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NARRAGANSETT BAY: A FRIEND'S PERSPECTIVE

Teacher's Guide

Grades 5-12

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TEACHER'S GUIDE

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Introduction and Overview

The book Narragansett Bay: A Friend's Perspective and the companion 58-minute videotape program are valuable instructional resources for elementary and secondary classrooms. The book was written by Stuart O. Hale and published as Marine Bulletin 42 by the University of Rhode Island Marine Advisory Service. The videotape program, based on the book, was developed and produced by WJAR-TV and Rhode Island Hospital Trust National Bank.

Use of the book and videotape program is appropriate to a variety of subject areas such as social studies and science, and to all grade levels from upper elementary through high school. The content is divided into three main sections -- The Living Bay, The Bay in History, and Modern Times. Each section contains three or more chapters, for a total of 16.

This Teacher's Guide has been designed and written by a team of teachers, both elementary and secondary, representing several Rhode Island school districts. It contains 16 lessons which correspond to the chapters in the book and the content of the videotape program. Each lesson includes a rationale, students objectives, skills that are addressed, key terms and vocabulary, a list of materials needed, a set of classroom activities for three grade levels (Elementary, Junior High School, and Senior High School), suggestions for evaluating student achievement, and some activities to extend the lesson beyond the classroom or the recommended time requirements. Most lessons also include a single-page Master for use in the lesson. The teacher can use these to produce handouts for the students and/or a transparency for an overhead projector. A Glossary of the key terms and vocabulary used in the lessons is provided as well as a section on additional resources that the teachers may find helpful.

Special thanks are extended to WJAR-TV, Rhode Island Hospital Trust National Bank, and the Rhode Island Department of Education for providing this instructional package to hundreds of teachers and public schools in the state. The sponsors and the design team hope you will find these materials to be helpful in teaching our students about the most important natural resource of Rhode Island.

TITLE: "Topography and Geology"

TIME: Two Class Periods

RATIONALE

Narragansett Bay has provided both income and recreation to generations of Rhode Islanders. Its close proximity to residents of the state makes it a valuable resource for everyone. The purpose of this lesson is to acquaint students with the physical features of the Bay. To provide greater depth, an objective on the physical evolution of geology of the Bay has been included,

STUDENT OBJECTIVES

Students will be able to:

1. Identify the three entrances or passages into Narragansett Bay, other bays such as Mount Hope Bay, and the major salt marshes.
2. Identify the southern limits of Narragansett Bay.
3. Identify the three major islands of the Bay as well as some of the bay's smaller islands.
4. Explain how the Bay was molded over a two million year period by the movement of glaciers.

SKILLS ADDRESSED

mapping writing reading listening

KEY TERMS/VOCABULARY

East Passage salt marshes moraines
West Passage Cliff Walk Pleistocene Epoch
glacier Sakonnet River

MATERIALS

1. Book, pp. 1-5
2. Videotape program
3. Handout prepared from Master #1
4. Overhead transparency prepared from Master #1

ACTIVITIES

Elementary

1. Half the students will form three lines, imitating the Bay's three islands. The second half will walk up the West Passage, down the East Passage, and back up the Sakonnet River.

2. Students will put a square of clay, one half inch thick, in a baking pan. They will then make a fist, place pebbles between their fingers, and run their fist over the clay, reenacting the glacial formation of the Bay. Realism will be heightened if water is now added to the pan.

Junior High School

1. Using copies of the handout, have the students label the West Passage, East Passage, the Sakonnet River, and other bays, inlets, coves, salt marshes, etc.
2. Students will make a reference model of the Bay using blue poster board and clay.

Senior High School

1. Same as Junior High School Activity #1, but with more detail.
2. Students will make a reference model of the Bay using blue poster board and clay. Major physical features, recreational areas, and areas of pollution will be shown.

EVALUATION

maps quizzes projects

EXTENDING ACTIVITIES

1. Make collages, depicting the varied activities performed on the Bay.
2. Make collages of glaciers.



HANDOUT-NARDAGANSETT BAY

TITLE: "Winds and Tides"

TIME: Two class periods

RATIONALE

The importance of the winds and tides along Narragansett Bay in Rhode Island is most evident during the warm summer months when most landlocked communities are wrestling with uncomfortable temperatures. For the Bay visitor or inhabitant, this is not so. The cooling winds and movements along the Bay can be most comforting. However, great storms that visit the Bay can have devastating effects on people and property in the region.

STUDENT OBJECTIVES

Students will be able to:

1. State the positive and negative effects of the winds and tides on Rhode Island communities.
2. Describe the ecological impact of the great storms on the Bay communities.
3. Analyze and describe the impact of the growth and development of the waterfront communities on the Bay.

SKILLS ADDRESSED

reading writing speaking listening critical thinking

KEY TERMS/VOCABULARY

fetch	hurricane	inlet	brackish
chop	gale	cove	salinity

MATERIALS

1. Book, pages 7-13
2. Videotape program

ACTIVITIES

Elementary

1. Have the students write or tell a story of a visit to the seashore on a warm summer day.
2. In a class discussion with the teacher, have the students show the differences between a hurricane and a gale. As part of the discussion, have them explain the ways to prepare for these kinds of storms.

Junior High School

1. After viewing the video, have the students write a story detailing the impact of the winds and tides on the Bay communities as a result of one of the great storms.
2. Have the students, as part of a library assignment, investigate the impact of the erosion of the Rhode Island coastline as a consequence of the building explosion that has taken place.

Senior High School

1. Have the students develop a series of interview questions on an experience of living through one of the twentieth century great hurricanes. Upon completion of the format, have the students conduct the interview and share their findings with the class.
2. Have the students write an editorial on the effects of building development along the coastal areas on the economy and ecology of the state.

EVALUATION

Written products and/or the classroom discussion

EXTENDING ACTIVITIES

1. Have the students collect pictures of 20th century storms and share them with the class.
2. Have the students collect data on the ecological changes taking place along the coastline as the areas continue to develop.
3. Have the students create a poster indicating safety measures to be taken to prepare for a storm, such as a hurricane.

TITLE: "Fish and Other Creatures"

TIME: Two class periods

RATIONALE

From the time of Roger Willliama, man has found Narragansett Bay a most valuable resource. Narragansett Bay, because of its location, contains both northern, cold-water forms and southern forms of marine life. The story of Narragansett Bay is really told by the plants, animals and humans interacting there. The purpose of this lesson is to learn of the world above and beneath the surface of the Bay, and how these worlds survive.

STUDENT OBJECTIVES

Students will be able to:

1. Explain the importance of the food chain in relationship to the life below and above the surface of the Bay.
2. Identify the single most characteristic inhabitant of Narragansett Bay, as well as list and describe a variety of seasonal and permanent marine life of the Bay,
3. Identify and describe a variety of waterfowl, at and above the surface of the Bay, subsisting on the subsurface food chain.

SKILLS ADDRESSED

reading writing speaking listening critical thinking

KEY TERMS/VOCABULARY

food chain	Continental Shelf	spawn	crustacean
turbidity	mollusk	bivalve	anemone
estuary	quahaug		

MATERIALS

1. Book, pages 14-24
2. Videotape program
3. Handout prepared from Master #4
4. Dictionary and encyclopedia (or other resources)
5. Copies of the chapter for Junior and Senior High level students

ACTIVITIES

Elementary

1. After viewing the videotape program, the students will write at least five facts presented.

2. Have the class build an aquarium.
Materials - a shoebox, blue and black tempera paint, sand, pieces of construction paper (assorted colors), thread, scissors, seashells, glue, pieces of driftwood, etc. The students will make an aquarium showing the different forms of fish that live in Narragansett Bay.

Basic Directions - Paint the inside of the box with blue tempera paint. Paint the outside black. Spread glue on the inside bottom of the box. Sprinkle sand on glue. Place seashells and small pieces of driftwood on the bottom. Make two of each shape. Cut different lengths of thread. Place a piece of thread between two matching shapes and glue together. Before gluing the two fish pieces, you may wish to stuff a little newspaper or tissue inside to give the fish a more three-dimensional look.

Junior High School

1. Using the teacher-prepared handout and a dictionary, the students will classify/categorize types of marine life into the following groups/headings: fish, shellfish, crustaceans, waterfowl. (It would be helpful for the students to view the videotape program first, as well as have a copy of this chapter's pages).
2. Same as Elementary activity #1, but expand to have students write at least eight facts presented in the videotape.

High School

1. Using a copy of the chapter and other resources, the students will diagram and write a report on the food chain as it relates to Narragansett Bay, specifically naming inhabitants.
2. After viewing the videotape program and/or using additional resources, the students will answer the following questions in detail:
 - a. How did Narragansett Bay develop from the Glacier Age?
 - b. What is the bottom of the Bay like to those who dive it?
 - c. Explain how the Bay's geographic location has an effect on its marine life.

EVALUATION

1. Class discussion and participation
2. Written assignments and other projects
3. Teacher-made testing instruments

EXTENDING ACTIVITIES

1. As a class project, students can collect recipes of dishes made with native Bay marine life. A cookbook can later be made.
2. Students can make an illustrated calendar of Bay inhabitants including a brief written description of the "usual" life in and on the Bay during each of the months of the years. Students should indicate water temperature and information on the natural rhythm of the Bay as appropriate.
3. After viewing the videotape program, students will be prepared to discuss at least two dangers a diver must be aware of before diving into the West Passage of the Bay. Are there alternatives/technology available to people doing this?
4. Research the Wetlands Act and some of its provisions.
5. Do some research on the life and adventures of Don Bousquet, Rhode Island author and cartoonist who made the "quahaug" famous.

DO YOU KNOW WHAT LIVES IN AND ON NARRAGANSETTBAY?

Master #4

Rewrite each word below under the a propriate heading. Remember to use a dictionary.

cormorant
lobster
quahaug
egrets
fluke
ibis
heron
barnacles

scup
osprey
steamers
mussel
herring gull
winter flounder
gulls

merganser
tautog
blue heron
duck(s)
herring
sea bass
blueshell crab

yellowleg
cunners
bluefish
squeteague
sandpiper
swan
turnstones

FISH

CRUSTACEANS

WATERFOWL

SHELLFISH

TITLE: "Indians and Colonists"

TIME: One class period

RATIONALE

Narragansett Bay was the principle resource for the Indian's survival. Its surrounding lands served as a haven for the Colonists against religious persecution. The Indians and Colonists peacefully shared the benefits of Narragansett Bay for almost half a century. The purpose of the lesson is to learn about the richness of Narragansett Bay as a lifeline to both the Indians and the Colonists and the disputes that developed over this territory.

STUDENT OBJECTIVES

Students will be able to:

1. Describe the principle benefits of Narragansett Bay for the Indians.
2. Describe the decline in the relationship between Indians and Colonists involving the land adjacent to Narragansett Bay.

SKILLS ADDRESSED

reading writing speaking listening drawing mapping

KEY TERMS/VOCABULARY

periwinkle	reservation	sachem
quahaug	sect	wampum

MATERIALS

1. Book, pages 29-33
2. Videotape program
3. Large white paper or posterboard
4. Rhode Island Highway Map
5. Colored markers

ACTIVITIES

Elementary

1. Illustrate and label on a large white paper or posterboard the various ways Indians fished and hunted for food in Narragansett Bay.
2. Describe how wampum was made and used by the Indians with the Colonists.

