

# Working Waterfront Curriculum Resource Guide

## A Resource Guide about New Bedford's Commercial Fishing Industry for Students and Teachers



*JG Fleuriel photo*

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## Why Study New Bedford's Working Waterfront?

The port of New Bedford is one of our nation's major fishing ports. In dollar value of the catch, it has been number one for the last several years. The fish sold here, and the fishing industry's many shoreside businesses, provide major support for the city's and region's economy.

Commercial fishing is also an integral part of New England's cultural heritage. The people of New Bedford's fishing industry have much to teach us—by telling about family histories and work experiences, demonstrating skills, and sharing traditions that are part of their lives and community. They can help students explore varied concepts and subjects, and come to appreciate that what is happening right here at home has such relevance to their larger world today.

### Massachusetts Curriculum Frameworks - Grade 6: Making Connections

Studying the fishing industry allows for many possible frameworks connections:

#### Mathematics

The fishing industry lends itself to **solving problem in everyday contexts**. Students can solve problems or create graphs and charts using information such as: *pounds of*—fish caught, ice in the boat's hold, fish the lumpers who unload the boats can offload per hour; *prices* received per pound of fish; *costs*—per gallon of fuel (along with miles per gallon and miles traveled on a trip), of stocking a fishing boat; *settling up*—paying the crew (and other costs) from the profits of the catch; *dimensions*—of fishing vessels or wharfs (to draw a scale diagram, for example); *recipes*. For more advanced students, there are challenges in calculating problems such as *water displacement* of empty and full vessels.

#### English Language Arts

The fishing industry offers opportunities for **drawing on literature from many genres and cultures**. Students can collect and/or read *oral histories* of people in the fishing industry, learning to value the spoken story and the varieties of stories people have because of the work they do or their ethnic origin. They can

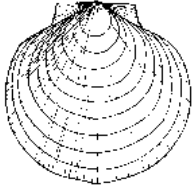
read *poems* and listen to *songs* written by and about fishermen, both for their literary qualities and the information they share. Students can also apply their knowledge of the industry to **developing oral language** and **writing using various kinds of discourse**. They can create: written and oral *reports* on a fishing industry fieldtrip or classroom visitor; *fact sheets* that teach about the industry; *descriptions* of fish and fishing vessels; *narratives* about a real or fictional person from the local fishing industry; *letters to the editor* persuading readers to buy more local fish or contact a legislator about fishing industry laws; *plays* based on oral histories or information class visitors have shared; *summaries* of information in industry publications or Web sites; *radio, TV or magazine ads* for buying local seafood or for events such as the Working Waterfront Festival. Students can also strengthen their **media literacy** as they explore the industry—they can learn from boat captains about *radio communication* on fishing vessels, and explore industry-related *Internet sites*.

### Science and Technology/Engineering

There are many ways that study of the fishing industry can help students **build understanding of fundamental concepts of each domain of science**. Students can explore concepts of physics, biology, earth science, and technology in learning about topics such as: *wind* and *weather* classifications and today's weather tracking instruments; ocean *currents*; contours of the *ocean floor* at Georges Bank fishing grounds; how *barometers* work; composition of the *estuary* at the harbor; the harbor's *hurricane barrier* (its design, materials, and operation); commonly caught *fish species*; *tools* for doing various tasks on fishing vessels and in offloading and processing of fish.

### History and Social Science

Students can analyze the fishing industry in terms of **the five themes of geography** and other **geographic terms**. They can: **compare and contrast an early maritime civilization** with fishing in New Bedford today; **construct graphs and charts** showing temperature and hurricane patterns; learn about the many **ethnic groups** that New Bedford's fishing industry has attracted, and research their countries of origin in **world atlases**; research how fish caught in New Bedford contributes to the **trade among nations**; apply the concept of **market economy** to the seafood auction.



**Lesson Title: Create a menu for a seafood restaurant!**

**Duration:** 3-4 45-minute class periods

**Overview:** In this interdisciplinary activity, students will create a seafood restaurant menu. This project is designed to engage students creatively while allowing them to demonstrate a variety of skills. This project can be added to and/or altered to fit a variety of objectives, readiness levels, and learning styles.

**Content Areas:** History and Social Science (Economics), Math, Science, English Language Arts, and Art, possibly Health and/or Foreign Languages

**Standards:**

**English Language Arts**      **4** Students will understand and acquire new vocabulary and use it correctly in reading and writing.

**8** Students will identify basic facts and main ideas in a text and use them for a basis for interpretation.

**13** Students will identify, analyze and apply knowledge of the purposes, structure and elements of nonfiction or informational materials and provide evidence from text to support their understanding.

**Life Science**      **1** Classify organisms into currently recognized kingdoms according to characteristics they share.

**History and Social Science (Economics)**      **12** Define supply and demand and describe how supply and demand affect the prices of specific products.

**13** Identify key elements of a market economy.

**Math**      **6.N.9** Select and use appropriate operations to solve problems involving addition, subtraction, multiplication, division, and positive integer exponents with whole numbers, and with positive fractions, mixed numbers, decimals, and percents.

**6.N.16** Estimate results of computations with whole numbers, and with positive fractions, mixed numbers, decimals, and percents. Describe reasonableness of estimates.

**Objectives:** Students will: identify various species caught by our local fishermen, demonstrate knowledge of fishing's importance to our local economy; explain how they take part in the economy as seafood consumers.

**Resources:**

Background Essay sections: "Seafood Auction"; "Seafood: Which Fish Is This?";  
"From the Ocean to the Plate: Foodways"

Local Newspaper (*Standard Times*) fish auction report

Whaling City Seafood Display Auction, [www.whalingcityauction.com](http://www.whalingcityauction.com)

Fish Identification Books/Web Sites

**Materials:**

Construction Paper

Pencils

Colored pencils and/or crayons

Markers

**Activator:** Do you eat seafood? What types? Can you name them? Where do you get your seafood? Where does our seafood come from? How does it get to the fish markets, restaurants, and grocery stores? How do restaurants and markets know what to charge you?

**Background Knowledge:** This is designed to be a project to demonstrate cumulative knowledge of the fishing industry after reading the suggested articles.

**Finished Product:** A seafood restaurant menu designed by the students that demonstrates persuasive writing, art, science, social studies, and math concepts (and possibly foreign language and/or health).

**Assessment:**

**Rubric Suggestion**

Restaurant name (Creative Writing) pts.	5
Restaurant logo/slogan (Art/Creative Writing) pts.	5
Menu cover design (Art)	10 pts.
Meal categories (appetizer, soup, salad, main course, etc)	5 pts.
10 seafood dishes with descriptions (Persuasive Writing)	40 pts.
Meal pricing based on local auction wholesale prices (Math/Social Studies)	25 pts.
Drawings of specific species (Science) (e.g., codfish, haddock, scallops)	10 pts.

**Total .....100 points**  
**Grade A+**

**Extension:** Low-Carb Offerings (Health) and/or Ethnic Recipes (Foreign Language)

This project may be altered to align with Health and Foreign Language standards. Foreign language could explore ethnic recipes, menus with added translations, etc. Health may focus on nutrition, healthy choice menus, caloric intake, etc.