5

Science Standard
5.3.a.

Student Workbook

California Education and the Environment Initiative

Earth's Water

California Education and the Environment Initiative

Approved by the California State Board of Education, 2010

The Education and the Environment Curriculum is a cooperative endeavor of the following entities:

California Environmental Protection Agency
California Natural Resources Agency
Office of the Secretary of Education
California State Board of Education
California Department of Education
California Integrated Waste Management Board

Key Leadership for the Education and Environment Initiative:

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Andrea Lewis, Assistant Secretary for Education and Quality Programs, California Environmental Protection Agency
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Key Partners:

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Human Communities and Water 7

Name: _____

Instructions: Answer the following questions using what you know and have learned about water. (5 points each)

1. Why do people need water?

_____

_____

_____

2. Think about the story of the California city that needed water to "grow." What decisions did people make about water in the story?

_____

_____

_____

_____

_____

3. Why did Los Angeles's need for water continue to grow?

_____

_____

_____

_____

_____

4. Where do you think the water in your community comes from?

_____

_____

_____

_____

_____

Name: _____

Part 1: A Taste Test

Instructions: Taste each of the water samples. In the "Taste" column, describe how the water tastes. (1 point each)

Sample	Taste	Type of Water	Ecosystem
A			
B			
C			

Name: _____

Part 2: Where's the Water?

Instructions: Using the globe, estimate the amount in fractions of salt water and fresh water on Earth's surface. Work with the members of your group to figure out your estimate. (1 point each)

Type	Estimated Fraction	Real Fraction
Salt water	/100	
Fresh water	/100	

Part 3: Surface Waters

Instructions: Working on your own, answer the following questions.

