_
7. Energy gained from this renewable energy resource comes from burning food scraps, wood, and other organic material. \_\_\_\_\_
8. This material is used in nuclear power plants to create nuclear energy. \_\_\_\_\_

**School to Home**

**LESSON 1**

***Energy Resources***

**Directions:** Use your textbook to complete the table. After you have finished the table, discuss with your family ways to manage your use of nonrenewable resources.

<b>Advantages and Disadvantages of Using Nonrenewable Resources</b>			
<b>Resource</b>	<b>How It Forms or What It Is</b>	<b>Advantages of Using the Resource</b>	<b>Disadvantages of Using the Resource</b>
Coal			
Oil			
Natural Gas			
Uranium			

**Key Concept Builder** **LESSON 1****Energy Resources****Key Concept** What are the main sources of nonrenewable energy?**Directions:** On each line, write the term from the word bank that correctly completes each sentence. Some terms may be used more than once or not at all.

<b>coal</b>	<b>energy resources</b>	<b>natural gas</b>	<b>nonrenewable</b>
<b>oil</b>	<b>petroleum</b>	<b>renewable</b>	<b>sediment</b>
<b>solar</b>	<b>uranium</b>		

- Coal, oil, and the Sun are \_\_\_\_\_.
- Energy resources that can be replaced by natural processes in a relatively short amount of time are called \_\_\_\_\_ resources.
- Energy resources that are used faster than they can be replaced by natural processes are called \_\_\_\_\_ resources.
- Nonrenewable resources include fossil fuels and \_\_\_\_\_.
- Fossil fuels include \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
- Most oil and \_\_\_\_\_ formed where forces within Earth folded and tilted thick rock layers.
- Oil and natural gas formed from the remains of plankton that were covered by layers of \_\_\_\_\_.
- Another name for oil is \_\_\_\_\_.
- \_\_\_\_\_ formed as a result of bacteria, extreme temperatures, and pressure acting on plants that died millions of years ago.
- As oil and natural gas formed under rocks, less-dense \_\_\_\_\_ settled over the denser oil.
- Peat can change into \_\_\_\_\_, a nonrenewable resource burned as fuel.
- One nonrenewable resource, \_\_\_\_\_, is used in nuclear reactions.

**Lesson Quiz B**

**LESSON 1**

**Energy Resources**

**Multiple Choice**

**Directions:** *On the line before each statement, write the letter of the correct answer.*

- \_\_\_\_\_ 1. \_\_\_\_\_ is a renewable energy resource.
  - A. Oil
  - B. Coal
  - C. Nuclear energy
  - D. Geothermal energy
  
- \_\_\_\_\_ 2. Reclamation is a process in which land is
  - A. mined to recover resources.
  - B. restored after it has been mined.
  - C. treated to destroy nuclear waste.
  - D. drilled to recover oil and natural gas.
  
- \_\_\_\_\_ 3. An advantage of fission is that it
  - A. is relatively cheap to use.
  - B. doesn't produce radioactive waste.
  - C. generates small amounts of energy.
  - D. generally does not pollute other resources.

**Short Answer**

**Directions:** *Respond to each statement on the lines provided.*

- 4. **State** the main difference between renewable and nonrenewable resources.

\_\_\_\_\_

\_\_\_\_\_

- 5. **Identify** one advantage and one disadvantage of using fossil fuels.

\_\_\_\_\_

\_\_\_\_\_

- 6. **Identify** one disadvantage of using nuclear energy.

\_\_\_\_\_

\_\_\_\_\_

- 7. **Describe** two ways in which you can personally manage nonrenewable resources wisely.

