

# The Bay and You

A Watershed Journal



## Overview

This activity is meant to be integrated throughout your unit on the San Francisco Bay's Watershed. Students make a journal at the beginning of the unit and write journal entries throughout the unit.

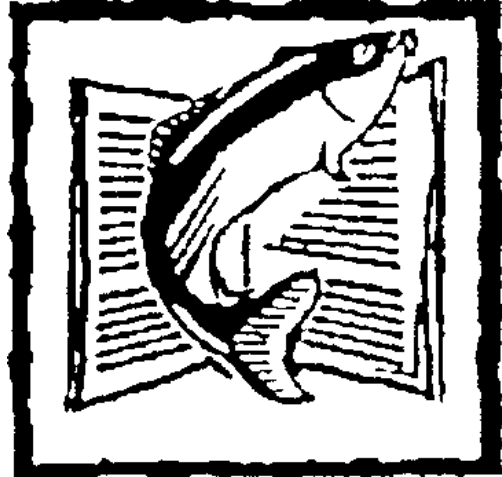
## Materials

For each student:

- Copies of Student Pages
- 30 - 50 pieces of reused 8 ½" X 11" paper (one-sided paper) - for insides of journal
- Approximately 9" X 12" mat board, foam core, or cardboard (not corrugated) - for back cover
- Approximately 9" X 12" front covers (cut from reused posters or heavy duty paper)
- Hole punches
- Thick, big rubber bands
- Sticks or pencils - approximately 8" long
- Large ziploc bags for journal storage

## Language Arts Standards

Keeping a journal can address many of the writing standards for 4th through 12th grades, specifically in writing strategies and writing applications. Fourth and fifth graders write clear, coherent sentences and paragraphs that develop a central idea and describe and explain familiar objects, events, and experiences. Sixth, seventh, and eighth graders write clear, coherent, and focused essays, with formal introductions, supporting evidence, and conclusions, and narrative, expository, and persuasive texts of at least 500 to 700 words in each genre. Ninth through twelfth graders write coherent and focused essays that convey a well-defined



perspective and tightly reasoned argument, demonstrating students' awareness of the audience and purpose. They also combine the rhetorical strategies of narration, persuasion, and description to produce texts of at least 1,500 words each. Modify journal assignments to meet these standards for different grade levels.

Journal writing can also address other standards, which are used for the content of the journal assignments. The journal assignment ideas tie into other sections of this curriculum, including evolution, ecology, history, and service learning.

## Additional Resources:

Save The Bay's Watershed Journal

<http://www.savesfbay.org>

River of Words

<http://www.riverofwords.org/>

## **Journal Entry Ideas:**

These suggested ideas for journal entries can be used after specific activities or sections of the curriculum as indicated, or used whenever it fits into your unit. You may want to store journals in ziploc bags and create a box to store all of the journals when they are not being used, so they don't get left in lockers, etc., and so you can easily carry them outside or on a field trip.

### ***Beginning of Watershed Curriculum***

#### **1. What Do We Know?**

The first entries in the journal can be used before you begin your San Francisco Bay unit, as an assessment of what your students already know and what they want to learn:

- What experiences have you had around water, such as a river, lake, ocean, or bay? Describe your experience.
- What do you already know about San Francisco Bay? What things do you want to find out about the San Francisco Bay?
- Write down a definition for the word "watershed."

### ***Introduction to the Bay's Watershed***

#### **1. Watershed Definition**

The students should revisit their definition of "watershed." Was it correct? What would their definition of "watershed" be now?

#### **2. Personal Watershed**

Students can draw their personal watershed to evaluate their background, beliefs, and goals using the metaphor of a watershed. Lead a discussion with the students about the importance of understanding their own identity and defining goals. This journal entry encourages them to look to their past, think about their present, and

make goals for the future. It's nice to provide color pencils or watercolors for this journal entry. Write down the following instructions:

- The rivers represent the first influences in our lives. What experiences did you have as a child that shaped who you are today? Where did you play? What friends, family, teachers, community members influenced you in the distant or recent past?
- The bay represents who you are now. What are the most important things in your life now, such as your friends, family, school, job, or hobbies? What do you do in your free-time?
- The ocean represents your goals for the future. What do you want to be doing in the future? What are your most important goals?

Upon completion, you can ask students who want to share their Personal Watersheds to describe their past, present, and future and show their drawing.

#### **3. Letter to a Friend**

Write a letter to a friend telling him/her how they would get to your house if they were to travel only along the waterways. Be creative!