Junior High School

1. Divide the class into small groups and compile a list of places (cities, towns, rivers, street names, etc.) in the Narragansett Bay area that bear a name of Indian origin. This activity will reinforce the presence of Indian influence in Rhode Island.
2. Have students pretend they are Narragansett Indians and must provide food for their families. Have them write paragraphs describing how they would use the resources of Narragansett Bay to accomplish this.

Senior High School

1. Using the book, discuss the King Philip War. Have students write a newspaper editorial about the plight of the Bay's Indians in 1676 (after the war) from the perspective of the Indians or the Colonists.
2. Based on the discussion the students will:
 - a. Name the first English settlements around Narragansett Bay and locate them on a map.
 - b. Name at least three religious sects, identify where they sought refuge in the bay region, and briefly describe each.

EVALUATION

1. Group work
2. Teacher-made test

EXTENDING ACTIVITIES

1. Create a mural of how Roger Williams might have seen Indian life in and around Narragansett Bay.
2. State a debate with each side presenting views (pro-Indian vs. pro-Colonist) on issues resulting in the King Philip War. Take a class vote regarding the issues.
3. Assign each student to one of the first English settlements around Narragansett Bay. The student then will list at least five facts (elementary), seven facts (junior high), or ten facts (senior High) about that settlement.
4. Giovanni da Verrazano, a Florentine navigator sailing for the King of France, visited Narragansett Bay in 1524. Research and write a composition about his life and his impressions of the Bay.

5. Write the term "Narragansett Tribe" on the chalkboard. Have students make as many words as they can from it. Set a specific time limit and minimum number of letters per word. When finished, share words in class.
6. Invite the Rhode Island Legacy Program to perform at your school.

TITLE : "Maritime Commerce"

TIME: One class period

RATIONALE

In the seventeenth century, Rhode Island was sometimes referred to as "the Garden of New England," because it has a broad band of fertile land which surrounds the waters of Narragansett Bay. The state's inhabitants were quick to take advantage of this land, and a maritime commerce, based on export agriculture, thrived as early as 1650. In the century which followed, this trade became increasingly sophisticated, and large merchant fortunes were made. In this unit students will be able to see how Rhode Islanders combined the resources of land and Bay to produce a successful maritime economy.

STUDENT OBJECTIVES

Students will be able to:

1. Identify the surplus products which encouraged Rhode Islanders to develop a commercial economy.
2. Identify the reasons why trade with the West Indies prospered, and how this trade eventually led to the slave trade.
3. Describe in general terms the smuggling, piracy, and privateering which took place on the Bay.

SKILLS ADDRESSED

mapping reading writing listening speaking

KEY TERMS/VOCABULARY

piracy privateer indentured servant
smuggling Garden of Eden

MATERIALS

1. Book, pp. 35-41
2. Videotape program
3. Handout prepared from Master #3
4. Overhead transparency prepared from Master #3

ACTIVITIES

Elementary

Students will re-enact the rum-for-slave trade. They will rearrange their desks into three sections to represent Rhode Island, the West Indies, and Africa. They will take cargoes to each location, and end the voyages with a slave auction.

Junior High School

1. Students will work with the map handout, drawing, in the major trade routes of the Rhode Island merchants.
2. Captain Kidd will hold a press conference, explaining why he valued Narragansett Bay so highly.

High School

1. Same as Junior High School activity #1.
2. A Newport merchant will hold a press conference, defending his participation in the slave trade.

EVALUATION

maps, quizzes and student activities

EXTENDING ACTIVITIES

1. Students will investigate the careers of pirates who visited Narragansett Bay.
2. Students will prepare a ship's manifest with a listing of the typical products which were shipped from Rhode Island.
3. Students will view the first section of "Roots," which depicts the Middle Passage.



Master 03

TITLE: "The Revolutionary War"

TIME: Two class periods

RATIONALE

During the Revolutionary Era, Rhode Island was in the vanguard of the resistance to British policies. This rebellious spirit reflected economic and political self-interest resulting from the colony's relationship with the sea. The Rhode Island economy, especially that of Newport, depended upon trade, most notably the triangular trade. Molasses, rum, and slaves were the foundation of Newport prosperity, and Rhode Islanders were adept at circumventing British navigation laws. Narragansett Bay drew the British to Rhode Island, first to enforce customs regulations and then, during the Revolution itself, to blockade the Bay and occupy Aquidneck Island. In the end, the war changed Rhode Island. Newport, subjected to both British and French occupation, emerged with its trade destroyed while Providence rose to dominate the Bay and the new state. In this lesson students will examine how Rhode Island's relationship with the sea motivated and controlled its participation in the American Revolution.

STUDENT OBJECTIVES

Students will be able to:

1. Explain why Rhode Island's resistance to British policies was motivated by both "politics and profit."
2. Identify the major events of the Revolutionary period that occurred in and around Narragansett Bay.

SKILLS ADDRESSED

reading writing speaking listening mapping

KEY TERMS/VOCABULARY

duty revenue ship grounded blockade ally
import boycott privateer fortifications
men-of-war

MATERIALS

1. Book, pp. 42-47
2. Videotape program
3. Handout prepared from Master #2
4. Handout prepared from Master #5

ACTIVITIES

Elementary

1. View the pertinent segment of the videotape and discuss how the narrator's statement that Rhode Island's revolutionary spirit was motivated by "politics and profit" applies to the Gaspee affair. Have students pose as colonists and write letters to the editor of the Providence Gazette or the Newport Mercury expressing their opinions of the Gaspee raid.
2. Have students design a blockade of Narragansett Bay using the handout from Master #2. They should draw in symbols for the British warships and label the following: a) West Passage; b) East Passage; c) Sakonnet River; d) Newport; e) Aquidneck Island; f) Conanicut Island; and g) Prudence Island. Discuss why the vessels would be stationed in particular spots.

Junior High School

1. View the videotape and discuss colonial motives for resistance as in Elementary Activity #1. Have students pose as participants in the Gaspee affair and write friendly letters to friends or relatives relating their knowledge of the event. Possible roles are: a) Lt. William Duddingston, commander of the Gaspee; b) John Brown, Providence merchant and leader of the raid; c) John Mawney, colonist who treated Lt. Duddingston's wound; d) the wife of a colonial raider.
2. Have students locate and label several Revolutionary events on handout prepared from Master #2. Select events from the timeline handout prepared from Master #5. Discuss the significance of the locations.

High School

1. View the videotape and read pp. 42-47 in the book. Discuss colonial motivations for resistance as in Elementary Activity #1. Have students pose as colonists or British officials and write diary entries. Possible roles include: a) Capt. William Reid, commander of the British ship Liberty; b) Abraham Whipple, sea captain in the Continental Navy; c) Capt. Wallace of the Rose; d) a Bristol housewife whose home was destroyed by the British; e) a British soldier stationed in Newport; f) the wife of a Newport Loyalist whose property has been confiscated.
2. Have students design a timeline of Revolutionary events that occurred in and around Narragansett Bay, using handout from Master #5.

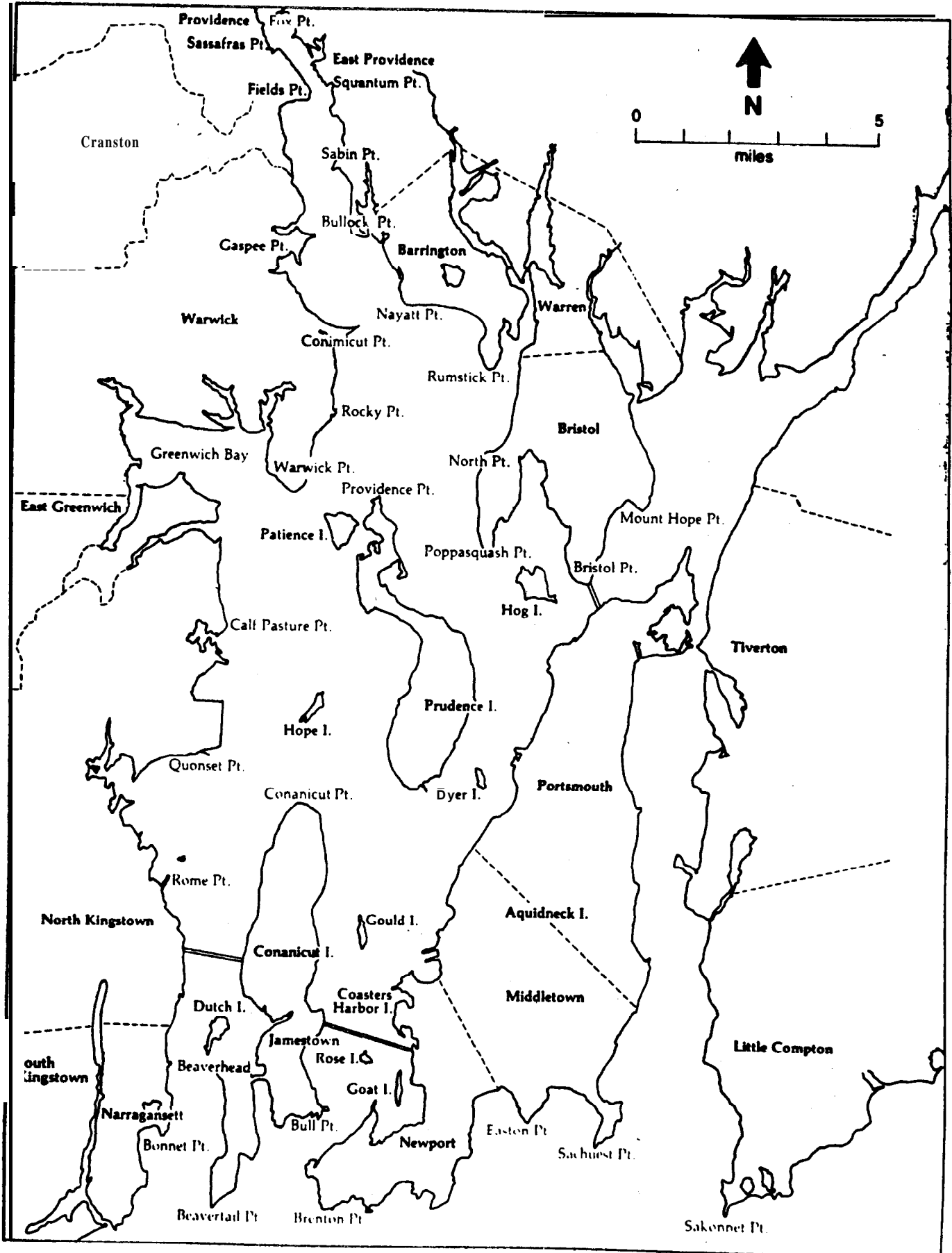
EVALUATION

1. student products
2. teacher-made test

EXTENDING ACTIVITIES

1. Create a newspaper based on events in Revolutionary Rhode Island. Papers should include a variety of items such as a) news stories (e.g. "Gaspee Burned on Namquit Point," "Block Island Raided"); b) feature stories (e.p. "An Exclusive Interview with Capt. Wallace of the Rose"); c) editorials and letters to the editor (e.g. "Esek Hopkins Falsely Accused," "French Fleet Deserts Rhode Island in Time of Need"); d) Dear Abby (e.g. "My Boyfriend's a Tory and I'm a Rebel"); e) political cartoons and sketches of events and personalities; f) maps (e.g. the Battle of Rhode Island, defenses of Narragansett Bay; g) obituaries (especially of war dead); h) advertisements (e.g. "White Horse Tavern to Reopen Soon"); i) local news briefs (e.g. "General Assembly to Meet Monday").
2. Have the Rhode Island Legacy Program, Revolutionary Fire: The Gaspee Incident, visit the class.