\_\_\_\_\_

\_\_\_\_\_

## Content Vocabulary

## LESSON 2

### Renewable Energy Resources

**Directions:** On each line, write the term from the word bank that correctly replaces the underlined words in each sentence. NOTE: You may need to change a term to its plural form.

biomass energy  
solar energy

geothermal energy  
wind farm

hydroelectric power

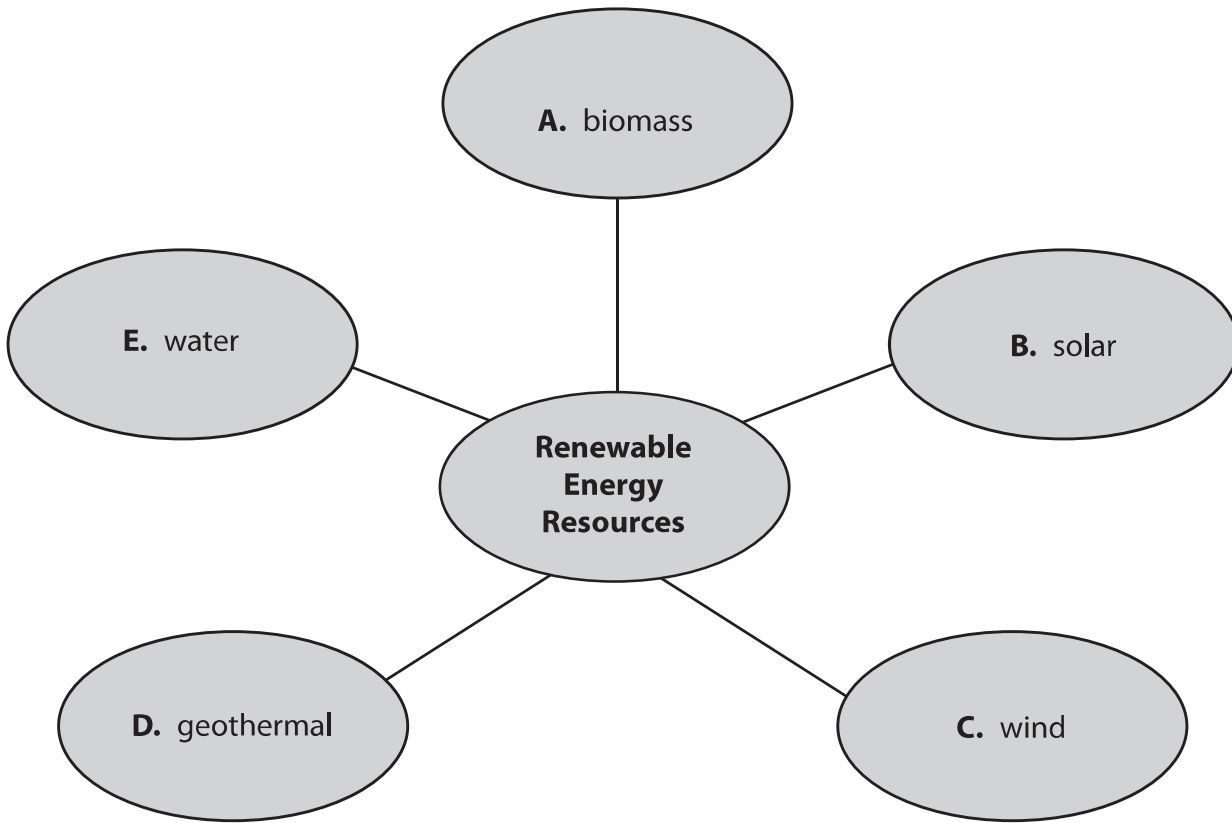
- \_\_\_\_\_ 1. Deep wells can be drilled to access thermal energy from Earth's interior, which can then be used to heat homes and generate electricity in power plants.
- \_\_\_\_\_ 2. The use of energy from the Sun can be passive or active.
- \_\_\_\_\_ 3. For a slightly higher rate, Teresa's power company offers customers the option of obtaining their energy from a group of wind turbines.
- \_\_\_\_\_ 4. Wood and biodiesel can be used to produce energy from burning organic matter.
- \_\_\_\_\_ 5. To produce electricity from flowing water, a dam must be built across a powerful river.

