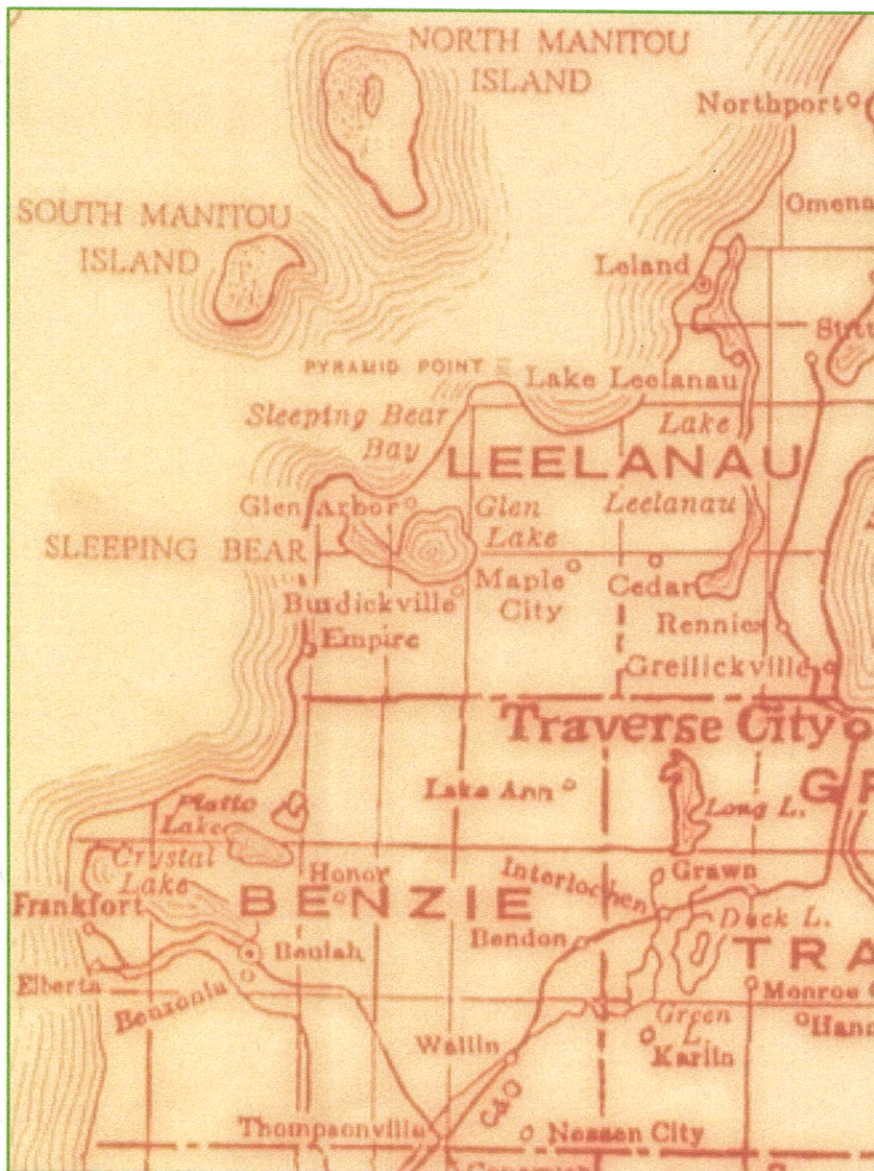


THE DAY THE GREAT LAKES DRAINED AWAY

A Revealing Exploration for Third Graders

A MODEL SOCIAL STUDIES LESSON PLAN
ED431 | STEVE POLLOCK | 12-AUG-05





THE DAY THE GREAT LAKES DRAINED AWAY A REVEALING EXPLORATION

'Now, Mother Bear can finally rest with great happiness, knowing her cubs are near. And to-day, when the world is quiet and the sun begins to set, you can still hear her voice echoing in the wind that blows across Lake Michigan.'

