The Edmund Fitzgerald-Vanished in the Night
Sarah Stevens, CLK Elementary School  sstevens@clkschools.org

Target Grade:  Kindergarten
Subjects:  Science and Social Studies

Lesson Overview
These two lessons are intended to introduce kindergarten students to shipping on the Great Lakes by learning about the Edmund Fitzgerald.  The reason I chose to focus on the Edmund Fitzgerald is because its sinking was the most famous disaster in the history of Great Lakes shipping.  My goal is that children learn what the Great Lakes are and that they identify the lake closest to us---Lake Superior---which is also where the Edmund Fitzgerald sunk.  My goal is to have students learn about the past and become familiar with how shipping affects our present everyday life.

Sources Consulted


Learning Objectives
At the end of this lesson, students will be able to:
1.  Explain that one way we learn about the past is by listening to stories
2.  Experience learning about the past by listening to The Edmund Fitzgerald:  Song of the Bell
3.  Identify the Great Lakes (Huron, Ontario, Michigan, Erie, and Superior) by utilizing the HOMES acronym and pointing to them on a map
4.  Identify Lake Superior and point to it on a map
5.  Point out some everyday items that are made from iron ore
6.  Explain how shipping on the Great Lakes affects their life directly
7.  Tell what a freighter is and what it does by becoming familiar with the Edmund Fitzgerald

State Grade Level Content Expectations Addressed

Social Studies
History - Living and Working Together  (Use historical thinking to understand the past.)

➢ The following GLCE relates to the first lesson.  Children learn about the sinking of the Edmund Fitzgerald by listening to a story.

K – H2.0.4 Describe ways people learn about the past (e.g., photos, artifacts, diaries, stories, videos).

Geography
The World in Spatial Terms
Use geographic representations to acquire, process, and report information from a spatial perspective.

➢ The following GLCE relates to the first lesson.  Children are exposed to maps and globes and asked to point to specific places.

K – G1.0.1 Recognize that maps and globes represent places.
Science

SCIENCE PROCESSES Inquiry Process

Inquiry Analysis and Communication

K-7 Standard S.IA: Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.

S.IA.E.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.

- The following GLCE’s relate to the second lesson. Children are asked to walk around the room and find objects that are made of iron ore. Throughout the activity, they’ll have questions and talk amongst each other. When the activity is finished, we’ll come together as a whole group and answer questions, as well as discuss other findings and observations.

S.IA.00.12 Share ideas about science through purposeful conversation.

S.IA.00.13 Communicate and present findings of observations.

Materials Needed

Lesson 1
- Large map of the world
- Inflatable beach ball globe (MEECS packet)
- Edmund Fitzgerald: Song of the Bell
- Bell of your choice (optional)
- White construction paper
- Watercolor paints with paintbrushes
- Cups of water
- Crayons

Lesson 2
- A couple of items that are made from iron ore (bookend and holepuncher)
- Magnets

New Vocabulary

- **Great Lakes**- 5 freshwater lakes consisting of Lakes Huron, Ontario, Michigan, Erie, and Superior; they all border Michigan except for Ontario; they form the largest group of freshwater lakes on Earth by total surface and volume!
- **Lake Superior**-the largest freshwater lake in the world and the deepest of the Great Lakes, also the one closest to where we live
- **Freighter**-any sort of ship or vessel that carries cargo, goods, and materials from one port to another
- **Raw material**-material in its natural or original state before it’s manufactured
- **Iron ore**-rocks and minerals that are practical sources of iron; the majority of iron ore being mined today is used in steel production
- **Edmund Fitzgerald**-the most famous Great Lakes shipwreck; had 29 crew members on board; split in two pieces and sank near Whitefish Point on November 10, 1975 during a gale (a very, very strong wind)
Focus Questions

Lesson 1
- Do you like to swim and where is your favorite swimming spot?
- Do you know the name of the largest freshwater lake in the world that we’re surrounded by?
- Have you ever seen a freighter?