Figure 1. Narragansett Bay



Name	Date
Directions:	Below is a chronology of several major Revolutionary War events that occurred in and around Narragansett Bay. Using this information, design an original time line depicting the events graphically. Illustrate your time line with drawings or photographs. This assignment may be completed as homework if necessary.
Aug. 27, 1765	Stamp Act riots In Newport force the Stamp master Augustus Johnson to quit his job.
July, 1769	The British ship the <u>Liberty</u> is destroyed in Newport Harbor by angry citizens.
July 9-10, 1772	Rhode Island colonists burn the British schooner <u>Gaspee</u> on Namquit Point.
June 15, 1775	The Rhode Island sloop <u>Katy</u> captures the British sloop <u>Diana</u> near Conanicut Island.
Dec 10, 1775	The H.M.S. Rose raids Conanicut Island.
Dec. 21, 1775	Esek Hopkins becomes commander of the Continental Navy.
Mar. 17, 1776	The Continental Navy returns to Providence after the victory In Nassau but is trapped in the Bay by British ships.
May 4, 1776	The Rhode Island General Assembly, meeting In Providence, renounces allegiance to King George III.
Dec.. 8, 1776	The British occupy Newport.
July 9, 1777	British General Richard Prescott is captured in Portsmouth by Col. William Barton's raiders.
Aug. 30, 1777	The H.M.S. Rose raids Block Island.
Apr. 30, 1778	The Continental frigate <u>Providence</u>, under Capt. Abraham Whipple, runs the British blockade of the Bay.
May 25, 1778	The British raid Warren and Bristol.
June 29, 1778	The French fleet arrives off Newport.
Aug. 9. 1778	The Continental army moves from Tiverton to Aquidneck Island.
Aug. 29, 1778	The Battle of Rhode Island, fought in Portsmouth, fails to free Newport from British control.
Oct. 1778	Silas Talbot's sloop captures the British ship Pigot that is blockading the passage between Newport and Little Compton.
Oct. 25, 1779	The British leave Newport for good.
July 10, 1780	The French army occupies Newport.
June 10, 1781	The French army leaves Newport headed for Yorktown, Virginia.

Source :
 Wright, Marion I. and Sullivan, Robert J. The Rhode Island Atlas. Providence: Rhode Island Publications Society, 1982, pp. 137-44. Note: Many other events are listed in this source if the teacher or student would like to expand the list above.

TITLE: "The China Trade"

Time: One class period

RATIONALE

The purpose of this lesson is to have students learn about Rhode Island's involvement in world trade, especially in the China Trade during the nineteenth century. As the century unfolded, the influence of this trade and other economic activity on Narragansett Bay and Rhode Island shaped the image of the state. By following the voyages of famous sea captains and other activities, students will expand their knowledge of the history of the Bay and Rhode Island, while enhancing their critical thinking skills.

STUDENT OBJECTIVES

Students will be able to:

1. Identify locations that were part of Rhode Island's involvement in world trade at the beginning of the nineteenth century.
2. Assess the reasons for the changing economic activity that has taken place on the Bay during the nineteenth century.
3. Analyze the effect of the Industrial Revolution on the life of the Bay.

SKILLS ADDRESSED

reading writing speaking listening mapping critical thinking

KEY TERMS/VOCABULARY

embargo monopoly privateer spermaceti candle

MATERIALS

1. Book pages 48-55
2. Videotape program
3. Handout prepared from Master #3

ACTIVITIES

Elementary

1. After the teacher tells students the story of Rhode Island's role in the China Trade, have students trace the journey of one of the famous sea captains identifying the stops on their voyage.
2. Have students develop a class list of goods that were exchanged in the China Trade, telling the importance of the good as a trade item.

Junior High School

1. Have students complete a map showing the journey of one of Rhode Island's famous sea captains. After completing the map, have students develop a log of the journey, role-playing one of the members of the crew.
2. Have students discuss the events of the nineteenth century that caused Rhode Island's merchants to move away from maritime commerce. Ask them to focus on the other types of industry that grew in Rhode Island and the reason for this growth.

Senior High School

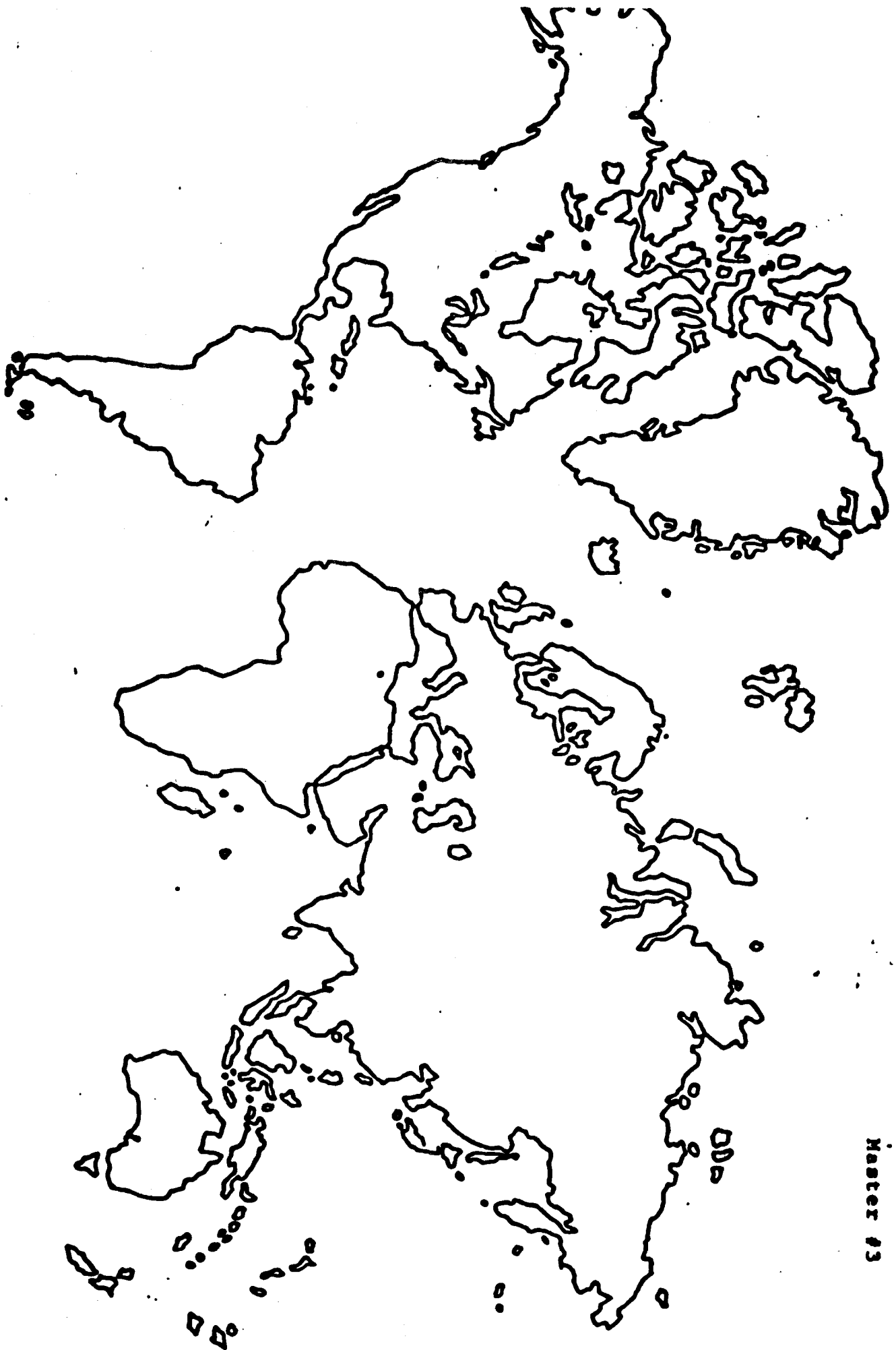
1. Have students create a log role-playing a member of the crew of a whaling ship. On the handout from Master #3, have them trace the journey of the ship.
2. Have students trace the changing role of the Bay in the nineteenth century, discussing the reasons for the change and the types of goods that were produced and exchanged. As part of the discussion, they should also compare these trade goods to goods traded today.

EVALUATION

map and log activity

EXTENDING ACTIVITIES

1. Have students produce biographical sketches of some of the famous nineteenth century sea captains.
2. Take students on a field trip to the John Brown House or one of the other famous Rhode Island sea captain's houses.
3. Have students research some of the other industries that grew along the Bay and describe the impact that these industries had on the life of the Bay.



Master #3

TITLE: "Paddle Wheels and Steam"

TIME: One class period

RATIONALE:

The advent of steampower on Narragansett Bay came about slowly because of the resistance to change by many Rhode Islanders who were comfortable with the fast packet sloop. Sailing ships carrying the cargo and steamboats carrying passengers became the accepted procedure on Narragansett Bay. This lesson will examine some of the activities that took place on the Bay as Rhode Island made the transition from sailpower to steampower, and question the advantages and disadvantages of this new technology on the Bay.

STUDENT OBJECTIVES

Student will be able to:

1. Identify the advantages and disadvantages of steampower versus sailpower.
2. Describe the impact of steampower technology on the life of the Bay.
3. Identify the major personalities during the advent of the steamboat.

SKILLS ADDRESSED

reading writing speaking listening critical thinking

KEY TERMS/VOCABULARY

sailing packet schooner

MATERIALS

1. Book pages 56-61
2. Videotape program

ACTIVITIES

Elementary

1. Have students draw pictures (illustrations) of sailing vessels and steam-powered vessels. This should be followed up with a discussion of the differences between sailpower and steampower.
2. Have students write a newspaper article or editorial explaining the advantages of using steam-powered boats on the bay.

Junior High School

1. Have students write a simulation of a voyage from New York to Providence on a sailing ship vs. a steam-powered ship. Their thoughts should be shared with the class.
2. Have students draw an advertisement for a steamship company attempting to establish itself in the Narragansett Bay area.

Senior High School

1. Have students role play an aspiring entrepreneur of a Narragansett Bay community. In the activity, have them identify the type of activity in which their ship will be involved and the impact that this work will have on the communities involved.
2. Have students discuss the positive and negative aspects of the advent of steampower on Narragansett Bay. Be sure to have them identify the effects on the quality of life on the Bay.

EVALUATION

written work, class discussion, and graphic projects

EXTENDING ACTIVITIES

1. Have students create a bulletin board display of the exteriors and interiors of sailing vessels and steamboats of years past and compare them with vessels today.
2. Have the students research the effect of steampower on the life of the Bay.
3. Have the students investigate the lives of the famous personalities mentioned in the chapter or video.

TITLE: "Resorts and Recreation"

TIME: One class period

RATIONALE

During the 1800's, leisure time was a direct by-product of industrialization in America. Recreational growth during this period evolved along class lines. The onset of rail and steamer lines allowed for the expansion of shore-side opportunities on and around Narragansett Bay. Boating dominated recreational activities in the 19th century. This interest brought about changes in shipbuilding techniques. The purpose of this lesson is to learn the importance of the resources of the Bay in the development of recreational activities in Rhode Island.