*'My children, as the years may pass,
and time slips through our hands,
my love will linger near the shore
and in the blowing sands.'*

*'I'll send you kisses in the wind
to let you know I'm here
sleeping near the water's edge,
I am always near.'*

*'My children, you can rest assured,
that we are not together,
and I am watching over you,
and loving you forever.'*

FROM **THE LEGEND OF SLEEPING BEAR**
WRIT. BY KATHY-JO WARGIN
ILLUS. BY GIJSBERT VAN FRANKENHUYZEN
©1998 SLEEPING BEAR PRESS | CHELSEA, MI

A MODEL SOCIAL STUDIES LESSON PLAN BY STEVE POLLOCK

for ED 431: The Teaching of Social Studies in the Elementary School

ELMAC 8B | Summer 2005

12-Aug-05

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CONSIDERING THE LEARNERS

Third graders are expected to describe characteristics that could be used to define a region; measure chronological time; use narratives and data to compare the past of their local community with present day life and many other things.

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OVERVIEW AND OBJECTIVES

This unit launches historical, geographic, economic and social inquiry into the importance of the Great Lakes to the State of Michigan.

Also in this section: **Focus Questions, Key Concepts, Lesson Brainstorms, Objectives and Relevant Standards.**

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LESSONS

Students gain the understanding that they have an impact on the physical world around them and that the democratic process can be used to shape that impact.

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THE DAY THE GREAT LAKES DRAINED AWAY

