Oyster Wars!!

Overview
Students will use primary and secondary sources to explore the Oyster Wars’ causes, conflicts, and participants.

Skills
Critical Thinking, Observation, Reading, Reasoning, Social Studies, U.S. History

You Will Need
• 60 – 90 minutes
• 5 copies of the Activity Sheet (after Explore It!)
• 5 Exploration Cards
• Students in pairs or small groups

Vocabulary
Aggregate: total, taken or considered as a whole
Commodities: things which are bought and sold; something of use or value
Conflict: a disagreement among people or organizations
Maintain order: to keep the community clean, safe, and organized for the good of all citizens
Rule: something you must or must not do
Tongs: rake-like tools with twelve- to thirty-foot-long handles used to scoop up oysters
Tongers: people who harvest oysters using tongs

Teacher’s Notes
You may wish to begin by discussing with students the idea that there are always at least two sides to a disagreement, argument, or conflict. Have students give examples of conflicts that are currently featured in the news. Next, have students read Discover It! and identify the conflicts presented.

Place the Exploration Cards at five stations throughout the classroom. Divide the class into small groups or pairs. Rotate the groups through the stations. As they move through the stations, students should complete the Activity Sheet. Those groups waiting for a station or who have completed all the stations can work on the questions on the Activity Sheet.

At the end of the Exploration review the completed Activity Sheets with the students and discuss the question, “Who fought in the Oyster Wars and what was the conflict?”

Additional Resources
John R. Wennersten, The Oyster Wars of Chesapeake Bay (Centreville, MD: Tidewater Publishers, 1981)
In the years after the Civil War, Chesapeake Bay oysters were one of the most valuable commodities on the Atlantic coast. As oystermen competed to harvest the most oysters, the Bay became a place of life-and-death struggles. The oyster industry was a multi-million dollar business and everyone wanted to get his fair share of the fortune. But who decides what’s a fair share?

Dredges were first brought to the Bay in 1808 from New England (where they had already used up most of the oyster stocks). Hand tongers (watermen who used smaller boats and hand-held tongs to harvest oysters) watched in alarm as dredgeboats swooped in and wiped their favorite oyster bars clean. In 1865 laws were passed that limited dredgers to the open waters of the Bay and reserved the Chesapeake’s rivers, creeks, and most of the Eastern Bay for tongers.

Given the difficulty of dredging in open water versus the ease of doing so in the protected waters reserved for tongers, this was a recipe for war. To dodge the new rules, some skipjack captains began dredging at night in the tongers’ waters. Tongers confronted these “oyster pirates” by shooting at them from the shore.

By 1868 the conflict had grown so bad, Maryland decided to create an Oyster Navy to maintain order on the Bay. Virginia soon followed Maryland’s example and established its own enforcement fleet.
Explore It!

Who fought in the Oyster Wars?

Activity

- Have you ever noticed that there are often, if not always, at least two sides to a disagreement, argument, or conflict? What are some examples that you can think of?
- What is the conflict identified in Discover It? What are the different sides of the conflict? Who represents these different sides?
- Carefully look at the Exploration Cards. The article, cartoon, and illustrations were created during the time of the Oyster Wars. The map has been redrawn from a historic map. Complete the Activity Sheet as you move through the stations.

What Else Can I Do?

Why are museums great places to visit? Because at a museum you see the REAL thing. Items and objects you may have read about in a history book are there for you to see. Many museums have hands-on exhibits that let you explore, discover, try, and touch. Visit your local museum or historical society. You may be surprised how much fun you’ll have.

Museums you could visit to discover more about oysters and oystering include –

- The Chesapeake Bay Maritime Museum in St. Michaels, Maryland
  www.cbmm.org
  410-745-2916
- The Calvert Marine Museum in Solomons, Maryland
  www.calvertmarinemuseum.org
  410-326-2042
- The Baltimore Museum of Industry in Baltimore, Maryland
  www.thebmi.org
  410-727-4808

Bet You Didn’t Know....

Most of the gossip in the barber shops, markets, and saloons in Crisfield, Maryland, in 1885 was about oysters.
## Activity Sheet

Complete this table as you move through the stations.

<table>
<thead>
<tr>
<th>Document</th>
<th>What/ Who is the source?</th>
<th>What is the conflict?</th>
<th>What sides are represented?</th>
<th>Does the source favor a side in the conflict? If so, which one?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quote by Fish and Wildlife Inspector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Pirates Attacking the Police Schooner <em>Julia Hamilton</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oyster Navy catching illegal dredgers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Map showing areas where tongers and dredgers are allowed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newspaper Article-<em>The Shooting of Captain Whitehouse</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MARYLAND.—THE OYSTER WAR—A STATE POLICE STEAMER OVERHAULING A PIRATE BOAT ON CHESAPEAKE BAY, OFF SWAN’S POINT.
THE PIRATES ATTACKING THE
POLICE SCHOONER
"JULIA HAMILTON"
Exploration Card

Oyster Wars!!