**Content Practice A**

**LESSON 2**

**Renewable Energy Resources**

**Directions:** On the line before each description, write the letter of the term that matches it correctly. Some terms may be used more than once.



- \_\_\_\_\_ 1. thermal energy from Earth's interior
- \_\_\_\_\_ 2. provides energy from burning wood scraps
- \_\_\_\_\_ 3. energy captured from the Sun
- \_\_\_\_\_ 4. low and high tides produce electricity
- \_\_\_\_\_ 5. needed for wind farms to generate electricity
- \_\_\_\_\_ 6. burning this type of energy resource causes pollution
- \_\_\_\_\_ 7. less of this type of energy is captured on cloudy days
- \_\_\_\_\_ 8. type of energy used to power some calculators and watches

**Content Practice B**

**LESSON 2**

**Renewable Energy Resources**

**Directions:** Answer each question or respond to each statement on the lines provided.

1. **Name** one advantage and one disadvantage of wind energy.

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2. What is the difference between active solar energy and passive solar energy?

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3. **Compare** and **contrast** hydroelectric power and tidal power.

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4. **Identify** one way biomass energy is used to power vehicles. Why do you think this use is important?

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5. Do you think the advantages of geothermal energy outweigh the disadvantages? Explain.

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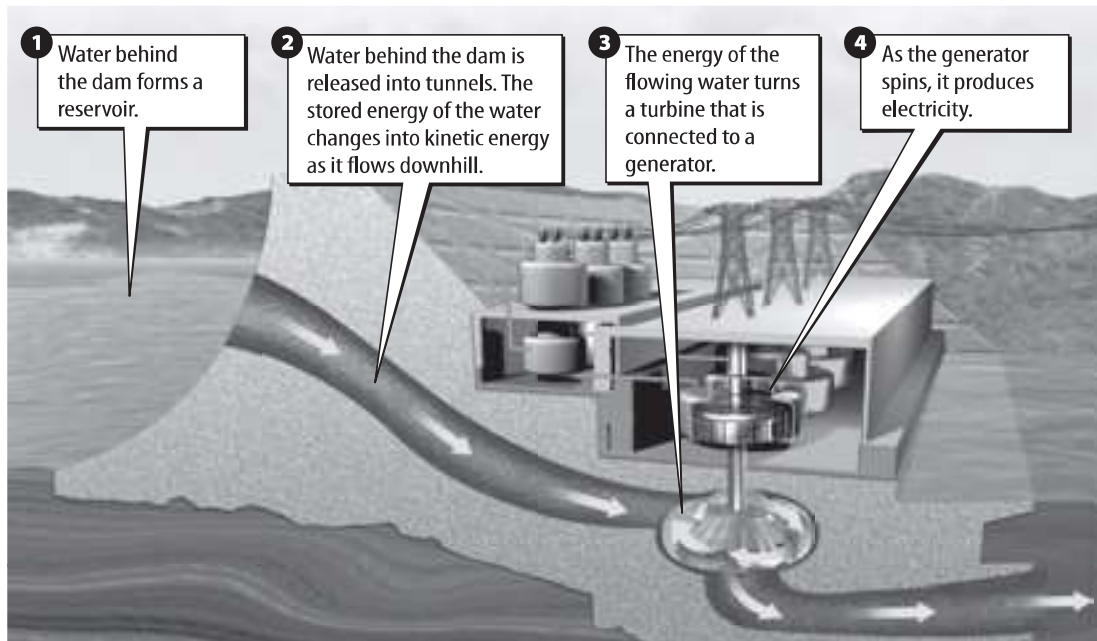
**Key Concept Builder** 