A Revealing Exploration for Third Graders

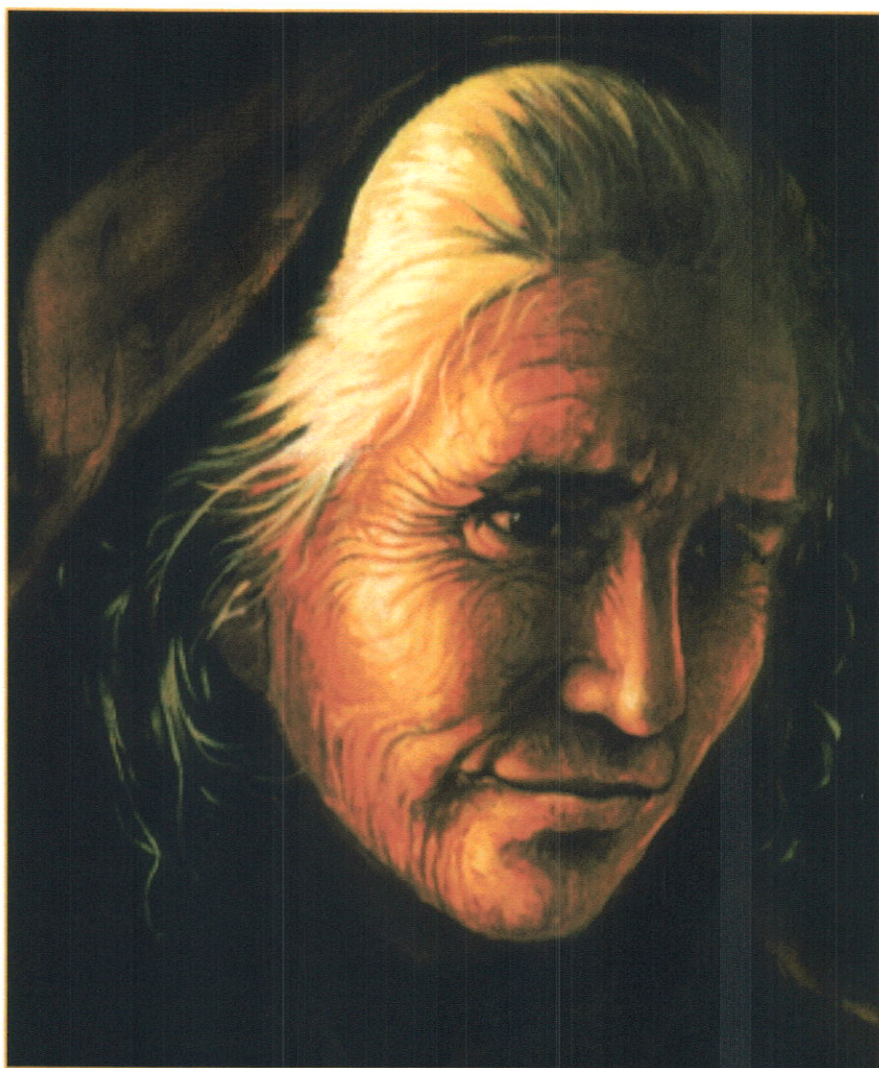
SECTION I

CONSIDERING THE LEARNERS

CONSIDERING THE LEARNERS

WHY THIS UNIT?

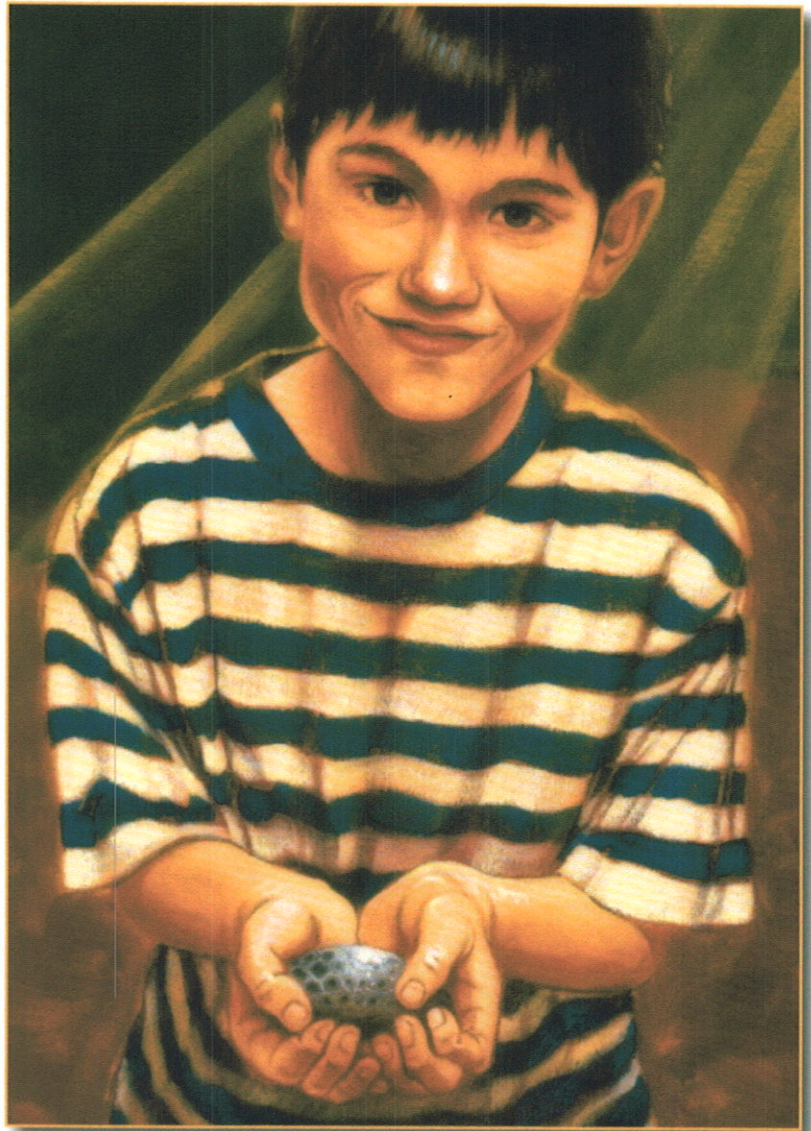
What are third graders expected to know about the region in which they live? And how can we engage them in lively and interesting ways so that they learn those things?