STUDENT OBJECTIVES

Students will be able to:

1. Name the various kinds of recreational activities the Rhode Islanders have enjoyed from the 1800's to the present involving Narragansett Bay.
2. Describe the kinds of transportation that were used to travel on and along the shores of Narragansett **Bay**.
3. Summarize the role of the Herreshoff family in the development of shipbuilding.

SKILLS ADDRESSED

reading writing speaking listening. drawing

KEY TERMS/VOCABULARY

recreational steamer resort
clambake yacht dinghy

MATERIALS

1. Book, pages 62-71
2. Videotape program
3. Handout prepared from Master #6 for Extending Activities
4. Free Multiple Listing Service booklets

ACTIVITIES

Elementary

1. Have each student select a recreational activity that has been discussed in this lesson involving Narragansett Bay, then write a paragraph of at least six sentences describing the activity and why.

2. List and illustrate the ingredients for a traditional Rhode Island clambake, The procedure for securing and preparing the ingredients may be included in a sequencing activity.

Junior High School

1. List the types of recreational activities involving the Bay that were enjoyed by affluent society and those enjoyed by the average person during the 1800's. Discuss how each may have traveled to get there. Note whether these same recreational sites (i.e., Crescent Park) are enjoyed today by Rhode Islanders.
2. Following classroom discussion of key recreational communities, the student will use the classified ads (newspapers and free Multiple Listing Service booklets) to read, cut out, and organize clippings of ads pertaining to property for sale in Narragansett Bay. Students should categorize the ad location into East Bay and West Bay communities.

Senior High School

1. Based on class discussion and viewing the video, students will be able to state at least five facts about the role the Herreshoff family played in recreational boating from 1863 to the present.
2. Students will be expected to draw upon their five senses and write a short story or composition about a picturesque recreational activity or site on Narragansett Bay. The site may be of the past or present.

EVALUATION

student contributions

EXTENDING ACTIVITIES

1. Narragansett Bay Art Festival Class Project. Entry specifications: submit an original drawing, painting or photograph of a nautical scene involving Narragansett Bay. The piece should be titled.
- 2, Seacraft Challenge. Once there has been a thorough discussion of the chapter divide the class into groups of five. Distribute the teacher-prepared handout from Master #6. Have students match the type of sea-craft with its definition. After a set time limit the whole class should share findings. Comparing and contrasting skills will take place.

3. Have the students pretend they are writers for Travel/Leisure Magazine. Compose a short description of a recreational site on Narragansett Bay and make this a must-see venture for a tourist!
4. After discussion of the chapter and video, have students write an essay on the responsibilities that go with the privilege of recreational boating on Narragansett Bay (e.g., environmental impact, boat safety, etc.)
5. Have students write a poem entitled, "My Day at the Beach".
6. For extra credit, have a student research the interesting life of Nathanael Greene Herreshoff.

Group Participants: _____

Date _____ Grade _____

Match the following types of seacraft to the appropriate definition.

<u>Type of Seacraft</u>	<u>Definition</u>
1. Ferry	A. A pursuit ship, any various relatively small ship for pleasure cruises, racing, etc.
2. Steamer	B. A transportation system in which passengers and goods are carried across a river or other narrow body of water.
3. Sloop	C. Any light boat, narrow in the beam, propelled by paddles. The name was originally given to boats used in primitive societies. Formed from the trunk of a tree and cut or burned into shape. Used by North American Indians.
4. Canoe	D. A small, one masted vessel originally rigged fore and aft with a jib, mainsail, and often topsails and staysails.
5. Yacht	E. Something operated by steam-power specifically, a steamship.
6. Tall Ship	F. A large, long rowboat, pointed at both ends to increase maneuverability, used by whalers, coast guards, etc. or as a ship's lifeboat.
7. Dinghy	G. A small boat with a flat-bottom and its undecked, sometimes having a single masted racing boat.
8. Whaleboat	H. A long narrow rowboat especially one with a centerboard, outrigger, and small sail.
9. Skiff	I. A boat having a sail or sails by means of which it is propelled.
10. Sailboat	J. A square rigged vessel rigged with square sails extended by yards suspended in the middle.

TITLE: "Saltwater Cornucopia"

TIME: One class period

RATIONALE

Narragansett Bay has had a long history of providing food for both people and animals. It also has provided a livelihood for fishermen for three centuries. The purpose of this lesson is to help students appreciate the importance of and the role which the Bay has played in both the finfish and the shellfish industries.

STUDENT OBJECTIVES

Students will be able to:

1. Identify the early importance of the Bay as a fishery.
2. Identify the efforts which were required to make oystering the successful industry which it was.
3. Identify the commercial importance of the "foodfish" and "fertilizer fish" which inhabit the Bay.

SKILLS ADDRESSED

reading writing listening speaking critical thinking

KEY TERMS/VOCABULARY

Spat oyster beds oyster drills

MATERIALS

1. Book, pp. 73-77
2. Videotape program
3. Handout prepared from Master #7
4. Transparency prepared from Master #7

ACTIVITIES

Elementary

1. Give students a copy of the handout from Master #7. Students will be asked to describe which fish they have eaten and then try to relate the most favored items to the price of those items.

Junior High School

1. Students will complete the handout prepared from Master #7.

2. Students will be asked to list the items they have seen for sale in seafood stores. They will then decide how many of those items were taken from the Bay.

Senior High School

Same as above for Junior High School.

EVALUATIOV

handouts, student discussions, and quizzes

EXTENDING ACTIVITIES

1. Students can interview fishermen, shellfishermen and state officials, and prepare reports on the outlook of the fishing industry.

Students will arrange the following list of fish and shellfish in their order of importance as a Bay fishery. If particular items were more important in the past than any items are at present, then they should be listed first.

SCUP BASS OYSTERS SALMON LOBSTER CLAMS MENHADEN QUAHAUGS

List of Fish

Years of Importance

1.

2.

3.

4.

5.

6.

7.

8.

TITLE: "The Navy in Residence"

TIME: One class period

RATIONALE

The Navy arrived in Newport, Rhode Island during the Civil War. Narragansett Bay was a natural base for naval units. Naval expansion played a vital role in Rhode Island in the many decades following that war. The purpose of this lesson is to learn of the importance of Narragansett Bay in the development of America's coastal defense.

STUDENT OBJECTIVES

Students will be able to:

1. Identify at least two (depending on grade level) Naval facilities in the Newport/Narragansett Bay area.
2. Name the various types of/approaches to naval warfare tested in Rhode Island waters.
3. State the eras and roles that Narragansett Bay played in our naval defenses.

SKILLS ADDRESSED

reading writing speaking listening mapping drawing

KEY TERMS/VOCABULARY

destroyer submarine blockade convoy
neutrality U-boat maneuvers aircraft carrier

MATERIALS

1. Book, pages 78-81
2. Videotape program
3. Rhode Island Highway Map
4. Encyclopedia
5. Copies of the chapter for Junior and Senior High level students

ACTIVITIES

Elementary

1. Students will locate the following on the Rhode Island Highway Map: Newport, Fort Adams, Coaster's Harbor Island, Gould Island, Quonset Point, and Davisville.
2. Students will draw a sketch of a sailor, torpedo, and submarine.

Junior High School

1. Students will discuss the role the Bay played in the decision to temporarily move the Naval Academy from Annapolis, MD to Newport in 1863.
2. Students will take notes and discuss the Bay's role in the history of the torpedo and submarine, including how the submarine changed naval warfare. A follow-up written report (minimum three paragraphs) would be expected.

Senior High School

1. Students will outline the chronology of naval history in Narragansett Bay, from the 1800's to the present, either orally or in written format.
2. Students will state at least two purposes of the War College as planned by Lt. Stephen Luce.

EVALUATION

1. Class discussion and participation
2. Student notebooks and other written assignments
3. Teacher-made test

EXTENDING ACTIVITIES

1. Students will write a composition describing what effect the Navy re-organization of 1941 had on the shores along the Bay.
2. Students will do a report on the effect of the Navy pull-outs, within the past 20 years, on Rhode Island's economy.
3. Students will name two industries around the Bay and the role they played during the World War I effort.
4. Students will research and write an essay on the advantages (or disadvantages) of a naval career today.
5. Show the movie "Das Boot" - chronicles a German U-boat on a mission during World War II, based on an autobiographical novel by Lather-Gunther Buchheim.

TITLE: "Rum-Runners' Rendezvous"

TIME: One class period

RATIONALE

Rhode Island was one of two states to reject the 18th Amendment to the Constitution. Enforcement of Prohibition was often half-hearted, and given Rhode Island's geography, extremely difficult. Narragansett Bay's miles of coastline and numerous coves and inlets became a rumrunner's paradise where vessels of every description ferried contraband from larger ships anchored outside the territorial limit to waiting bootleggers on shore, while the Coast Guard struggled to stem the illegal traffic. Smugglers, from the Colonial Period evading the Navigation Acts to the rumrunners violating the Volsted Act to the drug traffickers of today, have long plied Narragansett Bay. In this lesson students will encounter a fascinating and largely ignored chapter in Rhode Island history. More importantly, they will learn how the geography of Narragansett Bay often has encouraged illegal activity.

STUDENT OBJECTIVES

Students will be able to:

1. Define and explain the 18th Amendment to the U.S. Constitution.
2. List reasons why the geography of Rhode Island and Narragansett Bay encouraged rum running.
3. Summarize the story of the Black Duck.

SKILLS ADDRESSED

reading	writing	listening	speaking	mapping
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KEY TERMS/VOCABULARY

prohibition	speakeasy	bathtub gin	inlet
organized crime syndicate	bootlegger	home brew	estuary
contraband	smuggling	rumrunning	stern
territorial limit	hijacking	pilot house	rum row

MATERIALS

1. Book, pp. 82-85
2. Handout prepared from master #8

ACTIVITIES

Elementary

1. Define and explain Prohibition and the 18th Amendment. Have students read the handout describing the Black Duck incident and answer the questions provided. Discuss their answers and the significance of the event.

2. Divide the class into groups of 3-4 students. Have the students list the following using the Rhode Island Highway Map: a) three coves, eight harbors, and one inlet found in Narragansett Bay; b) three rivers that flow into Narragansett Bay; c) five salt ponds found along the Rhode Island coastline; d) the three entrances to Narragansett Bay and their locations and e) five adjectives to describe the coastline of Rhode Island and Narragansett Bay. Conclude the activity with a discussion of how Rhode Island's coastline has encouraged smuggling, both past and present.

Junior High School

1. Define and explain Prohibition and the 18th Amendment. Have students read the Black Duck handout and answer the questions provided. Discuss their answers and the significance of the event. For homework, have them write an editorial expressing their opinions on the Coast Guard's actions and Charles Travers's accusations.
2. Have students complete the map reading exercise outlined in Elementary Activity #2. In addition, have students use outline map #3 to label the bodies of water they have listed. As in the Elementary Activity, discuss how Rhode Island's coastline has encouraged smuggling activities.

Senior High School

1. Review the nature of the 18th Amendment with the class. Have students read pp. 82-85 in book and discuss the main ideas presented in the chapter, For homework, have students write a short story about rumrunning in Rhode Island.
2. Have students interview a neighbor or relative who lived in Rhode Island during Prohibition. In class, brainstorm and organize interview questions. For homework, have students conduct the interviews and prepare a summary or transcript of their findings. If time permits, have students present their interviews to the class.

