

# *The Port of Green Bay wants to bring the Great Lakes into your classroom!*

The **Great Lakes Shipping Education Trunk** is a new resource being offered through the Port of Green Bay to help bring the importance of the maritime transportation industry operating on the Great Lakes to K-12 students.

The trunk was developed through the Western Upper Peninsula Center for Science, Mathematics and Environmental Education and contains comprehensive and useful materials that can be adapted to your classroom needs.

**How to Rent:** The Great Lakes Shipping Trunk can be rented **FREE** of charge to teachers in Brown County. The trunk can be reserved for one week and must be picked up and dropped off by the teacher at the Port and Solid Waste office, 2561 S. Broadway, Green Bay, WI 54304. Regular business hours are Monday – Friday from 7:30 a.m. – 4:00 p.m. Call (920) 492-4953 for more information or to reserve the trunk.

**Portions of the Great Lakes Shipping Trunk is used in the 4<sup>th</sup> and 6<sup>th</sup> grade Port of Green Bay education materials.**

## **Great Lakes Shipping Education Trunk Contents**

### **HANDS-ON TEACHING MATERIALS**

#### **Great Lakes Floor Map**

15' x 20' canvas floor map of the Great Lakes Basin, including adjacent states and provinces. The map is a great way to teach students of all ages (with shoes off!) about the Great Lakes watershed, shipping, geography, and more. Includes laminated labels for shipping and receiving ports, major rivers, states, provinces, and countries.

**Cargo Samples:** low-sulfur western coal, iron pellets (taconite), grain, salt, limestone, general cargo

**2 sets of Great Lakes playing cards** (52 vessels)

**Poster of a 'laker' & parts' labels**

**Foam replica of a Great Lakes 'laker'** (and ship captain's hat, if available)

### **CHILDREN'S LITERATURE**

Armbruster, Ann. (1996). ***A True Book: St. Lawrence Seaway*** Grades 2-5

Describes the route of ships carrying cargo from Lake Superior to the Atlantic Ocean, including the history, geography, industry, and benefits of shipping on the Seaway.

Barker, Charles Ferguson. (2005). ***The Day the Great Lakes Drained Away*** Grades 2-5

What would happen if the Great Lakes drained away? This unique children's book shows the interesting landscape that would be revealed if all the water in the Great Lakes was to suddenly disappear. This book educates children and adults about the geologic features under the Great Lakes, and reminds us never to take the Great Lakes for granted.

Bergel, Colin. (2000). ***Mail by the Pail*** Grades K-5

This book illustrates the mail delivery system for Great Lakes freighters. The J. W. Westcott Company operates the mailboat for the U.S. Postal Service marine post office in Detroit-the only mailboat that delivers mail to freighters while they are moving.

Edwards, Jack. (2000). ***The Big Fitz*** Grades 1-6

This “big book” measuring 3’ x 2’ is a perfect resource for introducing Great Lakes shipping and the story of the Edmund Fitzgerald. Its large diagrams of Great Lakes freighters facilitate learning about the parts of a ship and the shipping industry.

Gibbons, Gail. (1992). ***The Great St. Lawrence Seaway*** Grades K-5.

Explains the history of this great trade route. Early French explorers and fur traders were halted by the treacherous rapids 500 miles upstream and eventually developed a system for carrying their trade canoes and cargoes around the dangerous stretches of the river, reaching the Great Lakes. Eventually, locks were built. The lock system is clearly explained in a series of animated diagrams.

Hertel, Captain Robert. (1999) ***The Edmund Fitzgerald: Lost With All Hands*** Grades 3-6

A factual account describing the fate of the Edmund Fitzgerald, including Great Lakes geography, shipping, and theories as to why the ship sank. Also contains a simple maritime glossary.

Holling, Holling Clancy. (1941). ***Paddle to the Sea*** Grades 3-5

An Indian boy carves a wooden canoe and sets it into Lake Nipigon to watch it float away. The canoe spends four years on the water, being picked up by loggers, fishermen, and families before finally making it to the ocean. The canoe’s adventures give children a sense of the wonders and diversity in the Great Lakes.

Wargin, Kathy Jo. (2003) ***The Edmund Fitzgerald: The Song of the Bell*** Grades K-5

The giant ship leaves Superior, Wisconsin loaded with iron ore. But disaster looms as the storm clouds, known as the ‘gales of November’ gather. This is the story of what happened to the 29 sailors and their ship.

## REFERENCES

Lake Carriers Association. ***U.S.-Flag Shipping on the Great Lakes***\_(brochure) and ***Map of U.S. and Canadian Great Lakes Ports*** (brochure). Describes major cargoes and provides a useful map of shipping and receiving ports.

***Great Lakes Watershed Map*** (2’x3’) by Michigan Sea Grant

***Great Lakes Environmental Atlas*** by U.S. Environmental Protection Agency and Environment Canada. 1995. Maps, history, management, diagrams, facts on the five Great Lakes.

