

Freshwater Resources ▪ *Guided Reading and Study*

Water Supply and Demand

This section explains how the supply of water and the demand for water can change. The section also describes ways to conserve water and new ways of obtaining fresh water that may be used in the future.

Use Target Reading Skills

Before you read, write what you know about water conservation. As you read, write what you learn.

| What You Know |
|--|
| 1. I can conserve water by taking shorter showers. |
| 2. |
| 3. |

| What You Learned |
|------------------|
| 1. |
| 2. |
| 3. |



How People Use Water

1. Is the following sentence true or false? Water is a nonrenewable resource. _____
2. When does a water shortage occur?

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Water Supply and Demand *(continued)*

3. The condition of scarce rainfall for a few years is known as a(n) _____.

4. Circle the letter of each sentence that is true about droughts.

- a. They affect the supply of surface water.
- b. They affect the supply of groundwater.
- c. They cause the water table to rise.
- d. They may cause wells to run dry.

5. How can an aquifer be recharged naturally after a drought?

Conserving Water

6. Using a resource wisely so that it will not be used up is called _____.

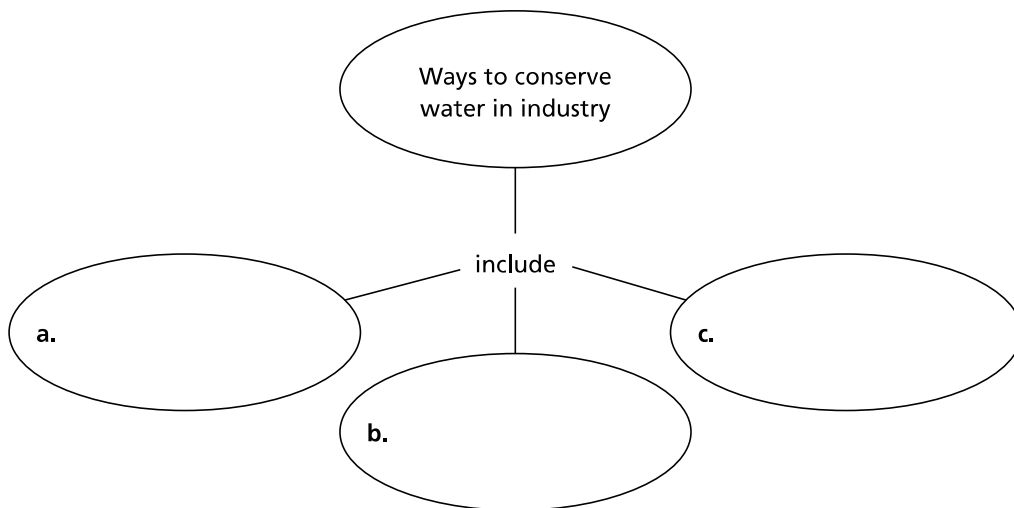
7. Circle the letter of each choice that helps conserve water in the home.

- a. Taking shorter showers
- b. Watering the lawn around noon instead of early or late in the day
- c. Keeping a pitcher of drinking water in the refrigerator
- d. Running the washing machine only when you have small loads

8. Is the following sentence true or false? In the United States, the biggest use of water is for agriculture. _____

9. How do sprinkler and drip irrigation systems help conserve water?

10. Complete the concept map.



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Fresh Water for the Future

11. Circle the letter of the choice that gives the correct sequence of steps in distillation.

- a. Evaporation, boiling, condensation
- b. Boiling, condensation, evaporation
- c. Boiling, evaporation, condensation
- d. Condensation, boiling, evaporation

12. The process of obtaining fresh water from salt water is called _____.

13. How could an iceberg be used to supply fresh water to a dry region on the coast of Africa or South America?

14. What environmental questions have been raised about using icebergs for fresh water?

Major Water Use Chart (Alphabetical Order)

Name: _____ Date: _____

Instructions: Assign the number 10 to your highest priority and 1 to the lowest.

| WATER USE | EXAMPLES | INDIVIDUAL RANKING | SMALL GROUP AVERAGE | CLASS AVERAGE |
|---------------------------|--|--------------------|---------------------|---------------|
| Ecological Value | Preservation, Wildlife Habitat | | | |
| Energy Development | Hydropower, Nuclear, Coal | | | |
| Fish and Wildlife | Otters, Whales, Trout, Moose, etc. . . . | | | |
| Human Consumption | Drinking Water, Washing, etc. . . . | | | |
| Irrigation | Corn, Cotton, Alfalfa, Carrots, etc. . . . | | | |
| Livestock | Cattle, Hogs, Sheep, Chickens, etc. . . | | | |
| Manufacturing/ Industry | Automobiles, Computers, Bikes, etc. . . . | | | |
| Recreation and Aesthetics | Fishing, Camping, Floating, Boating, Sightseeing, Beauty, etc. . . | | | |
| Transportation | Barges, Cargo Ships, etc. . . . | | | |
| Urban Development | Swimming Pools, Golf Courses, etc. . . | | | |