The site of the Captain of the Oyster Dredging, a battle in the Bay, Chesapeake pirates Read the perfect story and find the bullets flew thin and fast.

Annapolis, Md., February 19—The scene too much attention this season on the Chesapeake Bay, between the Navy and illegal oyster dredging vessels, took place Saturday night in which the common practice of oyster pirates was suspected. William E. Whitehouse, a crewman of the schooner Albert, was killed. When the schooner was towed to Annapolis Sunday morning, she was found to be empty with desolate decks, the boat was 16 feet long, was reported missing at the dock. The sails were found rigged up, and the deck was clear, but the cutter was found deserted. The investigation of the case is still in progress.

Surprising the Pirates

The vessel was caught by the police with Folly, Captain Henry W. Clarke, comptroller. He told the story of the battle. He had been cruising around the vicinity of the Annapolis harbor on Saturday evening looking for something that resembled oyster dredging. He had been all over the area, but found nothing except what he described as a "creek" oyster dredge. He had been in the area all day and had not seen anything that resembled anything except the creek oyster dredge.

The Pirate Captain KILLED

The pirate captain, Capt. W. W. Clarke, was killed by the crew of the Annapolis Guards. The crew of the Annapolis Guards arrived at the Annapolis dock on Sunday morning and took possession of the vessel. The Annapolis Guards are a small but effective police force and they have been successful in apprehending oyster pirates in the past.

The incident occurred when the Annapolis Guards approached the vessel and demanded to be shown the oyster dredge. The crew of the Annapolis Guards refused to show them the oyster dredge, but agreed to allow them to board the vessel. The crew of the Annapolis Guards then proceeded to board the vessel and search it for any evidence of oyster dredging. They found nothing, but returned to the dock and reported the incident to the Annapolis Guards. The Annapolis Guards then proceeded to the Annapolis dock and took possession of the vessel.

The Annapolis Guards are a small but effective police force and they have been successful in apprehending oyster pirates in the past. They have been successful in apprehending oyster pirates in the past.

The Annapolis Guards are a small but effective police force and they have been successful in apprehending oyster pirates in the past. They have been successful in apprehending oyster pirates in the past.
[Dredging in Maryland has become] ...simply a general scramble, carried on in seven hundred boats, manned by fifty-six hundred daring and unscrupulous men, who regard neither the laws of God nor man...The unscrupulousness of the captain is well assisted by the character of his men. These men, taken as a class, form perhaps one of the most depraved bodies of workmen to be found in the country. They are gathered from jails, penitentiaries, work-houses, and the lowest and vilest dens of the city. They are principally whites, many of whom are foreigners (almost every European country being represented), unable to speak more than a few words of English...It is a gratifying fact, though, that even amid such surroundings as these there are some few who are respectable and honorable men. This is more especially the case on the boats owned in the lower counties of Maryland. The crews of these are gathered from the surrounding neighborhoods, and even as a class are not as degraded as those on Baltimore vessels.

An Inspector, Fish and Wildlife Service, 1887
Deep waters legal for dredging

Shallow waters legal for tonging
Teacher’s Notes

Several days before you plan to complete this Exploration you may wish to assign students the homework of collecting advertisements that they find appealing from magazines, newspapers, circulars, or product packaging. Have the students bring the advertisements and packaging to class the day you want to teach the Exploration.

Begin by discussing with students the idea of advertising and how it is used to encourage people to purchase a product. Explain how food packaging and labels are also a form of advertising. Ask the students to look at the samples they brought to class. Have them compare the modern packaging with the historic oyster can labels and ads.

For the activity you may wish to have the students choose to work individually to create an oyster can label for their own brand of oysters or work in a small group creating a 30-second advertisement for their brand of oysters.

Additional Resources

The Chesapeake Bay Maritime Museum’s Oystering on the Chesapeake exhibit includes many examples of oyster canning labels and advertising.

The Baltimore Museum of Industry has a hands-on oyster cannery program and the Calvert Marine Museum includes the J.C. Lore and Sons cannery that is open to the public. It is a good idea to call and let them know when you want to visit.

The Calvert Marine Museum in Solomons, Maryland www.calvertmarinemuseum.org, 410-326-2042

The Baltimore Museum of Industry in Baltimore, Maryland www.thebmi.org, 410-727-4808

Overview

Students will learn how oysters were marketed to the public by examining historic oyster can labels. Students will design a label or advertisement for their own brand of oysters.

Skills

Art, Creative Writing, Observation, Reading, Social Studies, Teamwork

You Will Need

• 60 - 90 minutes
• 4 Exploration Cards
• Paper and drawing materials
• Students working individually or in small groups

Vocabulary

Advertising: giving information to people about a product
Canning: preserving a product, usually food, in a can
Competition: a business or person who sells the same product that you do; a rival
Consumer: a person who buys a product
Oysters from the Chesapeake Bay were one of the first foods to be preserved by canning. Sealing food into cans keeps it fresh longer. Oysters in the can could keep up to six months. This allowed people from all over the world to buy and eat oysters from the Chesapeake Bay.