#### **4. Watershed Metaphors**

Many objects make good representations of, or metaphors for, a watershed: a tree, the nervous system, or a bathtub, for example. Ask your students to come up with a good watershed metaphor and explain it in a descriptive paragraph or in a poem.

### ***Mapping the Bay's Watershed***

#### **1. A Paved State**

Imagine that the whole state of California, except for the streams, creeks, and rivers had been paved with concrete. Write a paragraph or two describing what would happen to these waterways when it rained.

2. **Mapping the Storm Drains**  
Have students draw a map of the outside of their school, including parking lots, play areas, and surrounding streets. Then do a walking tour of the school grounds and draw in all the storm drains. Label the storm drains A, B, C, etc. on their maps. Have students record what they see on and around each storm drain (trash, soap, oil, dirt, etc). They then, of course, pick up any trash they see! You can extend this activity by doing ongoing storm drain monitoring. Assign a group of students to each storm drain. Have them periodically check the storm drain, record their findings in their journal, and then pick up any litter they find. You can analyze the results over time – which storm drains seem to get the most litter? Which are the cleanest? Are there different types of litter found at different sites? Why?

### ***Geology of the Bay and Its Wealth of Resources***

1. **The Future Bay**  
Using what you know about the way the earth is moving and the rate of development and restoration around the bay, draw a picture and write a description of what you predict the bay might look like in the future.

### ***Evolution and Ecology of Life in the Bay***

1. **Extinction Debate**  
Are the plant and animal extinctions currently happening natural or unnatural? Should we be concerned about the loss of species on Earth or is this a natural phenomenon? Write an essay supporting your point of view.
2. **Salmon Research**  
Write a research paper about salmon. Describe their natural history, life cycles, habitat needs, threats to their survival, and what can be done to protect salmon. What

are the different points of view on salmon protection by fishermen, environmentalists, and farmers?

3. **The Human Connection**  
We have been talking about how a healthy ecosystem has high biodiversity, meaning there are many different types of plants and animals. When we talk about having many different types of *people* in an area, we say that there is diversity. How does having diversity add to human society? What are the benefits of living and working with people of many different cultures, races, religions, ages, sizes, and abilities?
4. **Design a Store**  
One reason our increasing population is harmful to the environment is that we use so much packaging for the food and other products we use on a daily basis. Imagine what it would be like to go to a grocery store where none of the products are packaged. What would it look like? How could the store owners keep everything in order? How could shoppers take items home? Design a store that uses no packaging, and draw a picture to illustrate it.

### ***History of Human Impacts on the Bay***

1. **Save The Bay Commercial**  
Create a commercial for Saving the Bay. Imagine that you have been given the opportunity to do a TV commercial for Save The Bay. You only have sixty seconds to get your message across! Write a script for your commercial and describe the visual images you would like to show.
2. **Past and Present**  
Research the history of water rights in California, from the Gold Rush to present day. How have water rights been assigned over the past 150 years? Who are the stakeholders in California's water wars? What are the issues? What are some of the

proposed solutions? Can California continue to support a growing population and agriculture? How do you think the water wars can be solved?

### 3. **Airport Debate**

Should the San Francisco Airport build new runways in the Bay? Write a persuasive essay arguing your case. Use supporting evidence and a well-defined thesis to convince your audience that you are correct.

## **Taking Action to Protect the Bay**

### 1. **Solo Sit**

Prepare a page in the journal with four columns labeled “what I see,” “what I hear,” “what I smell,” and “what I feel”. Lead a brief discussion about observation, and how we can use all of our senses to discover more about the world around us. Have each student find a place, apart from other people, to sit in silence for five minutes. Encourage students to keep their bodies as quiet and still as possible, and to use all their senses to observe their spot. After they have been sitting for five minutes, they should spend another five minutes recording observations on the page they have prepared.

### 2. **The Three Levels of Reflection**

#### • *The Mirror*

(A clear reflection of the Self)

Who am I? What are my values? What have I learned about myself through this experience? Do I have more/less understanding or empathy than I did before volunteering? In what ways, if any, has your sense of self, your values, your sense of “community,” your willingness to serve others, and your self-confidence/self-esteem been impacted or altered through this experience? Have your motivations for volunteering changed? In what ways? How has this experience challenged stereotypes or prejudices you have/had? Any realizations, insights, or

especially strong lessons learned or half-glimpsed? Will these experiences change the way you act or think in the future? Have you given enough, opened up enough, cared enough? How have you challenged yourself, your ideals, your philosophies, your concept of life or of the way you live?