Lesson 2
- What is this object and what is it made out of? (Ask this while holding up something made out of iron ore.)
- Do you know of anything else that’s made out of iron ore?

Procedure

Lesson 1
Introduce the lesson by asking children if they like to swim and where their favorite swimming spot is. Then ask if they know of a very large, freshwater lake that we’re surrounded by (Lake Superior) and give them clues about it. Maybe name a few places to swim in Lake Superior (McLain State Park, Eagle River, Great Sand Bay, Big Traverse Bay, Bete Gris, and several others). If they don’t know it yet, tell them the beginning sound of the lake. If they still don’t know it, tell them it’s Lake Superior.

Point out Lake Superior on a large map. Tell them this is the deepest of the Great Lakes and the largest freshwater lake in the world. It is the closest to us of all the Great Lakes and this will be our focus for the day, but there are 5 Great Lakes total. Point out the other great lakes and teach them the acronym HOMES to help them remember all 5. Teach them to use their hand (because they have 5 fingers) to remember all 5 (Huron, Ontario, Michigan, Erie, and Superior).

Point out the Great Lakes again on the inflatable beach ball globe. Sit in a circle and pass the ball to volunteers who would like to point out one of the Great Lakes on the globe.

Ask the children if they’ve ever seen a freighter. Tell them a freighter is a very long, large boat that carries cargo, goods, and material from one port to another. Freighters carry a variety of different raw materials, such as ore, grain, and limestone. They have probably seen freighters and/or other boats while swimming at the beach. Explain that today we’re going to learn about one special freighter that traveled on Lake Superior, the Edmund Fitzgerald.

Tell a little about the Edmund Fitzgerald, but don’t tell too much (since you don’t want to give away the story you’re about to read). The Edmund Fitzgerald was a freighter that carried ore... It was traveling on Lake Superior and weather started getting bad... Ask the children questions and see if they can predict what the book is going to be about. Remind them that the book is based on a true story.

Read Edmund Fitzgerald: Song of the Bell, by Kathy-Jo Wargin. (If you’d like, ring a bell at the beginning and end of the book. Ask the children what they think the bell resembles. Their answers at the beginning of the story will of course be different than when you ask again at the end.) Ask critical thinking types of questions (before, during, and after the story) to get the children engaged. Some questions you might ask are: What is a shipwreck? What are some of the ways that shipwrecks can be caused? Why do you think November is the worst month for shipwrecks? What would you see if you looked out the window in November? Would it be dangerous to travel by water on a stormy day? How do you think the captain was feeling during the storm? What did the bell resemble in the story? Why do you think the title of the book has the words, “song of the bell” in it? (You very well may think of other
questions to ask throughout the story.) Also, make time for the children to give predictions about what will happen next throughout the story.

Tell the children to close their eyes and imagine what a boat (any type of boat) would look like. After a minute or two, ask them what it would look like traveling on Lake Superior during a storm. Ask what colors they would see in the water and sky. Remind them to just be thinking of the answers and when they open their eyes, you can call on children to share with the class what they imagined. There will be a variety of answers as there are many kinds of boats and ideas of what one looks like. There are no wrong answers! Tell them to think back to the true story of the Edmund Fitzgerald. What was the weather like when the ship sunk? They’ll probably tell you about the high winds and big waves, etc. Discuss colors that they pictured. They might say that stormy weather makes the water and sky look black, grey, blue, purple, white, etc.

Now that their eyes are open, tell them they will draw a picture of a boat traveling on stormy waters. They should try to think back to when they closed their eyes. If they’d like to draw the Edmund Fitzgerald, they may, but they don’t have to. This project is going to be a crayon-resist drawing. So, in the morning the children will paint the water and the sky. In the afternoon, (when the paint is dry), they will draw the outline of their boat with a black crayon. Make sure each child has a large piece of white construction paper and a set of watercolor paints with a paintbrush. Remind them that they are only painting the background now, not the boat.