EVALUATION

1. Student products
2. Teacher-made test

EXTENDING ACTIVITIES

1. Have students prepare and conduct a mock trial in the Black Duck case. The trial of Charles Travers for violating the 18th Amendment or a military hearing into the conduct of the Coast Guard are two options.

2. Have students write and perform an original play based on the Black Duck incident or another smuggling incident, either past or present, real or fictional.
3. Have students compile a book about Prohibition in Rhode Island based on oral history interviews.
4. Invite a Coast Guard spokesperson to speak about the Guard's role in enforcing smuggling laws today.
5. Have students write an essay comparing smuggling on Narragansett Bay today with that of past eras.

NAME _____

DATE _____

Directions: Read the account of the Black Duck incident below. Then answer the questions which follow the account.

On Sunday, December 29, 1929, just before 3:00 a.m., the Coast Guard killed three rum runners and wounded a fourth near Fort Adams at the entrance to Newport Harbor. The men were aboard the Black Duck, a well-known rum running vessel. The vessel almost collided with Coast Guard Cutter 289 in dense fog and failed to stop when ordered to do so by the Coast Guard.

The three men killed were Jacob Weisman of Providence, and John Goulart and Hadley Brandt, both of Dorchester, Massachusetts. The wounded man, who was shot through the hand, was Charles Travers of New Bedford. Of the four, only Weisman had a previous record. He had been twice arrested and once convicted of violating the Prohibition amendment.

According to the Coast Guard, the Black Duck swerved and sped away just as Boatswain Alexander C. Cornell ordered his machine gunner to fire across its stern. The bullets hit the pilot house instead, killing the three rum runners instantly.

The Black Duck returned, piloted by the wounded man, and pulled up beside the cutter. Travers was taken captive, and the vessel was towed to Fort Adams where the dead were transferred to a funeral home and Travers to Newport Hospital. The vessel itself, loaded with several hundred cases of liquor, was taken to Coast Guard headquarters in New London, Connecticut.

In an interview Sunday night, Charles Travers accused the Coast Guard of firing without warning. He also called Commander Cornell a heartless "brute" and claimed no one on board the cutter, except the engineer, would help the dying men despite his pleas for assistance.

Sources :

Coast Guards Kill Three Rum Runners and Wound Another" Newport Daily News,
30 December 1929, pp. 1&2
"Injured Rum Runner Declares Guards Fired Without Warning" Providence Journal
31 December 1929, pp. 1&2

Questions:

1. Who was killed in this incident? Who was wounded? Who did the shooting?
2. Where did this happen? Where were the dead and injured taken?
3. When did this happen? What time of day was it?
4. What were these men doing when they were killed?
5. Why were these men killed? In your opinion, why didn't they stop when ordered to do so by the Coast Guard?
6. Which of the men had a criminal record? What crimes had he committed before?
7. Of what did Charles Travers accuse the Coast Guard?
8. How did the Coast Guard explain the killings? Were the killings deliberate?

TITLE: "The Depression and World War II"

TIME: Two class periods

RATIONALE

The purpose of this lesson is to familiarize students with the changing economy around Narragansett Bay. It is important for students to understand the uses of the Bay during the Depression, World War II, and the post-World War II period. Because the Navy was the biggest economic force and the state's largest civilian employer for more than 25 years after the Second World War, students need to understand man's working relationship with and around the Bay between the 1930's and the 1970's.

STUDENT OBJECTIVES

Students will be able to:

1. Locate and label wartime installations and work sites along Narragansett Bay, and give a brief description of activities at each site.
2. List the activities and identify the logo of the Seabees (a new breed of sailors trained at Davisville, Rhode Island during World War II).
3. Discuss the responsibilities of the Department of Agriculture and Conservation agents (today called Department of Environmental Management) on the Bay.

SKILLS ADDRESSED

reading writing speaking listening mapping
critical thinking

KEY TERMS/VOCABULARY

dinghy quahaug black quahaug catboat fiberglass

MATERIALS

1. Book, pages 86-93
2. Videotape program
3. Handout prepared from Master #9
4. Transparency prepared from Master #9
5. Handout prepared from Master #2

ACTIVITIES

1. Divide the class into groups of four. Using the handout from Master #2, have them locate two of the following:
a) Naval complex on Aquidneck Island; b) Quonset Point at Davisville; c) Quonset Point Naval Air Station; d) Quonset Point Construction Battalion Center; e) Gould Island; f) Rheem (later called Walsh-Kaiser) Shipyard, Fields Point, Providence; g) Herreshoff Yard, Bristol; and h) Fort Adams, Newport. Have students tell other students what kind of work or activities took place at the location during wartime and post-wartime.
2. Teacher explains what fiberglass is and why boat makers began making recreational boats out of fiberglass instead of wood after World War II. Have students make up and role play a short skit about the "Preppy Pappies" and the "Wet Hens" sailboat races.

Junior High School

1. Present the list of wartime installations and work sites given under Elementary Activity #1. Have students locate all the sites and write a brief description of wartime activities at each site.
2. Using the timeline handout from Master #9, beginning with the year 1900, have students read the book and list the materials most commonly used in recreational boat construction. Put in the dates of the years the United States won the America's Cup.

Senior High School

1. Same as Junior High Activity #1. In addition, have students research pictures of at least one location. Photocopy the picture or bring the photo to share in class. Lead a class discussion about the architectural features of the site visible in the picture.
2. Same as Junior High Activity #2. Students may also use their local or school library for additional reference books on construction materials used for recreational boats built between 1950 and 1980, If they discover any unusual facts about sailing, they can include this in their timelines.

EVALUATION

1. Teacher-made test
2. Student contribution to group work

EXTENDING ACTIVITIES

1. Discuss the structural changes that occurred in the old summer colonies along the shores of the upper Bay during the 1930's.
2. Write a short paragraph about the "black quahaug" during World War II.
3. Discuss the "Quahaug Wars" on Narragansett Bay which ended in the middle 1950's.

1900

1910

1920

1930

1940

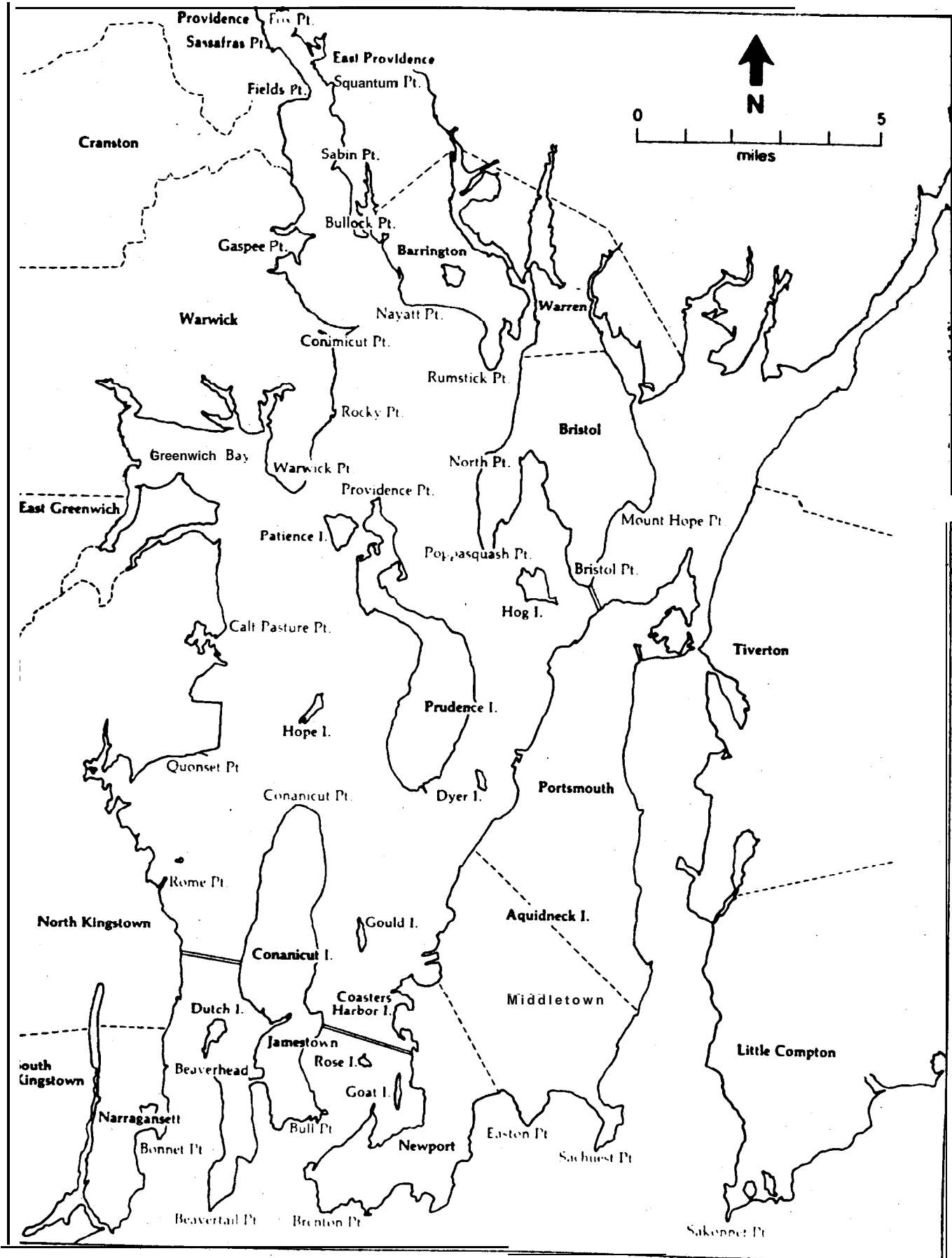
1950

1960

1970

1980

Figure 1. Narragansett Bay



TITLE: "The Scenic Bay"

TIME: One class period

RATIONALE

The purpose of this lesson is to help the students have a clearer sense of location regarding the land masses and coves along the shoreline and the islands in Narragansett Bay. This lesson helps to make the students more aware of the people who enjoy recreational activities on Narragansett Bay and why they go there.

STUDENT OBJECTIVES

Students will be able to:

1. List reasons why people have recreational boats on Narragansett Bay.
2. Identify favorite places that Bay travelers by boat like to visit.
3. State the names of the major bridges in Rhode Island,

SKILLS ADDRESSED

reading writing mapping speaking listening

KEY TERMS/VOCABULARY

gunkholing buoy rudder keel

MATERIALS

1. Book, pages 94-99
2. Videotape program
3. Handout prepared from Master #2
4. Transparency prepared from Master #2
5. Photographs of bridges, discarded newspapers, magazines

ACTIVITIES

Elementary

1. Have students look at pictures of the bridges in Rhode Island. Have them each draw a picture of the Newport Bridge. As homework, give them a short research task about such facts as the construction history, the Bridge's size, and the cost of the fare to cross the Bridge.
2. Have students look at the Rhode Island Highway Map. Have them locate the following: Prudence Island; Potter Cove, Coggeshall Cove, Sheep Pen Cove, Pine Hill Cove; Brenton Cove, Newport; Dutch Island Harbor,

Conanicut; Hope Island . Teacher could use the overhead projector for group participation or the resource map and place a small circle or symbol at the correct site.