#### • *The Microscope*

(Makes the small experience large)

What happened? Describe your experience. What would you change about this situation if you were in charge? What have you learned about this agency, these people, or the community? Was there a moment of failure, success, indecision, doubt, humor, frustration, happiness, sadness? Do you feel your actions had any impact? What more needs to be done? Does this experience compliment or contrast with what you’re learning in class? How? Has learning through experience taught you more, less, or the same as the class? In what ways?

#### • *The Binoculars*

(Makes what appears distant, appear closer)

From your service experience, are you able to identify any underlying or overarching issues which influence the problem? What could be done to change the situation? How will this alter your future behaviors/ attitudes/and career? How is the issue/ agency you’re serving impacted by what is going on in the larger political/social sphere? What does the future hold? What can be done?

# The Bay and You

## A Watershed Journal

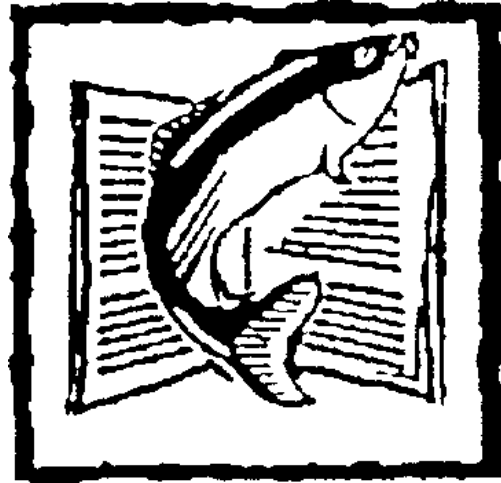
Student



Pages

### INTRODUCTION

People keep journals for many reasons. Scientists keep track of data and information in journals, people write down their daily activities and emotions in diaries, naturalists note sightings and observations in field journals, travelers record their adventures in travel logs, gardeners account for plantings in a notebook. You can record what you have experienced and learned about the environment in a Watershed Journal. After hand-making your own journal, you will use it over the course of this unit to describe your thoughts, feelings, and ideas.



### MATERIALS

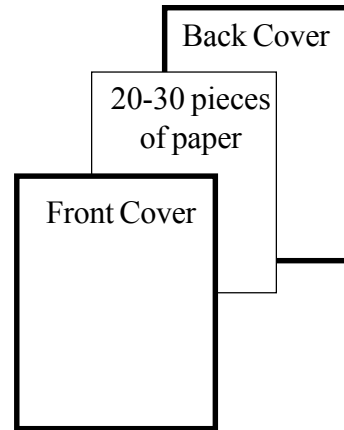
To make a journal, you will need:

- 20 – 30 pieces of reused 8 ½” X 11” paper (one-sided paper) – for insides of journal
- Approximately 9” X 12” mat board, foam core, or cardboard (not corrugated) – for back cover
- Approximately 9” X 12” front covers (cut from reused posters or heavy duty paper)
- Hole punches
- Thick, big rubber bands
- Sticks or pencils – approximately 8” long

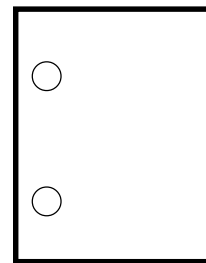
# Making A Watershed Journal



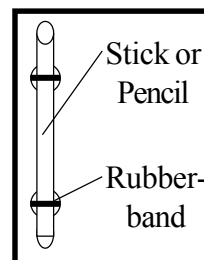
1. Stack back cover, 20 - 30 pieces of paper, and front cover in a neat pile.



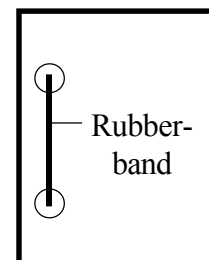
2. Using a hole punch, punch two holes through front cover, 20-30 pieces of paper, and back cover, along spine of journal. These holes must line up.



3. Poke rubber band through holes from back (you may need to use a pencil to poke rubber band through) and place stick or pencil inside rubber band on front. If you use a pencil, you will have a writing implement in an emergency, but your journal may fall apart when you need to use the pencil!



Front of Journal



Back of Journal

4. Write your name inside the front page of the journal. Voila! You have a Watershed Journal.