Later on, when the paint is dry, pass out black crayons. Tell the children to draw the outline of their boat on the water using the black crayon.

When all drawings are completed, come back together as a whole group and do Show and Tell. Call on children to show their crayon-resist drawing to the class and tell what they’ve learned about shipping on the Great Lakes. Challenge them to name as many facts about the Edmund Fitzgerald as they can. They must name at least one thing that they learned throughout the day. Make sure everyone gets a turn.

**Lesson 2**

Hold up an object that’s made out of iron ore (maybe a bookend). Ask the class what the object is. Then ask if they know what it’s made out of. Allow time for the children to guess. If they don’t know the answer, ask them if they remember what raw material the Edmund Fitzgerald was carrying. Finally, tell them it was iron ore if they don’t know.

Ask if they know what iron ore is made into. Explain that iron ore is the raw material, before it is manufactured and changed into different products (usually made into steel). In order to make products, it must be melted and shaped into parts. Give an example of something that’s made out of ore, such as a car. They would probably be surprised to find out that a good portion of a car is made from ore. The iron ore is first made into metal and then the metal is made into specific parts.

However, you should explain that there are different kinds of metal and not all kinds of metal are made from iron ore. The reason we are focusing on iron ore is that the majority of raw materials shipped on the Great Lakes in our area is iron ore. Also, the Edmund Fitzgerald was shipping iron ore and we learned about that in the first lesson.

The next activity will help children to relate the topic to their everyday lives. They’ll be able to see how shipping (iron ore) on the Great Lakes affects them. First, explain that products made from iron ore are magnetic. If you hold a magnet next to something and it doesn’t stick, the object is not made from iron ore. This is an easy way to differentiate between steel (which is made from iron ore) and other metals.
Next, give each child (or groups of children) a magnet. Tell them to walk around the room and look for things that are made from iron ore. Remember, if the magnet sticks, then the object is made from iron ore. If not, then it isn’t. After about 5 or 10 minutes, come together as a whole group and ask the children what they found. They may say a variety of examples. Here are a few: paperclips, staples, pens, teacher desk, legs on tables, file cabinet, chalkboard, whiteboard, and lockers. After discussing many examples, ask them what they learned from the activity. Ask them to picture our lives without these items. Ask if they think shipping on the Great Lakes is important and if it affects us. Everyone would probably be surprised to learn that many of the items they use in their everyday lives are made out of iron ore, which is shipped on freighters on the Great Lakes.

To wrap up the day, give a “Home Fun” assignment. Ask them to do the same activity at home that we did at school. You may want to send home magnets in case they don’t have one at home. It would also be a good idea to send home a short note to parents which describes what the assignment is and asks for their help. There’s a much better chance that the project will get done if you send a note. In the note, explain that children should go around the house with a magnet and test objects to see if they are made from iron ore. When they’re done, they should communicate their findings by drawing a picture. They should draw at least 5 items that have iron ore in them. Make sure you include in the note that the drawings should be sent back to school the next day.

On the following day, have everyone share their drawings with the class.

As a final conclusion, tell them to look out on the water the next time they’re sitting at the beach. If they see a freighter, they should think about what we learned and how shipping affects us.

Assessments
In kindergarten, the only time we assess for grades is when preparing for report cards. Most activities and assignments are exploratory and are done as a whole group. A lot of assessing is purely teacher observations and asking questions to check for understanding. Our daily goal is that children follow directions and participate by completing the task they were asked to do. If they get something wrong, we just review the concept and try again together. They’re taught to raise their hand and ask questions if they don’t understand something.

The following assessments are embedded throughout the unit. Each one is explained on the day that it is introduced.

- Teacher observations
- Answering questions during storytime (verbal participation)
- Use the inflatable beach ball to identify the Great Lakes
- Boat drawing/painting
- Show and Tell
- Findings/discussion from magnet activity
- Home fun assignment and findings/discussion