Junior High School

1. Have students locate the following bridges on the handout map from Master #2 by drawing a star at the site with a colored pencil or marker: Mt. Hope Bridge, Washington Bridge, Red Bridge, Newport Bridge, and Sakonnet River Bridge. As a homework assignment, have students put the dates of construction and the names of the bridges on the resource timeline sheet or on a separate piece of paper, indicating whether they have ever crossed the bridge. (This activity should be done after some instructional time by the teacher about the bridges and some readings in the book).
2. Have students choose one island in Narragansett Bay and write a research paper on how it has changed since 1900, what is unique about it, and who or what are the major inhabitants of the island today.

Senior High School

1. Same as #1 for Junior High School. In addition, make a chart on the chalkboard or use the overhead projector to list the bridges on the left side of the screen. This activity is to create a classroom census or survey of students who have traveled across the bridges. The teacher could lead a discussion about why some bridges are used more than others. Have students pretend to be visitors from the 17th century, and write a short essay describing what they see from specific locations along the Bay.
2. Have students choose one island and one cove or yacht club in Narragansett Bay and write a research paper about how it has changed since 1900, what is unique about it, and who or what are the major inhabitants of it today. This could be done by a first person, primary source interview with a member of many years from the yacht club or a long time resident of one of the islands.

EVALUATION

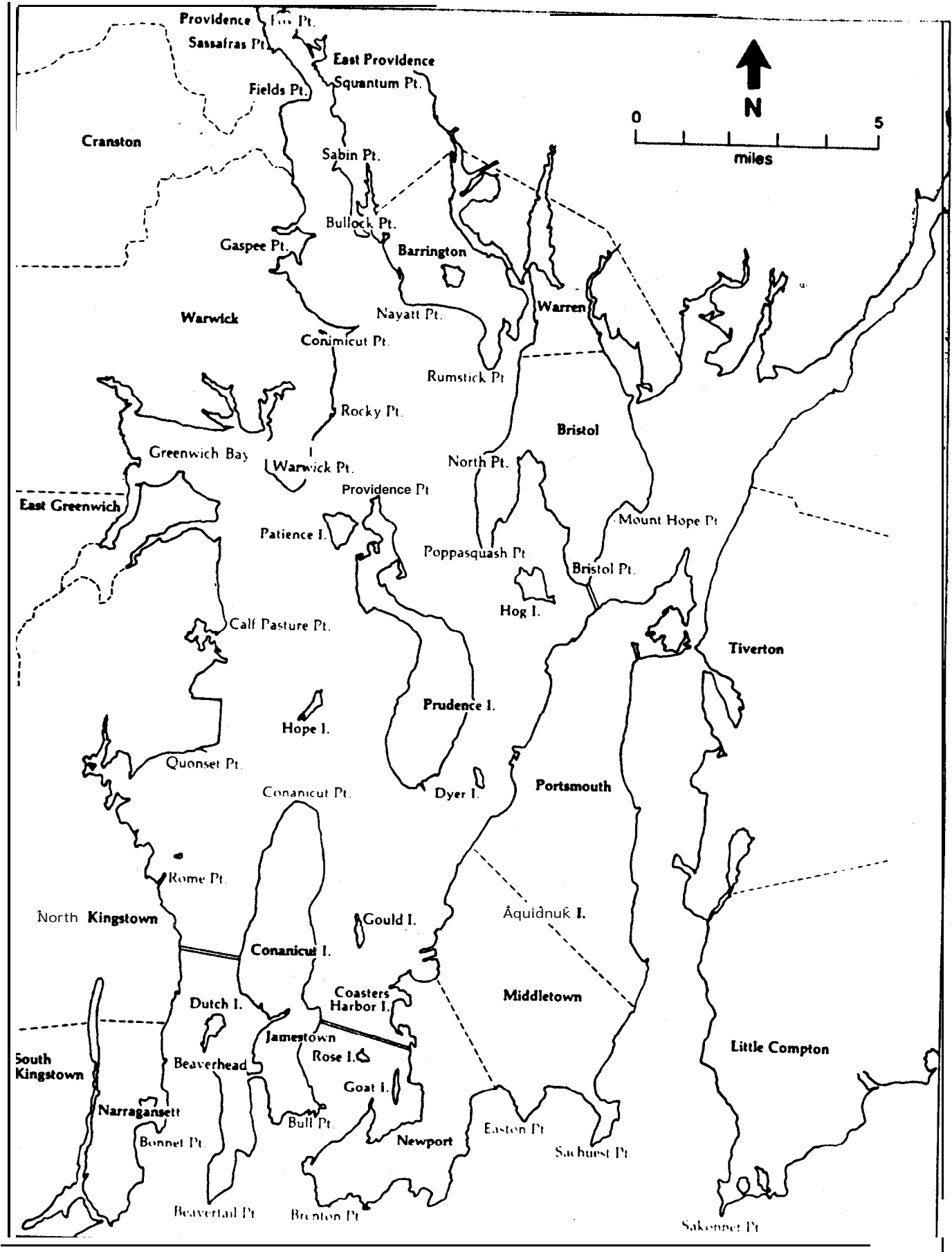
1. Teacher-made test
2. Written essays and research papers

EXTENDING ACTIVITIES

1. Take field trips to sites of interest covered in the lesson.

2. **Do a photo layout or visual story of the bridges and/or coves or islands.**
3. **Have students tape record interviews with recreational boat, owners.**
4. **Have a local realtor talk about prices and the lack of property available along the bay.**

Figure 1. Narragansett Bay



TITLE: "Dirty Water"

TIME: Two class periods

RATIONALE

The purpose of this lesson is to help students recognize the importance of clean water in the Bay and its effect on all Rhode Islanders. The breakdown of the Providence sewage treatment plant or large amounts of rainwater can have a devastating impact on plant, fish, and shellfish in and around Narragansett Bay. Because many people rely on the bay for a living and enjoy fish and shellfish, the economic and physical health of the citizens of Rhode Island should be a primary concern to all of us.

STUDENT OBJECTIVES

Students will be able to:

1. Recognize leading historical names in the development of sewage treatment facilities in Rhode Island.
2. Discuss the dilemma of pollutants in Narragansett Bay.
3. List causes and solutions to water pollution from various Rhode Island communities and their relationship to Narragansett Bay.

SKILLS ADDRESSED

reading writing speaking listening critical thinking

KEY TERMS/VOCABULARY

pollution	contaminant	chlorination	biodegradable
purify	sludge	efficient	hydrocarbon
pristine	runoff	pesticide	

MATERIALS

1. Book, pages 100-105
2. Videotape program
3. Guest speakers

ACTIVITIES

Elementary

1. Teacher tells students about key persons in Rhode Island history associated with sewage treatment problems. Write the names of Samuel Merrill Gray, Charles H. Swan and Harvey Flint on the chalkboard. Have students take notes, including dates. They should be able to do a matching quiz on these men.

2. Teacher arranges to have a speaker from the DEM or a sewage treatment plant. Have the students identify three ways they can help improve the quality of water in Rhode Island.

Junior High School

1. Teacher arranges to have a speaker from the DEM or the treatment facility give a thorough explanation of how the treatment plants work. The speaker should also cover what chemicals (and their uses) are the most harmful, the most commonly found in Rhode Island waters, and what the students can do to help improve the quality of water in Rhode Island. After the speaker leaves, students should be able to identify the major chemicals and problems causing the Bay's pollution, and list five ways they can help to improve the water's quality. Assign the students to investigate the sewage treatment plant in their community.
2. Have students read pages 101-105 in the book. Teacher then lists the key names of persons in Rhode Island history associated with sewage treatment plants on the chalkboard. Students should write a brief paragraph covering the activities of the people listed in Elementary Activity #1.

Senior High School

1. Same as Junior High Activity #1, having students list ten ways that they can improve the water, and research the sources that the DEM believes to be major contributors in polluting the Bay. In addition, teacher gives an overview instructional lesson making reference to the most current state of affairs with the Bay water (Providence Journal, June, 1988, magazine sections).
2. Same as Junior High Activity #2. In addition, have students identify the sewer commissions which exist today throughout Rhode Island.

EVALUATION

1. Teacher-made test
2. Student participation in class discussion

EXTENDING ACTIVITIES

1. Field trip for older students to gather water samples and test them at school or at the local sewer treatment facility.
2. Have students write mock letters to their local legislative representatives.

TITLE: "Resource Management"

TIME: Two class periods

RATIONALE

Narragansett Bay together with its adjacent land is a very valuable but scarce natural resource. Its presence and how it is used affects all of us. There are many people and groups responsible for planning and managing this resource. They must insure that it is put to its "best" uses. As with any scarce resource, there are many different and appropriate competing uses. Deciding what to do is a difficult economic question. The purpose of this lesson is to help students understand that there are many people interested in deciding how the Bay and its adjacent land will be used, who is responsible for making or approving of those decisions, and to provide the students with an opportunity to simulate participating in those decisions.

STUDENT OBJECTIVES

Students will be able to:

1. List at least ten (10) alternative uses of Narragansett Bay and its adjacent land and then list at least three (3) criteria on which to judge the desirability of the uses.
2. Name at least eight (8) government agencies and citizen interest groups concerned with planning and managing the uses of the Bay.
3. Make decisions on using land adjacent to Narragansett Bay and identify the opportunity cost of each choice.

SKILLS ADDRESSED

reading writing listening speaking critical thinking

KEY TERMS/VOCABULARY

resource management citizen interest group ecology
opportunity cost regulations pollution
zoning laws

MATERIALS

1. Book, pages 106-113
2. Videotape program
3. Handout prepared from Master #10
4. Overhead transparency prepared from Master #10

ACTIVITIES

Elementary

1. Have the class view the videotape program. Elicit at least 12 uses of the Bay (alternatives on handout can be used as a guide) and list on the board. Now list the benefits that result from the uses, as suggested by the class. Decide which are the most important. Explain, with examples, that any decision to use this scarce resource in a particular way must result in the opportunity cost of giving up the next best alternative.
2. Read the portion of this chapter of the book that identifies the various federal, state, and local agencies as well as citizen interest groups concerned with managing the Bay. Discuss specific responsibilities of each. Have each student select one group and write a short essay on who that group is and what they do to manage or protect Narragansett Bay.

Junior High School

1. Same as Elementary Activity #2, but with a more extensive essay.
2. Using the handout and overhead transparency from Master #10, have the class complete the decision-grid. Discuss the results and identify the opportunity cost of the decision.

High School

1. Using the decision-grid from Master #10, have the class list their own alternatives and criteria. Complete the modified grid, discuss the results, and identify the opportunity cost.
2. Divide the class into small groups of four or five each. Have each group select a regulatory agency or citizen interest group and prepare a position statement on the alternative use selected in Activity #1 above. Have the positions presented.

EVALUATION

student contributions

EXTENDING ACTIVITIES

1. Invite representatives from regulatory agencies and/or citizen interest groups to discuss or debate their position in class.
2. Have students write and present editorials defending or opposing selected alternative uses of the Bay.

There is a ten (10) acre parcel of land available for use on the bay. It has 750 feet of shoreline frontage. The land has good connections by both highway and railroad to inland areas. The current private owner must be compensated (paid) for the use of this land.

As the "Bayfront Manager," you have the power to decide on a single-purpose (no combinations) use of this site. Use the grid of alternative uses and criteria given below to make your decision.