Most of the early packinghouses were in Baltimore, but by the late nineteenth and early twentieth centuries oyster packinghouses had spread into rural areas, including Maryland’s Eastern Shore. Most businesses were small, family-run operations. Colbourne and Jewett Seafood Company, one of Maryland’s largest black-owned packinghouses, operated in St. Michaels in the place where the Chesapeake Bay Maritime Museum now stands.

Before they were canned, oysters were eaten close to the place where they were caught. So the new canners had a small problem: how to convince people used to eating fresh, local oysters to eat steamed oysters in a can? Good advertising was the key! Since all Chesapeake oysters are basically the same, canners also used advertising to convince people that their oysters were fresher, tastier, or healthier than anyone else’s.

Oyster canning labels were the advertisements for the oysters and the packinghouse. Oyster packinghouses were in stiff competition with each other to sell their oysters. The canning labels had to be attractive and catch the eye of the consumer so that they would choose one brand over another. The labels also included pictures and words that made it seem that the oysters were fresh and local. Notice how many have the names and pictures of Chesapeake places or boats on them. The labels also boast of the great taste of the oysters.

Like modern product packaging, canning labels contained information important to the consumer such as the weight, quality, and source of the product. Canning and smart advertising helped to fuel the oyster boom of the late 1800s.
Explore It!

How did advertising make eating canned oysters popular?

Activity

- Look at samples of modern advertisements and product packaging. Which ones make you want to buy the product? What do they have in common?
- Compare the modern packaging with the historic oyster can labels. What information do they include? How are they same as the modern packaging? Different?
- If the historic labels were used to sell oysters today would they be as successful as they were originally? Why or why not?
- Imagine that you own an oyster cannery. You need to create a label for your oysters that is going to make people buy your oysters rather than your competitor’s oysters. Come up with a name for your brand of oysters and design a can label. Work with a few classmates to create a 30-second commercial for your brand of oysters.

Bet You Didn’t Know....

Oysters were first canned in Baltimore. Before canning, oysters were sold by peddlers carrying buckets of fresh oysters through the streets, singing ‘Oh! Oh! Oysters fine and cheap.’ Singing was their form of advertisement.

What Else Can I Do?

For one day keep a tally of the number of advertisements that you see during the day.
Exploration Card

METOMPKIN
FRESH OYSTERS

NET CONTENTS 1 GALLON (3.785 LITERS)

TILGHMAN
OYSTERS
PACKED BY
THE TILGHMAN PACKING CO.
TILGHMAN, MD.

DELICIOUS SALTED WATER OYSTERS

In the Can
The Mystery of the Disappearing Oyster

Overview
Students will learn that the Chesapeake Bay is an estuary where conditions were ideal for growing oysters. They will also learn that the Chesapeake Bay oyster population is now at less than two percent of historic levels due to overharvesting, disease, habitat loss, and pollution.

Vocabulary
- **Estuary**: an area of water where fresh water and salt water meet
- **Recycle**: to reuse an item
- **Watershed**: an area drained by a river or stream; a drainage area
- **Oyster bar (also called an oyster bed)**: a group of oysters growing together on the Bay bottom
- **Spat**: a young oyster, or young oysters (used as singular or plural)
- **Purity**: the quality of being clean, clear, or without flaws
- **Bivalves**: soft-bodied animals with shells made of two pieces hinged together
- **Sediment**: tiny pieces of dirt, sand, dust, or other matter that settle to the bottom of a liquid (synonym: silt)

Skills
Art, Critical Thinking, Environmental Science, Informative Writing, Reading, Social Studies

You Will Need
- 60 minutes
- Art Supplies (paper, crayons, colored markers)
- Students working in pairs

Teacher’s Notes
You may wish to begin by having the students read *Discover It!* Discuss with students the idea that people’s daily activities can have positive or negative impacts on the environment. Ask the students to come up with examples from their own life. Explain to the students that the table in *Explore It!* contains descriptions of people whose activities may be harming the Bay. Have the students work in pairs to complete the table by listing specific ways each person may be harming the Bay and things each person could do to help the Bay. You may wish to copy the table onto the blackboard and fill it in as you discuss with the students the lists they developed. Next have the students create a Wanted Poster, Bay Helper Award, or radio public service announcement using the characters and information from the table. If time is limited, you may wish to assign this portion of the activity as a homework assignment. Allow time in class for the students to present their completed projects.

Additional Resources
The Chesapeake Bay Program at www.chesapeakebay.net has extensive online resources about the Bay and oysters.
Discover It!

Bay oysters used to grow in tall reefs that elevated oysters from the silty bottom into food-rich currents above. Reefs provided far more nooks and crannies for creatures to hide in than flatter beds do. In the 19th century, oyster beds were so large that they were considered navigational hazards. After 120 years of intense dredging, very few reefs remain in the Bay.