Considering the Learners:

Why This Unit?

Third graders in Michigan today are expected to measure chronological time; compare the past and present; describe the concept of a region and how people in that region have been influenced by and modified the environment around them through activity, especially economic; and interpret specific core democratic values and organize social studies information in order to take a stand on an issue by explaining how an issue became a problem, why people disagree about it and what should be done about it. These are very broad, comprehensive and challenging expectations, none of which are probably particularly 'fun' to the average third grader. The challenge to the teacher, therefore, is how to instill core democratic values and meet the standards society has set for the class while keeping students engaged, interested and absorbed in the process. This unit seeks to marry the somewhat dry, pedantic expectations of state social studies standards (from a third grader's point of view) with activities that are anything but dry and pedantic. Ideally, 'dry and pedantic' should be transparent while 'engaging and fun' should be noticed. Conducting inquiry, drawing on core values, conducting guided reading lessons and dealing with concepts should all be terms the teacher knows explicitly and the students get implicitly in the structure of lessons. A middle school science teacher was once overheard telling students that school was their 'job;' that school and learning wasn't supposed to be 'fun, but hard work.' This unit plan is targeted to be the antithesis of that attitude. Learning about the Great Lakes region we live in is an exciting and absorbing process.



School and learning are lifelong experiences which thread throughout human life and they can be and should be fun and engaging, not toil and drudgery.