In the criteria columns, put a plus sign (+) if the alternative meets the criterion, put a minus sign (-) if the alternative violates the criterion, or put a zero (0) if it is neutral or you don't know.

Based on your decision-making grid information, choose the two (2) best uses. What is the opportunity cost of your first (top) choice?

CRITERIA

ALTERNATIVES	Maintains rights of private ownership	Produces jobs, income, and economic growth	Provides public access to the bay	Protects the ecology and maintains open space
Boatbuilding company with yard; ramps, and piers				
Public park with paths and parking facilities				
Single-family homes on large lots				
Public marina for pleasure boats				
Shipping port with berthing, loading, and warehousing facilities				
Resort hotel and convention center				
Townhouses, apartments, and condominiums				
State university marine research campus				
Wildlife preserve				
Restaurants and stores				
Industrial park of small businesses and offices				
Fishing port with seafood processing plant				
Military port facilities for Navy or Coast Guard				
Oil refinery and storage				

GLOSSARY OF KEY TERMS/VOCABULARY

- aircraft carrier -- a flat-topped naval vessel which carries and serves as a base for aircraft, usually small airplanes
- ally -- a country united with another for some special purpose; a helper or supporter
- anemone -- any of various sea polyps distinguished by the cylindrical form of the body which is capable of dilation and contraction. The mouth is furnished with numerous tentacles, by means of which the animal secures its food and which, when expanded, give the animal somewhat the appearance of a flower
- bathtub gin -- homemade liquor
- biodegradable -- capable of being decomposed by natural biological processes
- bivalve -- any mollusk having a shell consisting of two parts or valves hinged together by an elastic ligament or a shell consisting of two parts which open and shut
- black quahaug -- a variety of quahaug, also known as "mahogany", or "ocean" quahaug
- blockade -- a shutting off of a place or region by hostile troops or ships in order to prevent passage; any blocking action designed to isolate an enemy and cut off communication and commerce
- bootlegger -- a person who sells, transports, or makes unlawfully; especially one who violated Prohibition in the United States from 1920 to 1933
- boycott -- refuse to buy or use
- buoy -- a floating object anchored in water to warn of rocks, shoals, or to mark a channel
- brackish -- somewhat salty
- catboat -- a light draft, broad beamed sailboat with a center-board and a single mast far forward carrying a large sail extended by a boom
- chop -- the low, close together movement of waves
- citizen interest group -- a group of individuals banded together to promote a particular idea or cause

clambake -- a feast or picnic at the seashore at which clams are steamed or baked with lobster, chicken, and corn on heated stones under a coverage of seaweed

Cliff Walk -- a scenic path in Newport overlooking Rhode Island Sound

chlorination -- to combine or treat with chlorine

contaminate -- to make impure by contact

Continental Shelf -- the submerged shelf of land that slopes gradually from the exposed edge of a continent for a variable distance to the point where the steep descent to the ocean bottom begins

contraband -- smuggled goods

convoy -- a protecting force accompanying ships or property on their way from place to place, by either sea or land; the ship, fleet, troops, etc. conducted and protected

cove -- a small sheltered inlet or bay

crustacean -- one of a class of invertebrates, characterized by a hard outer shell and jointed appendages and bodies that usually live in the water and breathe through gills. The higher forms of this class include lobsters, shrimp, etc.; the lower animals are of varied forms such as barnacles.

destroyer -- a small, fast, powerful, heavily armed warship with high maneuverability

dinghy -- a small boat carried on a warship; a rowboat used as a tender to a yacht; a small undecked single masted racing boat

duty -- a tax, especially a tax on goods brought into or taken out of a country

East Passage -- the middle entrance of three and main ship channel into Narragansett Bay, lying between the towns of Jamestown to the west and Newport to the east

ecology -- a branch of science concerned with the interrelationship of organisms and their environments

efficient -- a way of doing things to avoid loss or waste

embargo -- to stop trade with another country

estuary -- a name for an area where freshwater mixes with ocean saltwater

fetch -- the open water available to create a wave

fiberglass -- a lightweight, building material consisting of glass in fibrous form used in making a variety of products such as boats

food chain -- in ecology, a sequence of organisms in a community in which each member feeds on the member below it

fortifications -- walls or forts built to make a place strong

gale -- a strong wind

Garden of Eden -- the garden, where according to the account in Genesis, Adam and Eve first lived; a beautiful place

glacier -- a large body of ice spreading outward on a land surface

grounded -- to hit bottom or the shore of a body of water

gunkholing -- large boats rafting their craft together in Potter's Cove for greater sociability

hijacking -- to steal by stopping a vehicle

home brew -- an alcoholic drink such as beer which was made at home

hurricane -- tropical storm with winds greater than 74 m.p.h., usually accompanied by rain, thunder, and lightning

hydrocarbon -- any of a large group of organic compounds, composed solely of the chemical elements hydrogen and carbon

import -- to bring in from a foreign country for sale or use; an item brought in

indentured servants -- people who bind themselves to work for another for a specified time in return for payment of their travel expenses and maintenance

inlet -- a bay in the shore of a sea, lake or river

keel -- the chief timber or steel piece along the entire length of the bottom of a ship or boat

maneuvers -- large scale, planned and controlled tactical or strategic movements and exercises of troops, warships, etc. under conditions resembling those of combat

men-of-war -- warships

mollusk -- one of the large phylum of invertebrates comprising the oysters, clams, mussels, snails, etc. characterized by a soft, unsegmented body enclosed, in most instances, partly or wholly, in a calcareous shell of one or more pieces, and having gills, a foot, and a mantle

monopoly -- exclusive ownership

moraines -- an accumulation of earth and stones carried and finally deposited by a glacier

neutrality -- the status, policy, or attitude of a nation not participating directly or indirectly in a war between other nations

opportunity cost -- the highest valued alternative that must be foregone because another option is chosen

organized crime syndicate -- group of persons working together to carry out major crimes

oyster beds -- a place where oysters grow or are cultivated

oyster drills -- a marine snail destructive to oysters by boring through their shells and feeding on the soft parts

periwinkle -- in the family of small saltwater snails having a thick brown or yellowish cone-shaped shell with dark spiral bands

pesticide -- chemical or other substance used to destroy harmful plants or animals

pilot house -- an enclosed place on the deck of a ship containing the steering wheel

piracy -- robbery on the high seas

Pleistocene Epoch -- the earlier epoch of the geological period of time corresponding to a system of rocks

pollution -- to contaminate or make impure or foul, as with industrial waste

pristine -- pure, uncorrupted, unspoiled

privateer -- an armed ship owned by private persons but having government permission to attack and capture enemy vessels

prohibition -- law against making or selling alcoholic liquors;
national Prohibition existed in the United States
between 1920 and 1933

purify -- to make or become pure or clean

quahaug -- an edible clam on the east coast of North America
having a very hard, solid shell

recreational -- refreshment in body and mind, as after work, by
some form of play, amusement, or relaxation as
games, sports, hobbies

regulations -- a rule or order having the force of law issued by
an executive authority of a government

reservation -- public land set aside for some special use as in
Indian

resort -- a place where people go for rest and relaxation for
vacation

resource management -- the judicious use of scarce factors of
production such as a natural resource

revenue ship -- a ship whose crew collects duties on goods
brought in from foreign countries

rudder -- a broad, flat, movable piece of wood or metal hinged
vertically at the stern of a boat or ship which is used
for steering

rum row -- a group of ships used for smuggling illegal liquor

rumrunning -- bringing illegal liquor ashore or across the
border

runoff -- something that runs off; rain or snow not absorbed by
the soil, which forms surface streams

sachem -- the chief among some North American Indian tribes

sailing packet -- a passenger boat that carries mail or cargo

Sakonnet River -- the eastern-most entrance of three into Narra-
gansett Bay, lying between the towns of Newport
to the west and Little Compton the the east

salinity -- amount of salt in a given volume of water

salt marshes -- flat land subject to overflow by salt water

schooner -- a front (fore) and rear (aft) rigged sailing ship

sect - a religious denomination, especially a small group that has broken away from an established church

sludge -- any mud-like or slushy mass or mixture, as the deposit formed in a boiler or the sediment produced in the treatment of sewage

smuggling -- to bring into or take out of a country secretly and illegally, especially without paying the legal duties

spat -- a young oyster or other bivalve

spawn -- to produce or deposit eggs

speakeasy -- a place where alcoholic drinks are sold illegally

spermaceti candle -- candles produced from the oils of the sperm whale

steamer -- something operated by steam power, i.e., steamboat often used on inland waterways; a type of clam used in clambakes

stern -- the rear end of a ship

submarine -- a kind of warship that can operate under water

territorial limit -- border between coastal waters controlled by a country and the open ocean

turbidity -- the state or quality of a liquid which is muddy or cloudy

U-boat -- a German submarine

wampum -- small beads made of shells and used by North American Indians as money and ornaments

West Passage -- the western-most entrance of three into Narragansett Bay, lying between the towns of Narragansett to the west and Jamestown to the east

yacht -- any various relatively small ships for pleasure cruises, racing, etc.

zoning laws -- law or ordinances which partition land into sections reserved for different purposes such as open space, residential, commercial, manufacturing, etc.

ADDITIONAL REFERENCES

LESSON 1 - "Topography and Geology"

The New England River Basins Commission. Map Atlas: Water and Land Resources of Southeastern New England; Narragansett Bay and Block Island, 55 Court St., Boston, MA 02108 (617) 223-6244. This is an invaluable atlas on Narragansett Bay, containing maps on recreation, inland wetlands, flood plans, cultural areas, navigation charts, etc.

LESSON 2 - "Winds and Tides"

Olsen, Stephen; Robadue, Jr., Donald D., and Lee, Virginia. An Interpretive Atlas of Narragansett Bay, Coastal Resources Center, University of Rhode Island, Marine Bulletin 40

Wright, Marion I., and Sullivan, Robert J., The Rhode Island Atlas, Rhode Island Publications Society, Providence, 1982

LESSON 3 - "Fish and Other Creatures"

Greene, Roger and Gail, Rhode Island...naturally, Rhode Island Dept. of Environmental Management, Audubon Society of R.I. and R. I. State Dept. of Education - Environmental Educations units for Grades 4-6, a study of the natural history of the coastal zone in Rhode Island.

"Battle for the Bay", Sunday Providence Journal Magazine Series (Jan.-Dec., 1988) - may be used to stimulate class ideas for protecting or improving our precious natural resource, as well as provide valuable resource information.

Samuelson, Peter, Seashores, Bays, Rivers, and Lakes - Rhode Island's Water World, Title IVc Grant - describes Rhode Island's freshwater and saltwater resources and the kinds of life present in these resources.

Rhode Island Sea Grant Publications Office has various fact sheets done by the marine group and the URI Bay Campus. Write to them at: URI Bay Campus, Narragansett, RI 02882-1179, or call (401) 792-6800.

WJAR tape of June 12, 1988 - Sherm Strickhauser TV interview show-segment on Wes Pratt, a marine biologist from NOAA/Sea Grant URI-includes slides of many photos in this chapter.

LESSON 4 - "Indians and Colonists"

Carpenter, Allan, The New Enchantment of America: Rhode Island, Chicago Children's Press, 1978 Revised. Suitable for upper elementary readers. Provides an overview of the state and its history.