1. List the sources of fresh water on Earth. (5 points)

_____

_____

_____

2. List the sources of salt water on Earth. (3 points)

_____

_____

_____

3. Which of these sources are parts of California's environment? (2 points)

_____

_____

_____

4. How can people "run out of water"? What does that mean? (2 points)

_____

_____

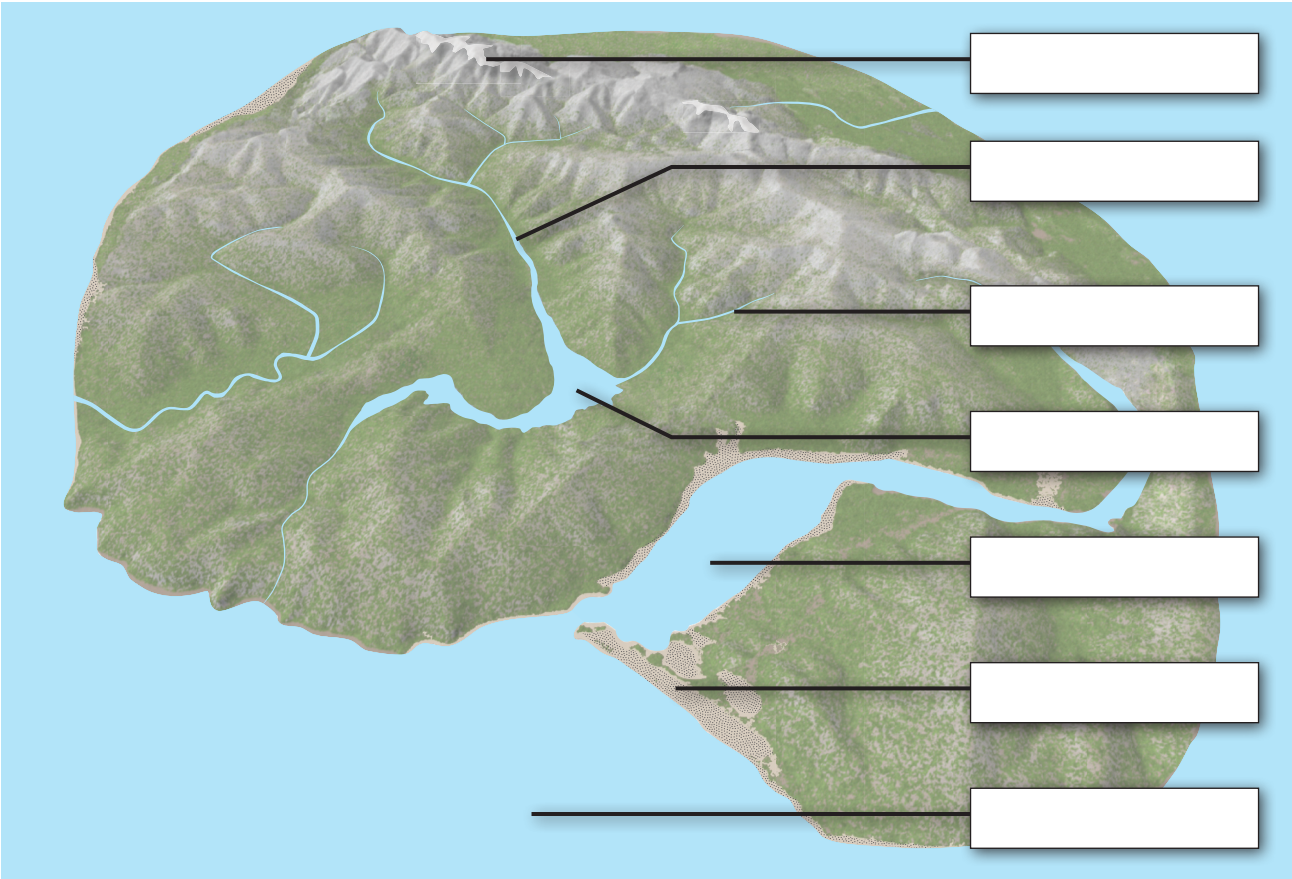
_____

_____

Name: _____

Instructions: Read the following statements and answer in the spaces provided.

1. This is a bird's-eye view of a watershed. Shade the higher elevations with a pencil. (2 points)



2. Now that you have seen how water flows over the land, use a blue pencil to mark the water pathways on the drawing above. (2 points)