THE DAY THE GREAT LAKES DRAINED AWAY

A Revealing Exploration for Third Graders

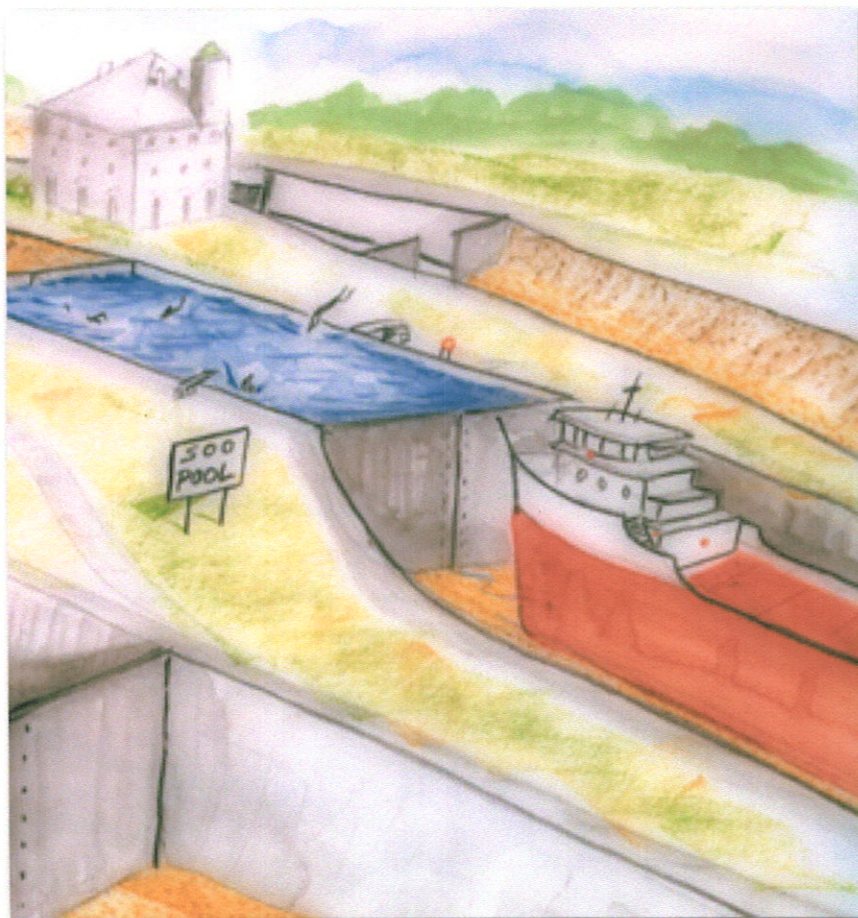
SECTION II

**OVERVIEW AND RATIONALE
KEY CONCEPTS AND FOCUS QUESTIONS
OBJECTIVES AND RELEVANT STANDARDS
LESSON BRAINSTORMS**

INTRODUCTION

DEFINING OUR REGION, DEFINING OURSELVES

Underneath the surface of the Great Lakes lies a wealth of history, legend and unseen landscapes, full of romance, mystery and tragedy. On top of the surface lies a future of great potential ... or great disaster. A central focus of this unit is to unite the Great Lakes' past, present and future, and history/legends and stories yet to be written in order to show students who they are and who they might become.

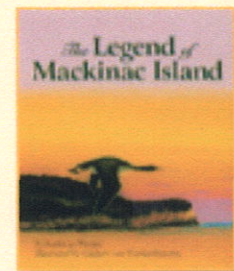
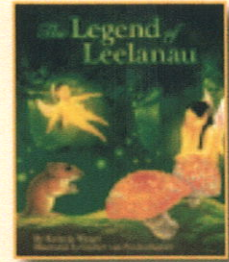
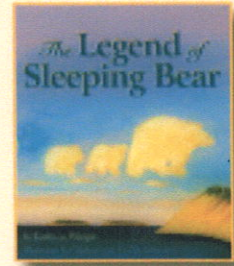


Unit Overview and Focus Questions



Overview

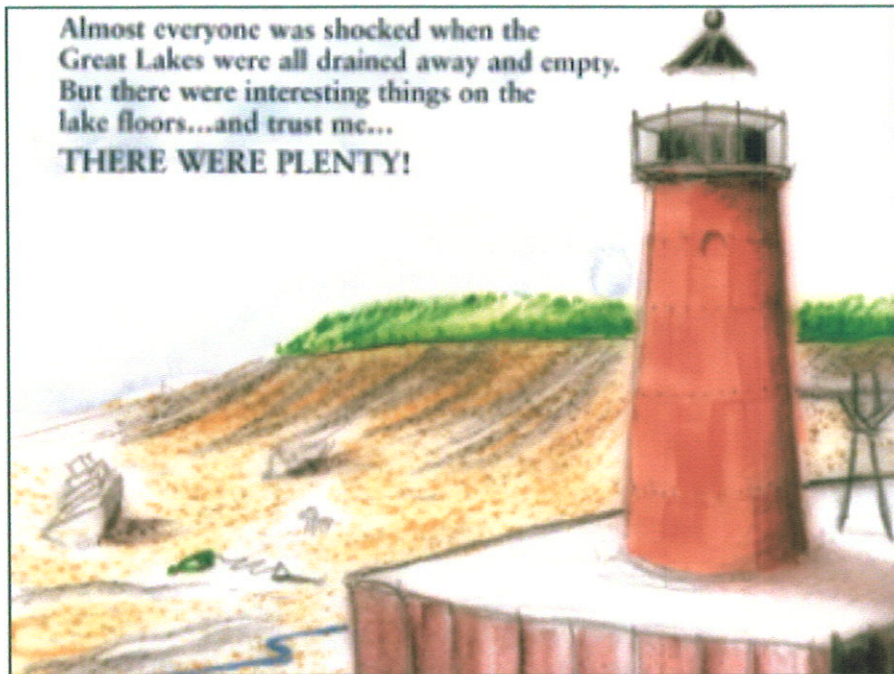
This unit uses the idea presented in the book *The Day the Great Lakes Drained Away* (which reveals the bizarre landscape that would be revealed if all the water of the Great Lakes were to suddenly disappear) to launch historical, geographic, economic and social inquiry into the importance of the Great Lakes to the State of Michigan. The unit teaches children about the geography of their region, the importance of the Great Lakes, that a world exists under all that water and that that world must be protected. The unit is introduced with concept formation lessons using maps, charts and data to understand what the Great Lakes are, where they are located and how they impact life in the state. We move on to inquiry-based learning via lessons based on readings of several of the *Sleeping Bear Press* 'Legend of ...' books, such as the *Legend of Leelanau* and the *Legend of the Petoskey Stones*. This allows children to discover how legends gave place names to geographic locations around the region, as well as the history of native tribes. We also conduct inquiry into the wreck of the *Edmund Fitzgerald*; a look at what the wreck looks like now reinforces the 'What's under all that water?' inquiry posed in the main book. Finally, we focus on value-based deliberation by projecting what the future holds for the lakes and write a letter to the governor setting a course for protection and preservation of the lakes for future generations.