The Washington Post, May 23, 1993

The Chesapeake Bay is the largest estuary in the United States, running 195 miles long and passing through two states, Maryland and Virginia. The Chesapeake Bay is also the greatest oyster factory in the world. Along its length, fresh water from New York, Pennsylvania, West Virginia, Maryland, Virginia, Delaware, and the District of Columbia combines with salt water from the sea in just the right amounts (and at just the right depths and temperatures) to create a perfect environment for oysters.

Oysters are filter feeders that draw in water over their gills. The suspended food, plankton, and particles in the water are trapped in the gills and eaten. This filtering action is important to the overall health of the Bay because it cleans the water. One oyster, for example, filters up to 48 gallons of water per day. The entire Chesapeake Bay - 18 trillion gallons – is filtered once a year by the oyster population. When oysters were at their peak in population, they could filter the entire Bay once every three to six days! Today, oyster populations are disappearing. What could be causing this?

Along with oysters, over 2,700 species of plant and animals call the Bay home.

Over 15 million people live just a few minutes from one or more of the hundreds of streams, creeks, or rivers that drain into the Bay. Many of their daily activities directly affect the Bay. Lawns and gardens cover more than 500,000 acres in the Bay watershed. Use of too much fertilizer and pesticides result in these chemicals being washed into the Bay. Excess fertilizer and manure run-off from farms is also a principal polluter. Fertilizers cause huge amounts of algae to grow in the water. These algae absorb oxygen from the Bay and suffocate baby oysters. Chemicals in household cleaning supplies also find their way into the watershed. Are you beginning to see that what each of us does on land affects the Bay?

Housing developments that sacrifice forests and fields cause increased soil to be washed off the land by rain. This sediment then runs into the Bay burying and killing healthy oyster beds. Motor oil thrown away improperly finds its way into the Bay and in turn kill oysters.

But the Bay’s story doesn’t have to have an unhappy ending. You can take simple steps to stop this damage to the Bay. You can carpool, combine trips, and use public transportation; recycle; pull weeds by hand and reduce the use of lawn chemicals; use natural products such as lemon oil, salt or vinegar for cleaning instead of household chemicals; dispose of motor oil at a certified oil disposal site; and plant native trees and shrubs in your yard to prevent run-off into the street and storm drains. You have the power to make the Bay’s future bright!
Explore It!

How do Bay residents impact the Bay and the oyster?

Activity
- Carefully read Discover It!
- Read the descriptions of the people below. Fill in the table for what each person may be doing to harm the Bay and what they could do to help the Bay.
- Create a Wanted Poster for a Chesapeake Bay polluter or Create a Bay Helper Website or Award for a person who helped the Bay or Write a 30-second public service radio announcement teaching people about how they can help the Bay.

<table>
<thead>
<tr>
<th>Person</th>
<th>Harms the Bay</th>
<th>Could Help the Bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myhulz Leaky: An oysterman who sometimes takes a few more oysters than his daily limit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gladys Tuliproud: A gardener who makes sure her gardens are kept bug free and beautiful by using fertilizers and pesticides.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dilbert Porkbelly: Uses manure and fertilizer to grow his corn or soybean crop.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seymour Sprawl: Builds houses that can be seen for miles around because he likes to clear away all the trees before he begins to build.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olivia Oilcan: Owns a garage and keeps leaky barrels of used oil in the field behind her shop.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Roadhog Family: They love to play in the outdoors. They own a big boat and a big truck to tow the boat with. The Roadhog Family is always driving somewhere.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What Else Can I Do?
- Plant trees for the Bay. Stencil messages like “Chesapeake Bay Drainage….Don’t Dump!” around the storm drains in your school’s neighborhood.
- Contact the Chesapeake Bay Foundation at 410-268-8816 or www.cbf.org to learn more about these important opportunities for students.

Bet You Didn’t Know....
- An oyster today is considered large if it is 3 inches from hinge to bill (like me!). In the 1700s, a large oyster was 10
Overview
Students will use what they have learned from the other Explorations to develop a newspaper or newsletter entirely dedicated to the oyster and oystering.

Skills
Art, Creative Writing, Geography, Informative Writing, Reading, Social Studies, U.S. History

You Will Need
• 60 minutes per day over one week or more
• Computers with Internet connections
• Students working in small groups

Additional Resources
Maryland Marine Notes
www.mdsg.umd.edu/MarineNotes/
Chesapeake Bay Program
www.chesapeakebay.net

Teacher’s Notes
You may wish to begin by having students read the Discover It! materials and by browsing the web-sites of several Chesapeake Bay communities (listed in Explore It!) to understand the importance of oystering to these towns. You may also wish to have the students broaden their research with a trip to the school library. Then have the students look at newspapers and brainstorm, as a class, a list of common newspaper sections. Explain to the students that they are going to create a newspaper that is dedicated entirely to oystering. Divide the class into groups. Each group will be responsible for a specific department of the newspaper. Allow enough class time per day for groups to work on the project. Set department deadlines by which time they must present to you their section of the paper, possibly in draft and final forms. Depending on the materials available to you and your class and limitations of time or ability, these “final” products can take various forms:
1. Writing assignment format
2. Students can lay out their section by cutting and pasting their articles onto a sheet of paper the size of a newspaper spread
3. Students can use newsletter software to lay out their sections on the computer

You may wish to post the students’ newspaper in a common area of your school for other students and teachers to enjoy. An occasion such as OysterFest, held annually in November at the Chesapeake Bay Maritime Museum, can be used as a time to celebrate student work and discoveries.