3. Put the following labels on the drawing: (1 point each)

a. Stream	c. Lake	e. Bay	g. Ocean
b. River	d. Headwaters	f. Beach	

4. Describe how water moves from the top of a mountain to the ocean or under the ground. (4 points)

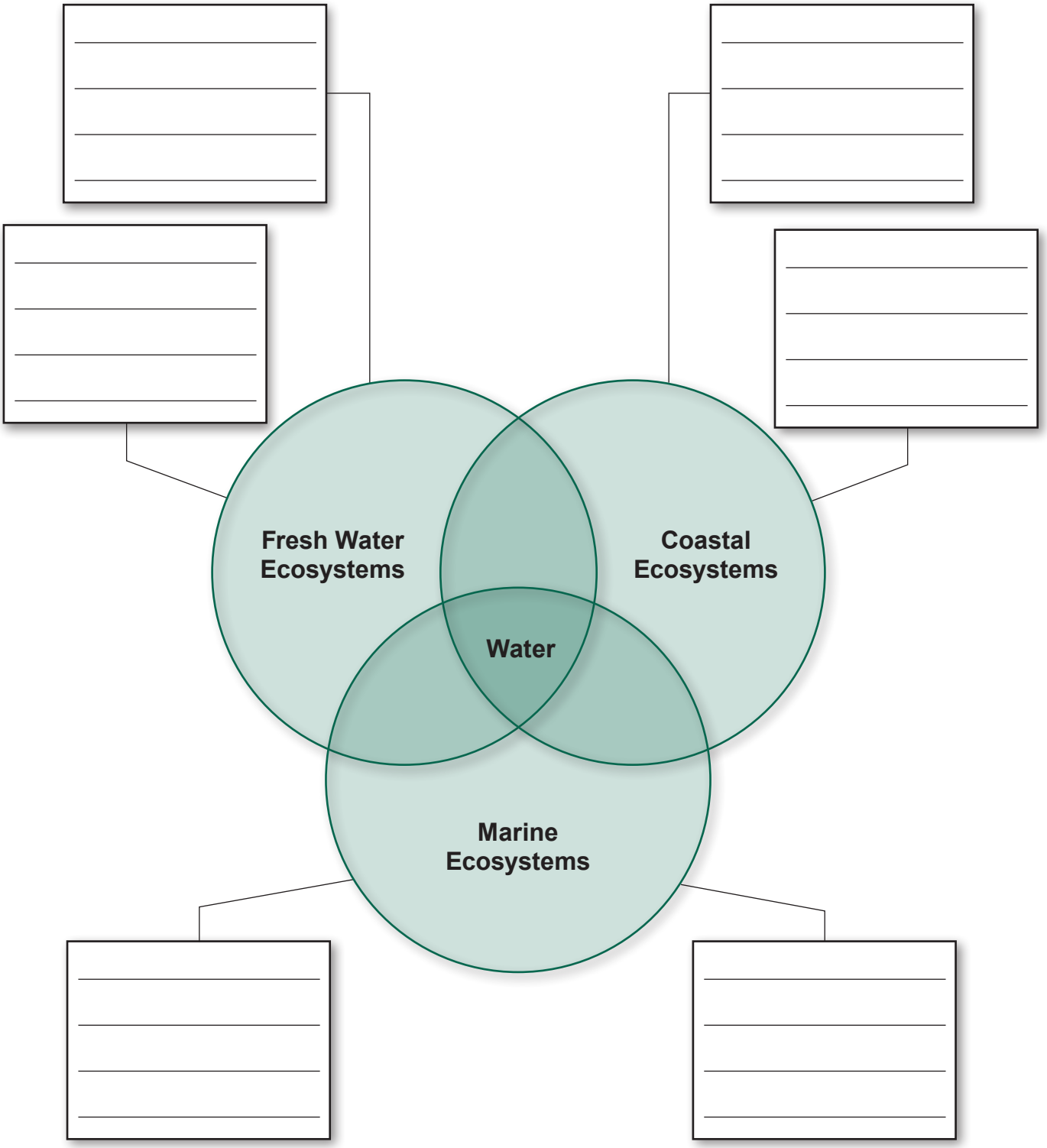
_____

_____

_____

Name: _____

Instructions: List at least two ways that each ecosystem below is important to people and our communities. Write your ideas in the boxes provided. You can add more boxes if you have more ideas. (2 points per box)



Name: _____

Instructions: Use these two pages to take notes on the presentation about **Managing California's Water**.

Channels and Levees (10 points)

What: _____

_____

_____

Where: _____

_____

_____

Why: _____

_____

_____

How: _____

_____

_____

_____

Dams and Reservoirs (10 points)

What: _____

_____

_____

Where: _____

_____

_____

Why: _____

_____

_____

Name: _____

How: _____

_____

_____

_____

Collecting and Treating Water (10 points)

What: _____

_____

_____

Where: _____

_____

_____

Why: _____

_____

_____

How: _____

_____

_____

_____

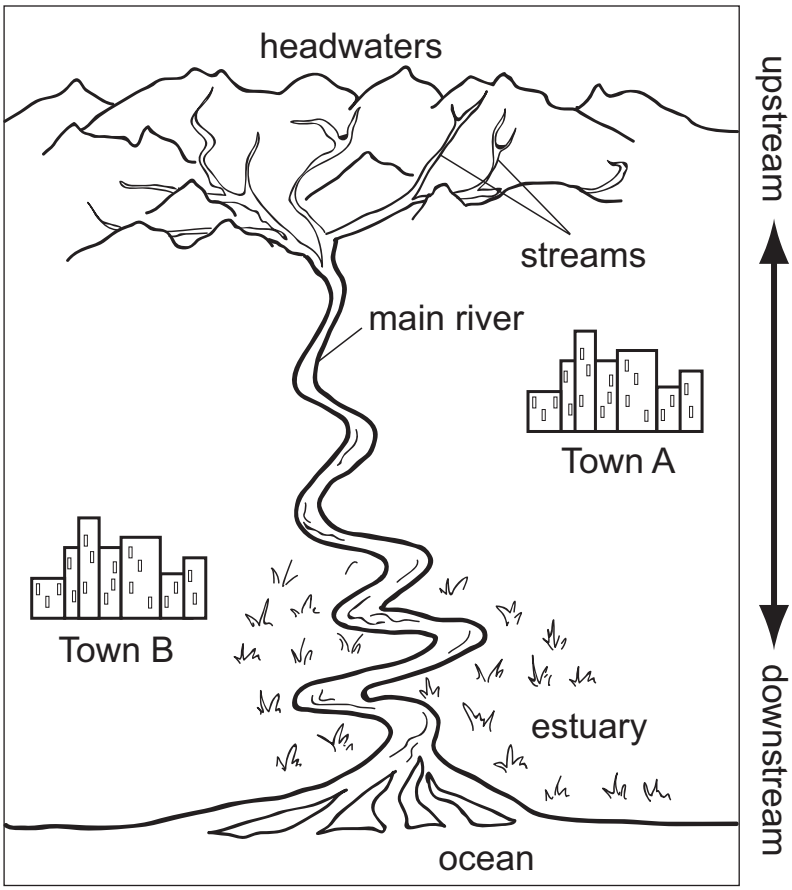
Name: _____

Instructions: Draw the following structures on the diagram. Answer the questions on the lines provided. (10 points each)

1. Draw two levees on the diagram at the right, one on each side of the river, to straighten the curves in the river near Town "A."

   How will these levees change the river?

   _____
   _____
   _____
   _____
   _____
   _____



2. Draw a dam on the diagram between Town "A" and Town "B." Fill in the reservoir that will form behind the dam.

   How will this dam and reservoir change the river and land?

   _____
   _____
   _____

3. In the above diagram, draw a wastewater treatment plant on the coast below Town "B" and draw an arrow to show where the wastewater goes after being treated.

   How will the wastewater change the river?

   _____
   _____

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