Focus Questions

- What are the central characteristics of the Great Lakes region in terms of history, geography and governance?
- How would life change if the Great Lakes were to disappear?
- What should be done to prevent such a disappearance?

Unit Rationale, Activity Brainstorm and Key Concepts

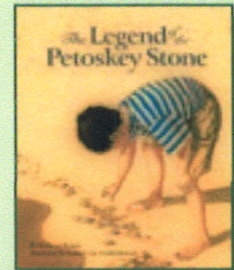
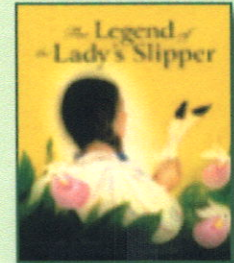
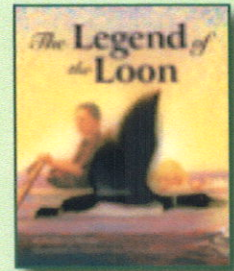


Rationale

The Day the Great Lakes Drained Away contains the following foreword from Michigan Governor Jennifer Granholm, which is probably the most succinct statement of purpose for this unit: *'It is my sincere wish that you and your children and your children's children continue to be filled with that same sense of reverence and respect, and that they be instilled with a sense of pride and commitment to protecting these rare and irreplaceable resources – the greatest of all lakes – the Great Lakes.'* Through a focus on geography, history, economics, social inquiry and democratic values, the unit is designed to have students **understand the place** that the Great Lakes holds in their lives and their state—specifically, the autos they ride to school in and products they consume and jobs they might have, and the state's history and legends, economics and environment and future. Students also will **build the foundations** of an understanding of how and why the lakes are unique, invaluable and irreplaceable and that they must be protected and that core democratic values can be used to make this happen. Through this unit, students **gain the understanding** that they have an impact on the physical world around them and that the democratic process can be used to shape that impact.

Brainstorm: Possible Activities

Write a letter to the governor about keeping the lakes safe; color outline maps of the lakes and write the names in the appropriate places; act out one of the legends; create an underwater landscape on a water table and then slowly drain the water (which has been colored with food coloring to conceal what's underneath) to see it revealed; view a scale model of the *Edmund Fitzgerald*; listen to the song *The Wreck of the Edmund Fitzgerald*; the unit might coincide with the November anniversary of that sinking and a bell could be rung 29 times.



Key Concepts

- **Map:** A symbolic representation of a portion of the earth's surface.
- **Region:** A large, usually continuous segment of a surface or space; an area of interest or activity; a sphere.
- **Lake:** A large inland body of fresh water or salt water.
- **The Great Lakes:** Superior, Huron, Michigan, Ontario, Erie.
- **Economic Activity:** The production and distribution of goods and services at all levels.
- **Legend:** An unverified story handed down from earlier times, especially one popularly believed to be historical.
- **Environment:** The combination of external physical conditions that affect and influence the growth, development, and survival of organisms.
- **Values:** A principle, standard, or quality considered worthwhile or desirable.