**LESSON 2**

**Renewable Energy Resources**

**Key Concept** What are the main sources of renewable energy?

**Directions:** Use the diagram to answer each question on the lines provided.



1. What is the energy source for electricity produced by hydroelectric power plants?

\_\_\_\_\_

2. How is electrical energy generated in a hydroelectric power plant?

\_\_\_\_\_

\_\_\_\_\_

**Directions:** Answer each question or respond to each statement on the lines provided.

3. Name another type of water power beside hydroelectric power.

\_\_\_\_\_

4. Beside water, what are four other sources of renewable energy?

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,

and \_\_\_\_\_

5. Why is water considered to be a renewable resource?

\_\_\_\_\_



**Key Concept Builder** 

**LESSON 2**

**Renewable Energy Resources**

**Key Concept** What are the main sources of renewable energy?

**Directions:** Answer the questions in the space provided.

Renewable Energy Resource	How is it captured?	Where is it found?
solar	1.	2.
wind	3.	4.
water	5.	6.
geothermal	7.	8.
biomass	9.	10.

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**Key Concept Builder** **LESSON 2**

## ***Renewable Energy Resources***

**Key Concept** What are the advantages and disadvantages of using renewable energy resources?

**Directions:** *On the line before each statement, write Yes if the statement describes an advantage of renewable resource use or No if the statement describes a disadvantage of renewable resource use.*

**It is an advantage that ....**

- \_\_\_\_\_ 1. some energy sources are renewable.
- \_\_\_\_\_ 2. renewable energy sources produce less pollution than fossil fuels.
- \_\_\_\_\_ 3. geothermal drilling disrupts habitats.
- \_\_\_\_\_ 4. drought can affect areas dependent on water energy.
- \_\_\_\_\_ 5. biomass energy reduces the amount of organic matter in landfills.
- \_\_\_\_\_ 6. large-scale geothermal plants are limited to areas with tectonic activity.
- \_\_\_\_\_ 7. wind energy is nonpolluting.
- \_\_\_\_\_ 8. wind turbines interfere with migrating birds.
- \_\_\_\_\_ 9. geothermal energy produces little pollution.
- \_\_\_\_\_ 10. wind energy is relatively inexpensive.
- \_\_\_\_\_ 11. wind farms are limited to large, windy areas.
- \_\_\_\_\_ 12. solar cells are expensive.
- \_\_\_\_\_ 13. hydroelectric plants can disrupt aquatic ecosystems.
- \_\_\_\_\_ 14. biomass is less energy efficient than fossil fuels.

**Lesson Quiz A****LESSON 2****Renewable Energy Resources****True or False**

**Directions:** On the line before each statement, write T if the statement is true or F if the statement is false. If the statement is false, change the underlined word(s) to make it true. Write your changes on the lines provided.

\_\_\_\_\_ 1. A disadvantage of solar energy is that it can be used only in tectonically active areas.

\_\_\_\_\_

\_\_\_\_\_ 2. An advantage of using biomass as an energy resource is that it reduces the amount of organic matter thrown into landfills.

\_\_\_\_\_

\_\_\_\_\_ 3. A disadvantage of solar energy is that it can harm birds.

\_\_\_\_\_

\_\_\_\_\_ 4. Water energy is essentially nonpolluting.

\_\_\_\_\_

\_\_\_\_\_ 5. A disadvantage of water energy is that cannot be used on cloudy days.

\_\_\_\_\_

**Multiple Choice**

**Directions:** On the line before each statement, write the letter of the correct answer.

\_\_\_\_\_ 6. \_\_\_\_\_ is **NOT** a renewable energy resource.

- A. The Sun
- B. Natural gas
- C. Moving water

\_\_\_\_\_ 7. A disadvantage of hydroelectric power is that it

- A. is nonpolluting.
- B. is relatively inexpensive.
- C. can harm fish and other organisms.

\_\_\_\_\_ 8. Renewable resources are **NOT** wisely managed when

- A. the government passes laws to encourage their use.
- B. people buy products that are made with these resources.
- C. people do not use them whenever it is possible to do so.