

Great Lakes Shipping: The Story of the “Edmund Fitzgerald”

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Target Grade: 6th grade reading and social studies (Minnesota History)

Lesson Overview

This lesson is a four day unit that will integrate reading and social studies objectives. The topics covered will be vocabulary development, compare & contrast, cause & effect, mapping skills, and determining importance in nonfiction text.

Objectives

After this lesson, students will be able to:

1. Define new terms related to shipping (examples: taconite/iron ore, aft, stern, ballast, listing, broach)
2. Recognize the difference between the two major theories (Open Hatch and Shoaling) that support the sinking of the Edmund Fitzgerald
3. Create a map of the Great Lakes shipping route used by the Edmund Fitzgerald
4. Determine & analyze one significant event from the story of the Edmund Fitzgerald and construct a brief presentation to the class that demonstrates this event.

Minnesota Reading Standards Addressed:

Target 1 - literature:

- Relate a given literary work to historical events (place, time, and custom)
- Respond to literature using ideas and details from the text to support reactions and make literary connections.

Target 2 – vocabulary expansion:

- Acquire, understand and use new vocabulary through explicit vocabulary instruction and independent reading.

Target 5 – speaking, listening, viewing

- Orally communicate information, opinions, and ideas effectively

Minnesota social studies standards:

Strand: Geography

Sub-Strand: Interconnections

Standard Benchmark: Students will explain how Minnesota is connected to the rest of the world through trade such as shipping of taconite.

Materials Needed

- Map of the Great Lakes (one for each student)
- Video: Shipwreck: The Mystery of the Edmund Fitzgerald
- The Edmund Fitzgerald Lost with All Hands by Cpt. Robert Hertel
- The Edmund Fitzgerald Song of the Bell by Kathy-Jo Wargin
- Gordon Lightfoot – Gord’s Gold Volume II (The Wreck of the Edmund Fitzgerald) with lyrics
- LCD projector/lap top/ internet access
- Colored Pencils
- Ruler

Room Arrangement or Special Needs: None

New Vocabulary Words:

1. Aft – behind or back
2. Ballast – weight added to lower a ship in the water making it less top heavy
3. broach – when a vessel rolls onto its side
4. listing – tipping to the side
5. stern – back of the ship
6. taconite – iron ore found in the Lake Superior region, refined, and formed into pellets
7. shipping route – the route in which a freighter travels from port to port

Background information

On November 9, 1975, the Edmund Fitzgerald left the port of Superior, Wisconsin bound for Detroit, Michigan. Carrying 26 thousand tons of taconite to be used to build cars, the crew anticipated a routine trip across Lake Superior. The Arthur M. Anderson, another great lakes freighter was 10 miles behind the Ed Fitz. When a gale warning was issued by the weather service, the two ships decided to travel together. Several significant communication failures occurred – long range radar was not operative, then short range was lost, then the Whitefish Point Lighthouse lost power due to the storm. Essentially, the Ed Fitz was without navigational aids.

Two theories surround the tragic disappearance of the Edmund Fitzgerald. Shoaling, or running aground, is one popular theory. It is believed that the great ship struck bottom on the Six Fathom Shoal off the shores of Caribou Island. Another theory is referred to as the open hatch theory. Some believe that the hatches were not sealed properly, causing the freighter to take on excessive amounts of water that resulted in the ultimate sinking of the Edmund Fitzgerald.

Pre- Assessment/ Focus Question:

1. What is the significance of the name, Edmund Fitzgerald?
2. What cargo is transported across the Great Lakes?

Attention-Getter or Hook:

Listen to the song “The Wreck of the Edmund Fitzgerald” by Gordon Lightfoot. Have lyrics available to students so that they can follow along.

PROCEDURE

Day One:

1. Write pre-assessment questions on the board. Discuss student responses and give correct information.
2. Distribute lyrics
3. Play the song “The Wreck of the Edmund Fitzgerald”
4. Listen to song and discuss
5. KWL chart on Edmund Fitzgerald
6. Write the 6 vocabulary terms on the board for students to listen to during the reading of the book, The Edmund Fitzgerald Song of the Bell by Kathy-Jo Wargin
7. Record and discuss vocabulary and events in the book.