Vocabulary
Environment: the geographic characteristics, air, plants, and animals that surround and affect the way people live
Geographic characteristics: the natural physical qualities of a place that distinguish it from another place
Physical features: landforms and bodies of water formed by nature
Have you ever seen a town built on oyster shells? On the shores of the Chesapeake, many towns were actually built on oyster shells. More oysters have been harvested from the Chesapeake than any other place on earth. Well into the twentieth century oystering represented the Bay’s most valuable fishery. The money and jobs from oystering built and sustained hundreds of communities, changing lives forever.

Towns grew and prospered with oystering. By the 1880s Crisfield had the largest oyster trade in the state and employed over 600 vessels. Like many waterfront towns, St. Michaels was almost abandoned by the male population during the day as all able-bodied men went out oystering. In southern Maryland, Solomons Island was a center for oyster processing and the construction and repair of oystering vessels. The environment, geographic characteristics, and physical features of these towns made them ideal locations for the oyster business.

In these communities, life revolved around the oyster. Husbands caught them, wives shucked them, children walked to school on roads made from their shells. It was not unheard of for rent to be paid, even newspaper subscriptions purchased, in oysters. Large mounds of oyster shells marked the sites of packinghouses. Communities grew to support the oyster industry. Houses and boarding houses were built to shelter workers. Workers were needed to shuck and pack oysters, repair ships and tools, mend sails, and load needed supplies.

Transportation lines, first ships then rail, were created and updated to speed the shipment of the oysters.

Today, with the decline in the oyster harvest, some of these places have become ghost towns while others have found different ways to succeed. The same characteristics that made these towns ideal for oystering now make them appealing to visitors. Tourists, boaters, and recreational fishermen visit the area and shop in the towns’ stores, stay in the hotels, explore the museums, and eat in the restaurants.
Explore It!

What was the importance of oysters and oystering to Chesapeake Bay communities?

Activity

- Research the importance of oystering to Chesapeake Bay communities. To begin your research use the Internet links listed below and ask your school librarian to show you how to find books, magazines, and newspaper articles on the topic.
  
  - www.stmichaelsmd.org
  - www.sba.solomons.md.us
  - www.crisfield.com

- Create a newspaper – dedicated entirely to oystering.
  - Take a look at a local, daily newspaper. What features do they have?
  - Brainstorm a list of common newspaper sections.

- Your class will be divided into groups. Each group will be responsible for a specific department of the newspaper such as News, Local Community, Lifestyle, and Classifieds.

- Work together to create and write your department’s section of the newspaper. Remember: Everything in the newspaper has to be related to oystering or oysters. As examples, an article on the sports page might describe a skipjack race or an ad in the classifieds might be looking for a shucker. As with all newspapers, you will have a deadline. By the deadline, you must present to your editor (your teacher!) your department’s finished section. So reporters – time’s wasting. Get to work!

Bet You Didn’t Know....

In the 1870s, several San Francisco merchants had 4,000 bushels of oysters shipped from St. Michaels to California. They didn’t want to eat these oysters - they wanted to plant the oysters in the waters of California and start their own oyster business.

What Else Can I Do?

Scan your daily newspaper for articles about the Bay, oysters, and other Bay resources. Clip the articles out. Begin a Bay Watch notebook with the articles. Ask your school or local librarian for advice on presenting and preserving the articles in a notebook.
Overview
Students will construct timelines that provide an overview of the history of oystering. This activity can be used as an introduction to a unit on oystering or as a concluding activity.

Skills
Decision Making, Reading, Social Studies, Teamwork, U.S. History

You Will Need
• 90 minutes
• It’s About Time Date Sheets
• Paper, colored pens, crayons, or markers, rulers
• Students working in groups of three

Additional Resources
The Bay Trippers web-site contains additional timelines of Bay history. They can be viewed at www.mpt.org/learningworks/baytrippers/index.html

Teacher’s Notes
You may wish to read the It’s About Time Date Sheets (after Explore It!) before beginning this Exploration with your students. The Date Sheets provide an overview of the history of oystering on the Bay.

Begin with a discussion of oysters as a natural resource. If your class has not made timelines before, show them what a timeline is and how to create one. Then divide the class into groups of three. Give each group a set of the three Date Sheets: Historic, Legal, and Harvests. Instruct them to work together to choose the twelve to sixteen most important dates that together tell the story of oystering. Using these dates, the students will create a timeline.