Unit Objectives and *Edmund Fitzgerald* Lesson Brainstorm

History

Students will distinguish between the legends of the past, the current condition of the Great Lakes and the future possibilities of the region. (Michigan Grade Level Content Expectations, History 1 and 2.)

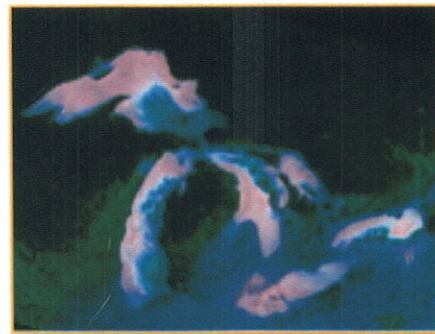


Geography and Economics

Students will identify the Great Lakes region and describe why the lakes are unique from other lakes in such ways as size, location and environmental and economic impact. (Michigan Grade Level Content Expectations, Grade Three, Geography 6.)

Students will describe a few ways in which life in Michigan is affected by the Great Lakes, such as weather patterns, economic activity, recreational life and state history. (Michigan Grade Level Content Expectations, Grade Three, Geography 4 and Economics 13.)

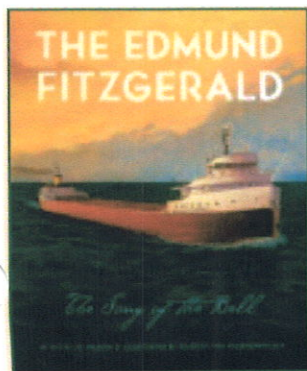
Students will describe a few ways in which humans in Michigan affect the Great Lakes through personal and economic activity. (Michigan Grade Level Content Expectations, Grade Three, Economics 13.)



Inquiry/Decision-Making and Civics/Government

Students will be able to identify the shapes of the Great Lakes on a map, **name** each lake and **distinguish** whether they are natural or man-made; they will be able to list principal economic and personal activities which use the lakes. (Michigan Grade Level Content Expectations, Grade Three, Inquiry and Decision Making 14.)

In a letter to a government official, **students will take a principled stand** on the use of water from the Great Lakes and **support that stand** with a review of history, current and data and opinion about the future, drawing upon one or more of the core democratic values. (Michigan Grade Level Content Expectations, Grade Three, Civics and Government 7 and 8 and Inquiry and Decision Making 15 and 16.)



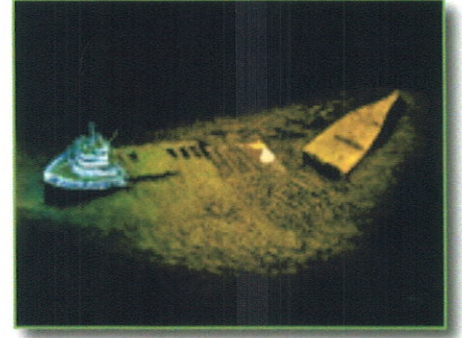
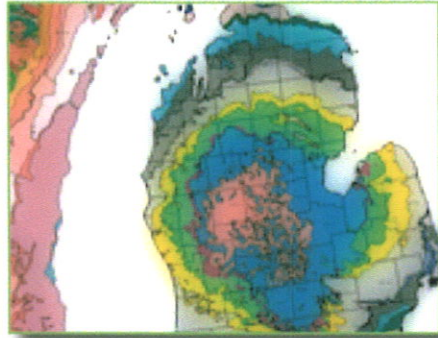
BRAINSTORM: BRIDGING LESSONS ON LEGENDS WITH ONES ON ECONOMIC ACTIVITY | One

lesson in this unit will be an inquiry-based reading of *The Edmund Fitzgerald* from Sleeping Bear Press, along with a playing of Gordon Lightfoot's *The Wreck of the Edmund Fitzgerald*. The text has prose paragraphs with rhymed couplets and dark, dramatic paintings with vividly portrayed storms. An inquiry into the 1975 sinking would also introduce the economic aspects of this unit (the *Fitzgerald* was carrying taconite pellets to make autos). This lesson would be the bridge between the practical aspects of the unit (where the lakes are, what they are named, how big they are, economic activity on them) and the legendary aspects (the *Fitzgerald* sinking is already taking on aspects of legend, particularly in the song; for instance, the song has the ship bound for Cleveland, when it was actually bound for Zug Island at Detroit).