Day Two:

1. Distribute book The Edmund Fitzgerald Lost with All Hands by Capt. Robert Hertel
2. In small groups partner read pages 38-43.
3. Record notes on the shoaling theory and the open hatch theory
4. Whole class discussion about theories that support the sinking of the Edmund Fitzgerald.
5. Closure: Read epilogue

Day Three:

1. Distribute blank maps of the Great Lakes & Lake Carriers’ Association (LCA) packet of shipping routes on the Great Lakes (for student & teacher reference)
2. Teacher display map of shipping routes from LCA on LCD projector for classroom discussion on shipping. Address the following topics:
 - Minnesota exports (taconite, etc.)
 - Shipping routes/stops/locks
3. Students label the following locations:
 - Superior, Wisconsin
 - Duluth, Minnesota
 - Port Huron, Michigan
 - Detroit, Michigan
 - Marquette, Michigan
 - Michipicoten Island
 - 6 Fathom Shoals
 - Caribou Island

- Whitefish Point
 - Sault Ste. Marie
 - Lake Superior, Lake Michigan, Huron, Erie, Ontario, St. Lawrence
 - Toronto, Canada
 - Atlantic Ocean
4. Trace a shipping route starting in Duluth, Minnesota to Detroit, Michigan
 5. Trace a shipping route starting in Marquette, Michigan to Toronto, Canada and out to the Atlantic Ocean

Day Four:

1. View video: Shipwreck: The Mystery of the Edmund Fitzgerald
2. Discuss significant points and review KWL chart from Day 1
3. In small groups students web significant events of the Ed Fitz
4. Students choose one of these events and create a brief performance modeling the event.
5. Share with class on following day.

Safety Considerations: None

Assessment for Edmund Fitzgerald unit:

Day One:

Assess students on completion of vocabulary words. Six of these words will come from class notes while the other 4 students will need to find in their reading/ listening from books read in class (Edmund Fitzgerald Song of the Bell).

Day Two:

Teacher circulates room and listens/observes groups of students read and discuss the theories that support the sinking of the Edmund Fitzgerald.

Open Hatch Theory:

- Coast Guard believed there were leaking hatches
- Believed large waves entered cargo hold through bad seals around hatches
- Believed that some hatch clamps were not fastened securely

Shoaling Theory:

- Lake Carriers Association thought Ed Fitz struck bottom at Six Fathom Shoals, damaging hull of ship
- Believed the captain accidentally drove ship over shallow area
- Pressure from hitting bottom would have blown vents off of deck

Day Three:

Students hand in maps of Great Lakes with at least 10 of the listed items labeled as well as the two shipping routes. Students will include three to five sentences explaining how a Minnesota taconite company would ship cargo to Toronto (or another international port of choice)

Teacher: refer to page 29 in *The Edmund Fitzgerald Lost With all Hands* for map and answers.

Day Four:

Students perform in small groups 3 significant events from the Edmund Fitzgerald story. Requirements:

- 5 minute presentation
- All members of group speak
- Clearly present information about significant events, including people, locations, elapsed time, and changing weather conditions.
- Demonstrates either the shoaling theory or open hatch theory

Resources/References

Holling Clancy Holling. *Paddle to the Sea*

<http://www.great-lakes.net/econ/busenvt/maritime.html>

<http://www.shipwreckmuseum.com/>

<http://greatlakeshistory.homestead.com/home.html>

<http://www.nmc.edu/maritime/>

<http://www.greatlakes-seaway.com/en/seawaymap/index.html>

Hertel, Robert. (1999). *The Edmund Fitzgerald Lost With All Hands* (p. 29, pp. 38-45). Spring Lake, Michigan: River Road Publications, Inc.

Shipwreck: The Mystery of the Edmund Fitzgerald (video). (1995) Great Lakes Shipwreck Historical Society.

Wargin, Kathy-Jo. (2003). *The Edmund Fitzgerald Song of the Bell*. Chelsea, Michigan: Sleeping Bear Press.

Boswell, Mark (November 10, 2005) "When the Gales of November Came Slashing – The Edmund Fitzgerald" Minneapolis Star Tribune

Lake Carriers Association www.lcaships.com