Post the completed timelines in the classroom. Use focused questioning to help the students discover key points about oystering from the information contained in the timelines such as:

• People have been attempting to control the oyster population for many years.
• With the introduction of oyster dredging, canning, and railroads, oyster harvest figures increased.
• As harvest figures increased, laws were enacted to regulate oystering.
• Large harvests were not sustainable.
• Factors other than over-harvesting have depleted the oyster population.

Vocabulary
**Deplete**: to use up or reduce the supply of something  
**Regulate**: to control or direct by a rule or law
Discover It!

The abundance of oysters is incredible. There are whole banks of them so that the ships must avoid them…the oysters surpass those in England by far in size, indeed, they are four times as large. I often cut them in two, before I could put them in my mouth.

Louis Michel, a Swiss traveler to the Bay area in 1701

Long before the first pyramid was erected in Egypt, people were harvesting oysters from the Chesapeake Bay. Even today the occasional pile of discarded oyster shells is unearthed miles inland, evidence of an early Native American feast.

Just about as long as people have been eating oysters, they have feared the depletion of oyster populations and made laws to try to regulate their harvest. Conservation efforts on the Chesapeake began in the early nineteenth century when first Virginia and then Maryland outlawed dredging.

In the 1880s, W.K. Brooks, professor at Johns Hopkins University in Baltimore and a leading oyster biologist, began recommending that the Bay’s oysters could be saved by raising them as a crop. Brooks recommended the states of Maryland and Virginia lease out sections of Bay bottom to private businessmen who, in turn, would use the grounds to grow oysters. Watermen were furious. The idea that someone might claim to “own” Bay bottom they had harvested oysters from all their lives was seen as taking away their rights. Eventually Virginia (where harvests declined faster than in Maryland) removed large areas of the Bay from public harvest and made them available for growing oysters. In Maryland the private farming of oysters is practiced only on a limited scale.

In the mid-twentieth century, concerned citizens began to take notice of troubling signs: diseases were killing oysters in the Bay and water quality was declining. In the 1970s, Congress passed the Clean Air Act and the Clean Water Act, citizens formed watershed groups, and officials banned certain pesticides and toxic chemicals.

A framework for Bay restoration goals was put in place in 1983 with the first Chesapeake Bay Agreement. The agreement formed the Chesapeake Bay Program: a partnership between Maryland, Pennsylvania, Virginia, the District of Columbia, the U.S. Environmental Protection Agency, and the Chesapeake Bay Commission. Its highest priority, the restoration of the Bay’s living resources, remains a strong goal today.
Explore It!

What is the story of oystering?

Activity

- Your class will be divided into groups of three. Each group will get a set of Date Sheets.
- Working together as a group, select a total of twelve to sixteen dates/events from all three Date Sheets that work together to tell the story of oystering.
- Using your selected dates/events, create your timeline.
- After the timelines are completed, post them somewhere in your classroom where they can be viewed together.
- What is the story the timelines tell?

What Else Can I Do?

Start a Student Bay Saver Club at your school. Contact the Chesapeake Bay Foundation to learn about the Bay Savers program and how to start one at your school. Write to:

Chesapeake Bay Foundation
Philip Merrill Environmental Center
6 Herndon Avenue
Annapolis, MD 21403
ATTN: Student Bay Savers

Ask your school librarian to recommend a book that explores the people and places of the Chesapeake Bay or check out one of these:

- Oyster Moon by Margaret Meacham
- On an Island in the Bay by Patricia Mills
- Waterman’s Boy by Susan Sharpe
- The Secret of Heron Creek by Margaret Meacham
- Awesome Chesapeake: A Kid’s Guide to the Bay by David Owen Bell
- Waterman’s Child by Barbara Mitchell
- Chesapeake Bay Walk by David Owen Bell

Bet You Didn’t Know....

Somebody, sometime had to be the first person to eat an oyster. Would you have been brave enough?
Date Sheet - Historic

2500 BC
Native Americans harvest oysters during seasonal visits to the Chesapeake Bay

1607
Captain John Smith notes that the Virginia Indians value oysters highly

Starving colonists from Jamestown are “reduced to eating Chesapeake oysters” which they consider a hardship food

Francis Makemie creates an elaborate scheme to pickle oysters and send them across the ocean to Europe.