Conley, Patrick, An Album of Rhode Island History 1636-1986, Norfolk Donning Co., 1986. Written for the general reader interested in learning more about the heritage of Rhode Island.

McLaughlin, William W., Rhode Island, A History, W.W. Norton, 1986. In-depth study particularly from the Indians and Colonists era. May be suitable for secondary level students.

Williams, Roger, A Key Into the Language of America, Providence, R.I. Tercentenary Committee 1936. Roger Williams Dictionary of the Narragansett language and realistic pictures of Indian Life.

Wright, Marion I., and Sullivan, Robert J., The Rhode Island Atlas, Rhode Island Publications Society, Providence, 1982. Great source of facts about Rhode Island and appropriate for research using charts and graphs.

LESSON 5 - "Maritime Commerce"

Hofstadter, Richard, America at 1750: A Social Portrait, New York: Knopf; 1971. This book has an excellent descriptive account of the Middle Passage, and Rhode Island's participation in it.

LESSON 6 - "The Revolutionary War"

Crane, Elaine Forman, A Dependent People; Newport, Rhode Island in the Revolutionary Era. New York: Fordham University Press, 1985. A social and economic study of Newport in the 1760's and 1770's, this book focuses on Newport's relationship with the sea.

Dearden, Paul F., The Rhode Island Campaign of 1778; Inauspicious Dawn of Alliance, Providence: Rhode Island Bicentennial Foundation, 1980, 2nd printing, 1987. This is an in-depth analysis of the Rhode Island campaign of 1778 including why the campaign failed and its international implications.

Eno, Paul F. "Rhode Island was steadfast in its independence as nation began". Providence Sunday Journal, 23 March 1986, sec. B, pp. B-1, 6 & 7. This article summarizes Rhode Island's contributions to the War for Independence.

James, Sidney V., Colonial Rhode Island: A History, New York: Charles Scribner's Sons, 1975. The most comprehensive account of colonial Rhode Island history in print, this work contains a thorough explanation of Rhode Island's role in the American Revolution.

Koch, Fritz, "The days of August when R.I. almost upstaged Yorktown", Providence Sunday Journal, 16 July 1978, sec. B, pp. B-1 & 2. This article relates the story of the Battle of Rhode Island and contains a simple but effective map of the Battle.

Lovejoy, David S., Rhode Island Politics, and the American Revolution, 1760-1776. Providence: Brown University Press, 1958, 2nd printing 1969. This study argues that there was a direct relationship between Rhode Island's political system and its resistance to British policies,

Robinson, Natalie, preparer, Rhode Island Legacy, Drama/Discussion Program Study Guide. Revolutionary Fire: The Gaspee Incident. Providence: Rhode Island Committee for the Humanities. This source contains an excellent description of the Gaspee affair, two eyewitness accounts, suggested student activities, and other useful materials.

Simister, Florence Parker, The Fire's Center: Rhode Island in the Revolutionary Era, 1763-1790. Providence: Rhode Island Bicentennial Foundation, 1978. Written as a popular history, this book tells the story of Rhode Island and the American Revolution in simple, straightforward language illustrated with interesting visuals.

Smith, Leonard S., Jr., editor and arranger, The Gaspee Affair: Prelude to a Tea-Party. Chariot, Inc. 1972. This is a portfolio of primary source documents related to the Gaspee affair which also includes an excerpt from Prelude to a Tea-Party, an historical drama by Smith.

Walker, Anthony, So Few the Brave: Rhode Island Continentals, 1775-1783, Newport: Seafield Press, . 1981. This text traces the military activities of Rhode Island's two Continental regiments.

LESSON 7 - "The China Trade"

Olsen, Stephen; Robadue, Jr., Donald D., and Lee, Virginia. An Interpretive Atlas of Narragansett Bay, Coastal Resources Center, University of Rhode Island, Marine Bulletin 40

The Rhode Island Box, Rhode Island Dept. of Education, 1976. A trunk of activities and resources about Rhode Island, including important personalities.

LESSON 9 - "Resorts and Recreation"

Meras, Phyllis, Exploring Rhode Island: A Visitor's Guide, Providence Journal Company, 1984. A visitor's guide to points of interest.

Rhode Island Monthly Magazine, Providence, 1988. A new "What's Happening in Rhode Island?" magazine.

Wright, Marion I., and Sullivan, Robert J., The Rhode Island Atlas, Rhode Island Publications Society, Providence, 1982. Helpful for locating select Narragansett Bay recreational sites.

LESSON 11 - "The Navy in Residence"

Schroder, Walter, Defenses of Narragansett Bay in World War II, Rhode Island Publication Society, 1980. Detailed history of Narragansett Bay during World War II.

LESSON 12 - "Rum-Runners' Rendezvous"

"Coast Guard Kill Three Rum Runners and Wound Another", Newport Daily News, 30 December, 1929, pp. 1 & 2. A long, repetitious article, this is nonetheless interesting both for its description of the event and as a sample of local journalism.

"Grand Jury to Probe Coast Guard Killings", Providence Journal, 31 December 1929, p. 1. This follow-up story describes four investigations being conducted into the killings and Travers's charges that the Coast Guard acted improperly.

"Injured Rum Runner Declares Guards Fired Without Warning", Providence Journal 31 December, 1929, pp. 1 & 2. Based on an interview with Charles Travers, this article quotes his statement charging the Coast Guard with firing without warning and failing to aid the wounded.

Quinney, Valerie, and Wood, Linda, How to Find Out By Asking: A Guide to Oral History in Rhode Island, Supported by the NEH Youth Planning Grant, 1979. This is an excellent guide to the techniques of oral history such as preparing the questions, choosing narrators, conducting and transcribing the interviews. It would be a helpful source for the oral history activity suggested in this lesson.

"Three Rum Runners Slain; Cutter Rakes Boat with Machine Gun Fire in Bay", Providence Journal, 30 December, 1929, pp. 1 & 2. This article is a detailed description of the Black Duck incident and is written more professionally than the Newport Daily News version.

"Travers Will Be Taken to Providence for Arraignment", Newport Daily News, 31 December, 1929, pp. 1 & 7. Like the Providence Journal articles of the same date, this story reports on the arraignment, describes the investigations into the Coast Guard's actions, and quotes Travers's accusations against the Guard.

LESSON 13 - "The Depression and World War II"

Conley, Patrick, An Album of Rhode Island History 1636-1986, Norfolk Donning Co., 1986. Written for the general reader interested in learning more about the heritage of Rhode Island.

Corbett, Scott, Rhode Island, New York: Coward-McCann, Inc., 1969

Henwood James N.J. A Short Haul to the Bay, Brattleboro, VT: The Stephen Green Press, 1969

The Rhode Island Box, Rhode Island Dept. of Education 1976

Simister, Florence Parker, The First Hundred Years, Rhode Island Hospital Trust Co. Bank, Pawtucket, R.I.: Lithographic Company, 1967

Wright, Marion I., and Sullivan, Robert J., The Rhode Island Atlas, Rhode Island Publications Society, Providence, 1982.

LESSON 14 - "The Scenic Bay"

Conley, Patrick, An Album of Rhode Island History 1636-1986, Norfolk Donning Co., 1986. Written for the general reader interested in learning more about the heritage of Rhode Island.

Corbett, Scott, Rhode Island, New York: Coward-McCann, Inc., 1969

Henwood, James N.J., A Short Haul to the Bay, Brattleboro, VT: The Stephen Green Press, 1969

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Wright, Marion I., and Sullivan, Robert J., The Rhode Island Atlas, Rhode Island Publications Society, Providence, 1982.

FIELD TRIPS/GUEST SPEAKERS

GENERAL

Woolman, David C., Field Trips for Rhode Island Elementary, Secondary, and Higher Education Students, 2nd Revised Ed., Providence: Curriculum Resources Center, Rhode Island College, 1985, Though somewhat outdated, this guide provides useful information on almost 200 New England field trip sites, many of which are in Rhode Island and some of which relate to Narragansett Bay.

LESSON 3 - "Fish and Other Creatures"

FIELD TRIPS

1. Norman Bird Sanctuary, Middletown, R.I.
2. Brenton Point State Park, Newport, R.I.
3. Ninigret Park and Frosty Drew Nature Center, Charlestown, R.I.
4. Kimball Wildlife Refuge on Watchaug Pond, Charlestown

GUEST SPEAKERS

1. Audubon Society - Education Director Carolyn Cyr - Talks can be arranged to discuss "Birds of R.I." and "Birds Native to Narragansett Bay" - 231-6444
2. Save the Bay, Inc. - Trudy Cox - 272-3540
3. Wes Pratt - NOAA

LESSON 4 - "Indians and Colonists"

FIELD TRIPS

1. Royal Indian Burial Ground, Charlestown
2. Roger Williams Memorial Park and Spring, Providence
3. Museum of Rhode Island History, Providence
4. Haffenreffer Museum of Anthropology, Bristol
5. Museum of Primitive Culture, Peace Dale
6. Tomaguag Indian Memorial, Exeter
7. Sydney L. Wright Museum, Jamestown Philomenian Library, Jamestown

GUEST SPEAKERS

1. Albert Klyberg, Rhode Island Historical Society, Providence
2. Indian Affairs in Providence, 277-3698 for a guest speaker

LESSON 6 - "The Revolutionary War"

FIELD TRIPS

1. John Brown House, 52 Power Street, Providence, 331-8575
2. Stephen Hopkins House, 10 Hopkins Street, Providence, 831-7440, 885-4222
3. Hunter House, 54 Washington Street, Newport, 847-1000
4. Wanton-Lyman-Hazard House, 17 Broadway, Newport, 846-0813
5. Old Colony House, Washington Square, Newport, 846-2980, 277-2669
6. Continental Sloop Providence, Ft. Adams State Park, Newport, 846-1776
7. Prescott Farm, 2009 West Main Road, Middletown, 847-6230
8. Fort Barton, Tiverton

LESSON 9 - "Resorts and Recreation"

FIELD TRIPS

1. Museum of Yachting, Fort Adams State Park, Newport
2. Marble House, summer residence of the Vanderbilt family with one room containing sailing memorabilia of a three time America's Cup defender.
3. Old Colony and Newport Railway, Long Wharf. This little railway goes to Portsmouth's Green Animals on a picturesque route along Narragansett Bay.

VIDEO

1. WJAR tape of the Strickhauser Show, 6/12/88. Segment on Power Squadron.

GUEST SPEAKER

1. Halsey Herreshoff, President of Herreshoff Marine Museum, Bristol

LESSON 11 - "The Navy in Residence"

FIELD TRIPS

1. Naval War College Museum, Coaster's Harbor Island, Newport - Permanent exhibit on "The History of the Navy on Narragansett Bay".
2. Battleship Cove, Fall River, MA - Three WWII ships (battleship, destroyer and attack submarine) and a museum exhibit of over 150 ship models.
3. Fort Adams, Newport - One of the largest seacoast fortifications built in the United States and key to the defense of Narragansett Bay from 1897 to 1945.

GUEST SPEAKERS

1. Commander Pat Saxon, Naval War College Public Affairs -
841-2266, Ext. 3571

LESSON 13 - "The Depression and World War II"

FIELD TRIPS

1. Quonset Point, Davisville, Rhode Island
2. Naval War College, Newport, Rhode Island

GUEST SPEAKERS

1. Professional Shellfisherman (quahaugger)