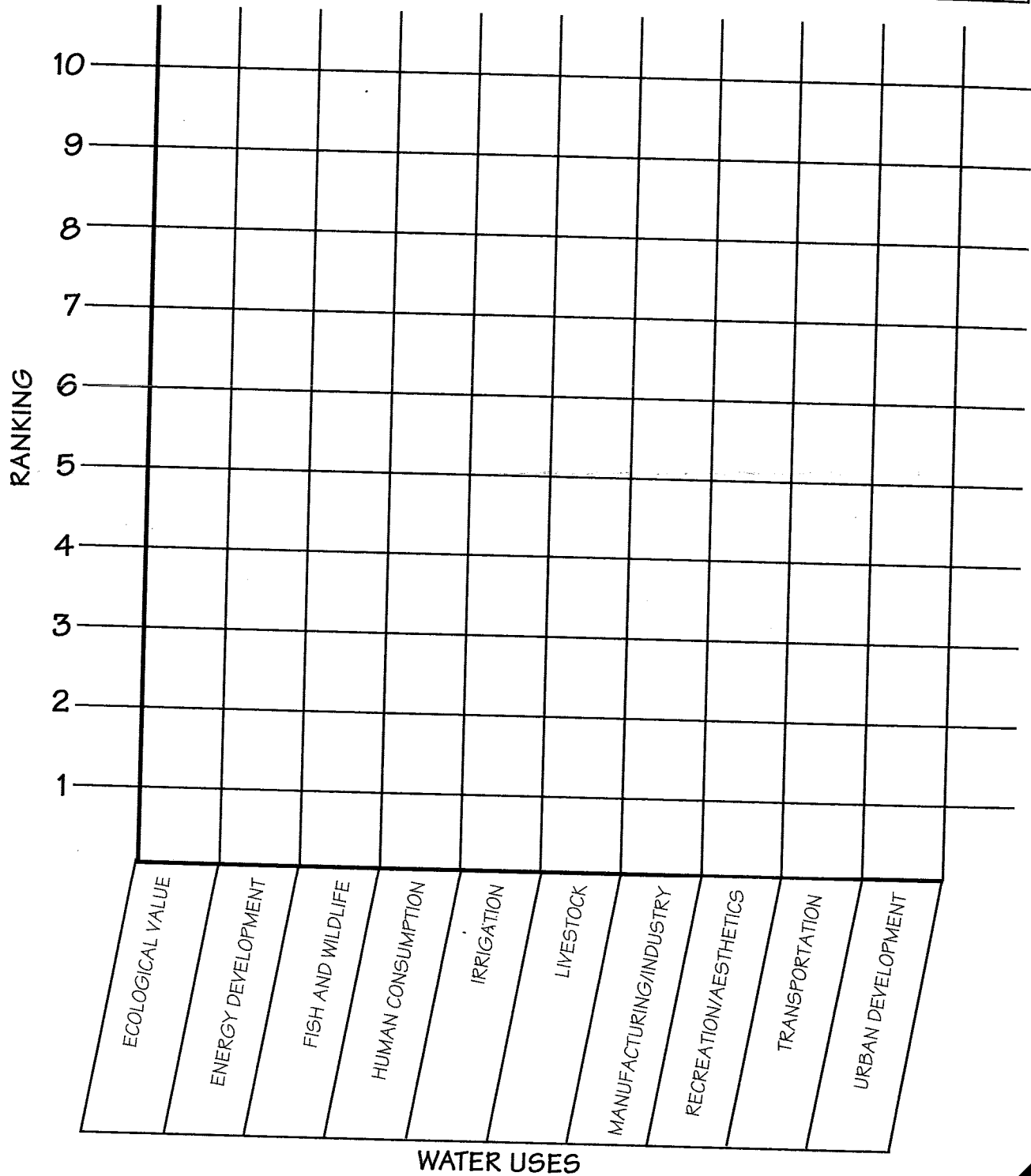


Student Ranking Line Graph

Name: _____

Date: _____

KEY BY COLOR Student: RED Group Average: BLUE Class Average: GREEN



Freshwater Resources ▪ *Review and Reinforce***Water Supply and Demand****Understanding Main Ideas**

Complete the table below by stating whether each situation generally increases or reduces the water supply.

| Situation | Affects Water Supply |
|---|----------------------|
| A drought occurs throughout a region. | 1. _____ |
| A city builds a desalination plant. | 2. _____ |
| Water is pumped from an aquifer faster than the aquifer can be recharged. | 3. _____ |
| A new mining company begins using water to flush out the mines that it digs. | 4. _____ |
| A wastewater treatment plant pumps water into shallow ponds to feed an aquifer. | 5. _____ |

Answer the following on a separate sheet of paper.

6. How does carrying irrigation water into fields through open ditches waste water?
7. Give an example of water conservation in industry.

Building Vocabulary

Fill in the blank to complete each statement.

8. The process of obtaining fresh water from salt water is called _____.
9. A process of supplying water to areas of land to make them suitable for growing crops is called _____.
10. Using a resource wisely so that it will not be used up is called _____.