***Map of the Great Lakes: from Lake Champlain to Lake of the Woods*** (NOAA #14500). View at [www.irnha.org](http://www.irnha.org)

## VIDEOS / CDs / DVDs

***Living on the Edge: Great Lakes-St. Lawrence Shoreline DVD*** (25 min.) by US Army Corps of Engineers and International Joint Commission. Erosion processes, habitat diversity, commercial shipping, dredging, fluctuating water levels, and recreational boating.

***Shipping Out: The Story of America’s Seafaring Women*** (60 min DVD) produced by Maria Brooks ([wfsoundings@aol.com](mailto:wfsoundings@aol.com)). Tells the little-known history of women and seafaring in America. Meet women who hold jobs in commercial shipping, working on container ships, bulk cargo carriers and tankers, as well as coastal tugs, barges, and ferry boats, all on America’s waterways. Women were first ‘allowed’ into maritime academies in 1974. The women who graduated were the first officers to sail on merchant ships in America. While often unwelcome by their male colleagues, and sometimes harassed, they persevered.

See Study Guide listed below.  
The video is appropriate for 8th grade and above.

**Steel Starts Here DVD** (12:00 minutes) Cleveland Cliffs, Inc. Michigan Operations (2005) [www.cleveland-cliffs.com](http://www.cleveland-cliffs.com). Follow a hunk of iron ore as it is mined and transformed into a taconite or a pelletized ball that is 60% iron and goes on to become the steel used in automobiles, rail lines, buildings, and many more of our everyday products.

**Top Ten Threats to the Great Lakes CD** (54 min)  
A radio program broadcast by the Great Lakes Radio Consortium in 2005, describes the top ten Great Lakes issues through interviews with scientists, decision-makers, organizational representatives, and concerned citizens. The threats include: water diversions from the Great Lakes, invasive species, polluted beaches, and shipping. See the entire list at: <http://www.gllrc.org/topten.php3>

**A Vital Waterway – The Great Lakes St. Lawrence Seaway System Video** (10:28 minutes) by St. Lawrence Seaway Development Corporation [www.greatlakes-seaway.com](http://www.greatlakes-seaway.com). Captures the grandeur and economic importance of *The Great Lakes St. Lawrence Seaway System*--- its bustling ports, comprehensive marine transportation infrastructure, diverse intermodal transportation connections, and scenic vistas which all contribute to the making of North America's premier inland waterway.

## CURRICULUM MATERIALS

**Exploring the Great Lakes: A Logbook of Adventures** by Patricia Westfield and Nan Soper (2003) Ages 8+. Includes information and activities on Great Lakes geography, history, shipping and commerce, folklore, environmental issues, along with mapping activities. CD-ROM includes video selections of Niagara Falls, locks and canals, ships, light-houses, and more.

**Lake Rhymes – Folk Songs of the Great Lakes Region CD & Book** by Lee and Joann Murdock. (2004). 18-song CD with 71 minutes of Lee Murdock performance, plus 146-page book of musical scores, and over 70 historic photos, maps and illustrations. Focuses on Great Lakes maritime history and traditional folk music, providing the stories behind each song, and ideas for using the songs to teach history, English, music and geography.

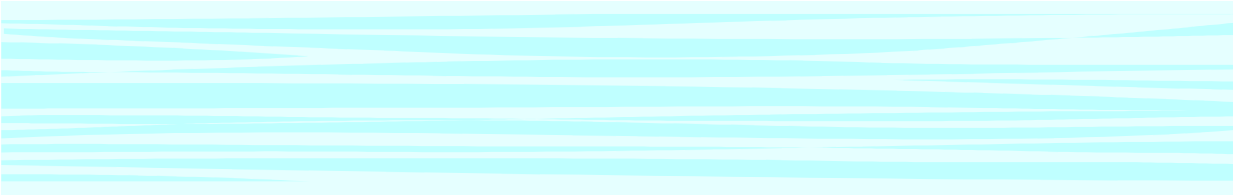
**Paddle to the Sea Curriculum Activities** by Marcia Seager, Rosane Fortner, Timothy Taylor. Ohio State University. Grades 2-6. Forty activities on Great Lakes geography, shipping, lake ecosystems, and stewardship.

**Shipping Out: The Story of America's Seafaring Women Study Guide** by Thomas Coons  
This booklet is a companion guide to the video, and designed for classroom use by teachers to explore subjects raised in the documentary. It looks at women's roles in our society and how these roles are rapidly changing. The guide offers discussion questions and lists activities for classroom use. It suggests projects that will examine various topics more fully. The booklet provides supporting information not always covered in the video. Each topic is supplemented by a bibliography and a list of websites worthy of further exploration. *Shipping Out*, the video and the guide, will be useful in classes on American history, civics, women's history, maritime history, gender studies, occupational studies, and folklore. The video is appropriate for 8th grade and above.

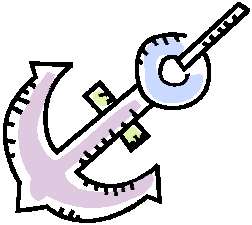
**Notebook of Shipping lessons and Great Lakes Shipping PowerPoint Presentation on a CD**

**Graphics used on site:**

**Waves:**



**Anchor:**



**Ship:**

