

**Freshwater Resources** ▪ *Guided Reading and Study*

## Water Power

*This section describes how water moving over a waterfall or dam can be used to generate electricity. The section also identifies some of the benefits and drawbacks of building dams.*

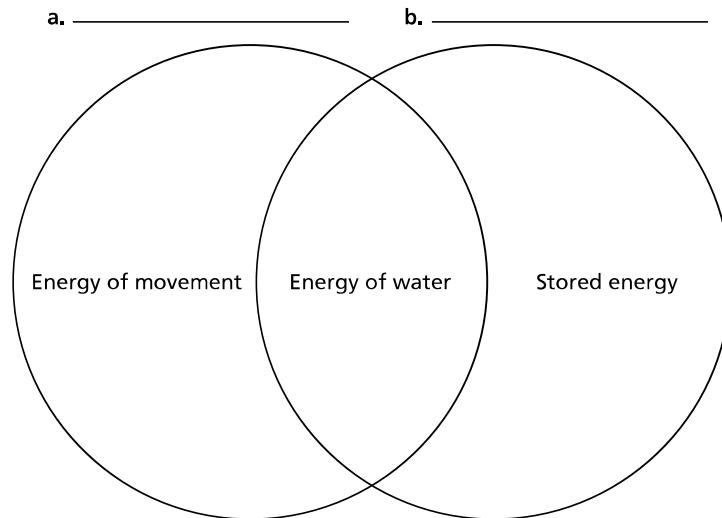
### Use Target Reading Skills

*Preview the red headings in your textbook. In the graphic organizer, ask a how or what question for each heading. As you read, answer your questions.*

Water Power	
Question	Answer
How are energy and moving water related?	Hydroelectric power . . .

### Energy and Moving Water

1. Electricity produced by water moving over a waterfall or dam is called \_\_\_\_\_.
2. Complete the Venn diagram by labeling each circle with the type of energy it represents.



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**Water Power** *(continued)*

**Hydroelectric Power Plants**

*Match the part of a hydroelectric power plant with the way it converts energy.*

<b>Part</b>	<b>How It Converts Energy</b>
___ 3. penstock	a. Converts mechanical energy to electrical energy
___ 4. turbine	b. Converts kinetic energy to mechanical energy
___ 5. generator	c. Converts potential energy to kinetic energy

6. Circle the letter of each sentence that is true about hydroelectric power.

- a. It is clean.
- b. It is efficient.
- c. It is safe.
- d. It causes air pollution.

7. Is the following sentence true or false? Hydroelectric power can be generated by any source of moving water. \_\_\_\_\_

8. Circle the letter of each sentence that describes how dams affect the environment.

- a. Dams destroy wildlife habitats.
- b. Dams prevent fish from swimming upstream.
- c. Dams increase fish populations.
- d. Dams enrich farmlands downstream.

9. Is the following sentence true or false? Dams increase the erosion caused by fast-moving rivers. \_\_\_\_\_

10. Is the following sentence true or false? Water power is the least expensive and least polluting large-scale energy source.

\_\_\_\_\_

11. Besides supplying energy to produce electricity, list two benefits of dams.

- a. \_\_\_\_\_
- b. \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

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12. What are the pros and cons of building small dams to supply power to local areas?

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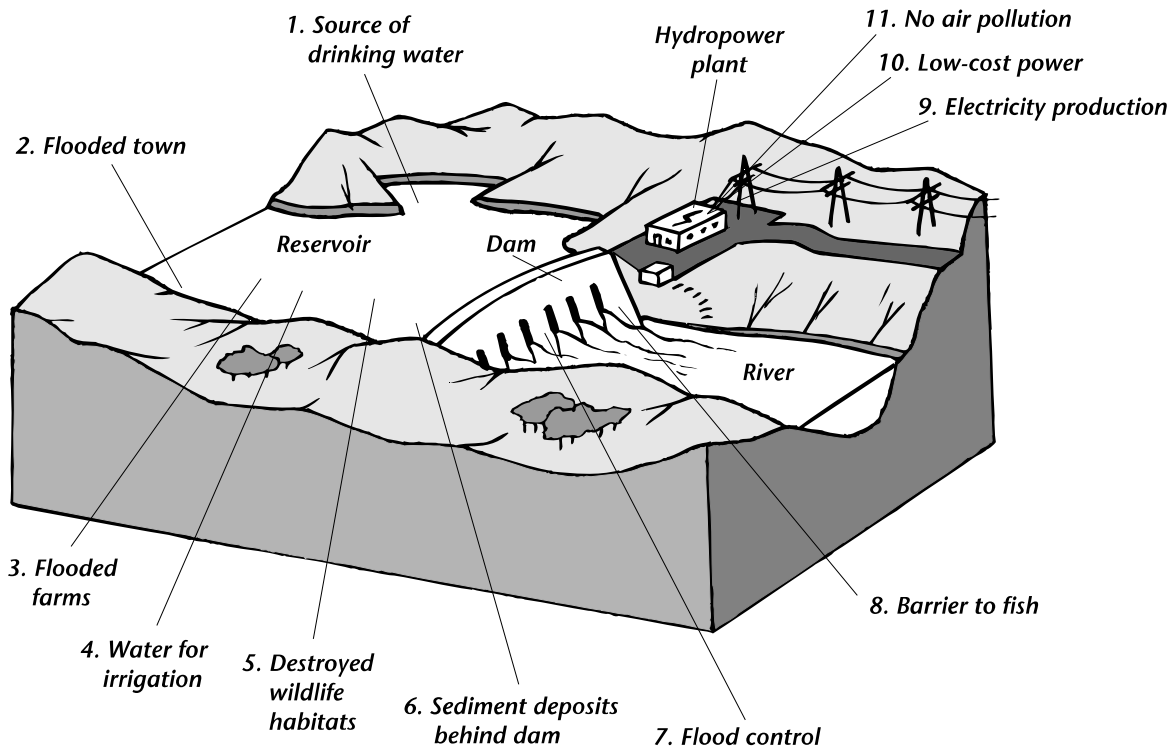
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**Freshwater Resources** ▪ *Review and Reinforce*

# Water Power

## Understanding Main Ideas

On a separate sheet of paper, classify each label on the figure below as either an advantage or a disadvantage of hydroelectric power. Then write a sentence that explains each of the labels.



## Building Vocabulary

Classify each of the following descriptions of energy by writing either potential or kinetic in the blank beside it.

- \_\_\_\_\_ 12. The form of energy of a moving object
- \_\_\_\_\_ 13. The form of energy that water behind a dam has
- \_\_\_\_\_ 14. The form of energy that is stored and waiting to be used
- \_\_\_\_\_ 15. The form of energy that flowing water has