1705
George Washington operates a thriving seafood business at Mount Vernon

1760s
Dredge introduced to Chesapeake waters from New England

1800s
Early Dredge introduced to Chesapeake waters from New England

1849
Ships sailing around Cape Horn carry Baltimore canned oysters to the California Gold Rush

1850
The Baltimore and Ohio Railroad reaches the Ohio River

Stagecoaches carrying mail between Cumberland and Cincinnati are so full of oysters westward bound mail is delayed

1865
The Civil War ends and with it all forms of legal slavery. Within the year 40% of all watermen are ex-slaves

1871
The sails of a thousand dredgeboats can be seen working the oyster bars of the Chesapeake

1881
In the state of Maryland alone the oyster industry now supports 10,000 watermen and their families

1882
Biologist W.K. Brooks predicts the depletion of the oyster beds

1886
20% of all the people employed in America’s fisheries work in the Chesapeake’s oyster industry

1890
Two or three railroad cars loaded with oysters leave St. Michaels every week for points west

1892
The use of chemical fertilizers becomes widespread

1897
The oyster killing disease MSX first appears in the Chesapeake

1905
Oysters now comprise only 10% of the Chesapeake’s total fish catch

1910
Hurricane Agnes dumps immense quantities of rain on the Bay’s watershed

1920
The disease Dermo begins killing oysters

1925
The E.C. Collier, a skipjack that had worked the waters since 1910, is put up for sale

1928
The Maryland Oyster Roundtable is formed to try to restore oysters
### Date Sheet - Legal

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1811</td>
<td>The State of Virginia bans all oyster dredging</td>
</tr>
<tr>
<td>1820</td>
<td>The State of Maryland bans all oyster dredging</td>
</tr>
<tr>
<td>1836</td>
<td>Maryland passes a law making it illegal for any African American to captain a vessel large enough to require being registered</td>
</tr>
<tr>
<td>1863</td>
<td>President Abraham Lincoln issues the Emancipation Proclamation freeing the slaves</td>
</tr>
<tr>
<td>1865</td>
<td>The Maryland legislature decides to once again permit oyster dredging in its waters, but only by sail-powered vessels</td>
</tr>
<tr>
<td>1868</td>
<td>Maryland establishes the Oyster Navy</td>
</tr>
<tr>
<td>1890</td>
<td>The cull law is passed, setting a 2.5 inch minimum size for oysters taken from the Bay and requiring that undersized oysters are returned to the beds from which they were taken</td>
</tr>
<tr>
<td>1891</td>
<td>The Chesapeake's first seafood workers union is formed in Crisfield, Maryland</td>
</tr>
<tr>
<td>1941</td>
<td>President Franklin Roosevelt signs articles of war as the United States enters World War II</td>
</tr>
<tr>
<td>1941</td>
<td>The first Chesapeake Bay Agreement is signed, establishing a voluntary government partnership that directs and manages the cleanup of the Bay</td>
</tr>
<tr>
<td>1983</td>
<td>The Chesapeake's first seafood workers union is formed in Crisfield, Maryland</td>
</tr>
</tbody>
</table>

An oysterman uses a culling tool to measure the size of an oyster.
### Date Sheet - Harvests

<table>
<thead>
<tr>
<th>Year</th>
<th>Bushels</th>
<th>Year</th>
<th>Pounds</th>
<th>Year</th>
<th>Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1839</td>
<td>710,000</td>
<td>1851</td>
<td>1,350,000</td>
<td>1856</td>
<td>2,610,000</td>
</tr>
<tr>
<td>1857</td>
<td>3,500,000</td>
<td>1865</td>
<td>4,879,000</td>
<td>1869</td>
<td>9,233,000</td>
</tr>
<tr>
<td>1874</td>
<td>14,000,000</td>
<td>1884</td>
<td>15,000,000</td>
<td>1889</td>
<td>9,945,000</td>
</tr>
<tr>
<td>1897</td>
<td>7,254,000</td>
<td>1904</td>
<td>4,500,000</td>
<td>1910</td>
<td>3,500,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1929</td>
<td>34,510,416</td>
<td>1930</td>
<td>36,723,846</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1935</td>
<td>35,786,100</td>
<td>1940</td>
<td>37,457,100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1945</td>
<td>32,569,900</td>
<td>1949</td>
<td>29,953,500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1954</td>
<td>41,587,800</td>
<td>1955</td>
<td>39,227,500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1960</td>
<td>27,110,100</td>
<td>1961</td>
<td>18,274,300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1963</td>
<td>18,274,300</td>
<td>1965</td>
<td>21,188,500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1970</td>
<td>24,668,500</td>
<td>1975</td>
<td>22,639,500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1980</td>
<td>22,791,100</td>
<td>1984</td>
<td>12,364,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1985</td>
<td>13,121,158</td>
<td>1990</td>
<td>4,515,113</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1993</td>
<td>571,393</td>
<td>1995</td>
<td>1,595,979</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2000</td>
<td>2,531,302</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Additional Classroom Resources

On the Internet:
Chesapeake Bay Maritime Museum
www.cbmm.org
Curriculum Guide for Chesapeake Bay through
Ebony Eyes www.dnr.state.md.us/irc/boc.html
Chesapeake Bay Foundation
www.cbf.org
Bay Trippers
www.mpt.org/learningworks/baytrippers/index.html
Oyster Recovery Partnership
www.oysterrecovery.org
Maryland Watermen’s Association
www.marylandwatermen.com
The Chesapeake Bay Program
www.chesapeakebay.net
Lower Eastern Shore Heritage Committee, Inc.
www.skipjack.net/le_shore/heritage/
Maryland Marine Notes
www.mdsg.umd.edu/MarineNotes/
Maryland Sea Grant
www.mdsg.umd.edu
The Watermen’s Museum, Yorktown, Virginia
www.sightsmag.com/usa/va/york/sights/wmm/wmm.htm
Horn Point Lab Hatchery Site
www.hpl.umces.edu/facilities/oysters.html
The Paynter Lab
www.life.umd.edu/biology/paynterlab/
PaytnerHomepage.html

Video:
Chesapeake Bay Foundation, Common Ground
Maryland Sea Grant, From the Bottom Up: Restoring Oyster Reefs in Chesapeake Bay, 2001
Crisfield and Smith Island Cultural Alliance, Inc.,
Smith Island: Land & Water, People & Time

Books and Other Publications:
Larry S. Chowning, Harvesting the Chesapeake; Tools and Traditions (Centreville, MD: Tidewater Publishers, 1990)
Ann E. Dobin, Saving the Bay: People Working for the Future of the Chesapeake (Baltimore: Johns Hopkins University Press, 2001)
Randall S. Peffer, Watermen (Baltimore: Johns Hopkins University Press, 1979)
Pat Vojtech, Chesapeake Bay Skipjacks (Centreville: Tidewater Press, 1997)
John R. Wennersten, The Chesapeake: An Environmental Biography
(Baltimore: Maryland Historical Society, 2001)

For Students:
David Owen Bell, Chesapeake Bay Walk (Centreville, MD: Tidewater Publishers, 1998)
Margaret Meacham, Oyster Moon (Centreville, MD: Tidewater Publishers, 1996)
Margaret Meacham The Secret of Heron Creek (Centreville, MD: Tidewater Publishers, 1991)
Susan Sharpe, Waterman’s Boy (New York: Simon and Schuster, 1990)

Possible Guest Speakers:
Chesapeake Bay Foundation Speakers’ Bureau
410-268-8816
Oyster Recovery Partnership 410-990-4970
The Chesapeake Bay Program www.chesapeakebay.net/involved.htm
Nanticoke Watershed Alliance
www.nanticokeriver.org
Maryland Humanities Council www.mdhc.org/
Illustation Credits

Cover
Forest Wells, Chesapeake Bay Maritime Museum (CBMM), St. Michaels, MD

Exploration 1
E.C. Collier—Fred Thomas, CBMM
Wilson “Turk” Cannon—Lila Line, CBMM
Jib man—Robert de Gast, CBMM
Aerial of dredgeboats—H. Robins Hollyday, courtesy of the Historical Society of Talbot County, Easton, Maryland
Cleaning up dredgeboat; Aerial of skipjack; Men in galley; Men culling—Robert de Gast, CBMM
Crew bringing dredge aboard—Forest Wells, CBMM

Exploration 3
Tallying oysters at McNasby Oyster Co.; Man in bunk—Robert de Gast, CBMM
Men watching dredge come aboard—Pauline Larrimore Cummings Collection, CBMM

Exploration 4
Joe Buck—Patuxent River Folklife Project, courtesy of the Calvert Marine Museum, Solomons, Maryland
Capt. John Larrimore—William J. Hingst, CBMM
Samuel E. Turner Sr.—William Kepner, CBMM
William Jones—Laura Vlahovich, CBMM

Exploration 5
Women shucking—Robert de Gast, CBMM
Conroy Butler; Bertha Curtis; Ruth Mackall Smith; Joe Buck—Patuxent River Folklife Project, courtesy of the Calvert Marine Museum
Men shucking—Robert de Gast, CBMM

Exploration 6
“The Pirates Attacking the Police Schooner Julia Hamilton”—Harper’s Weekly, March 1, 1884
Map of tonging and dredging grounds—redrawn from Plate LVI of the Bulletin of the US Fish Commission, Vol XII for 1892, GPO 1894.
“The Pirates Dredging at Night”—Harper’s Weekly, March 1, 1884
“Maryland.-The Oyster War-A State Police Steamer Overhauling A Pirate Boat On Chesapeake Bay, Off Swan’s Point”—Frank Leslie’s Illustrated Weekly, January 7, 1888

Exploration 7
Valliant’s Delight brand oysters label—William H. Valliant & Co. Manuscript Collection, CBMM
The Lieb Packing Co. Sun Brand raw oysters billhead; J.D. Groves & Co. billhead—CBMM
Tilghman oyster can, CBMM—photograph courtesy of David Harp
All other oyster cans, CBMM
Peterson’s Famous Seafood poster—CBMM

Exploration 9
Woodburn oyster house—courtesy of the Calvert Marine Museum, Solomons, MD
Workers on Annie Bennett, c. 1898—Marion Brewington, courtesy of the Calvert Marine Museum, Solomons, MD

Exploration 10
Tonger on the Miles River—H. Robins Hollyday, courtesy of the Historical Society of Talbot County, Easton, MD