Relevant Standards

The following standards will be used for this unit.

Michigan Social Studies Content Expectations — Grade Three



History

By the end of Grade Three, each student will be able to:

1. Measure chronological time by decades and centuries. *I.1.LE.1*
2. Use narratives and graphic data to compare the past of their local community with present day life. *I.2.LE.2*

Economics

By the end of Grade Three, each student will be able to:

13. Describe how people in a region act as producers and consumers. *IV.4.LE.2*

Geography

By the end of Grade Three, each student will be able to:

4. Explain how various people or cultures have adapted to, or modified the environment. *II.2.LE.4*
6. Describe characteristics that could be used to define a region. *II.4.EE.1*

Civics and Government

By the end of Grade Three, each student will be able to:

7. Interpret the meaning of specific rights guaranteed by the Constitution including religious liberty, free expression, and equal protection of the law. *III.2.LE.2*
8. Explain how law is used to manage conflict peacefully. *III.4.LE.2*

Inquiry and Decision Making

By the end of Grade Three, each student will be able to:

14. Organize social studies information to make simple maps, graphs, tables, and interpret what they mean. *V.1.LE.2*
15. Explain how a particular issue became a problem and why people disagree about it. *VI.1.LE.2*
16. Take a stand on a regional policy issue, support it with data, and the use of a variety of formats and/or technologies. *VI.3.LE.3*



THE DAY THE GREAT LAKES DRAINED AWAY

A Revealing Exploration for Third Graders

SECTION III

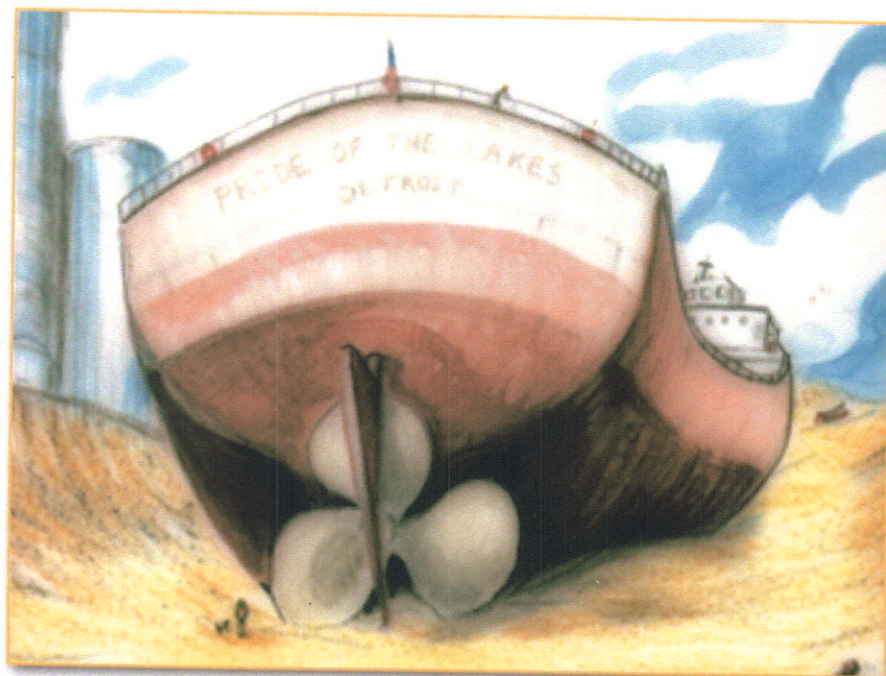
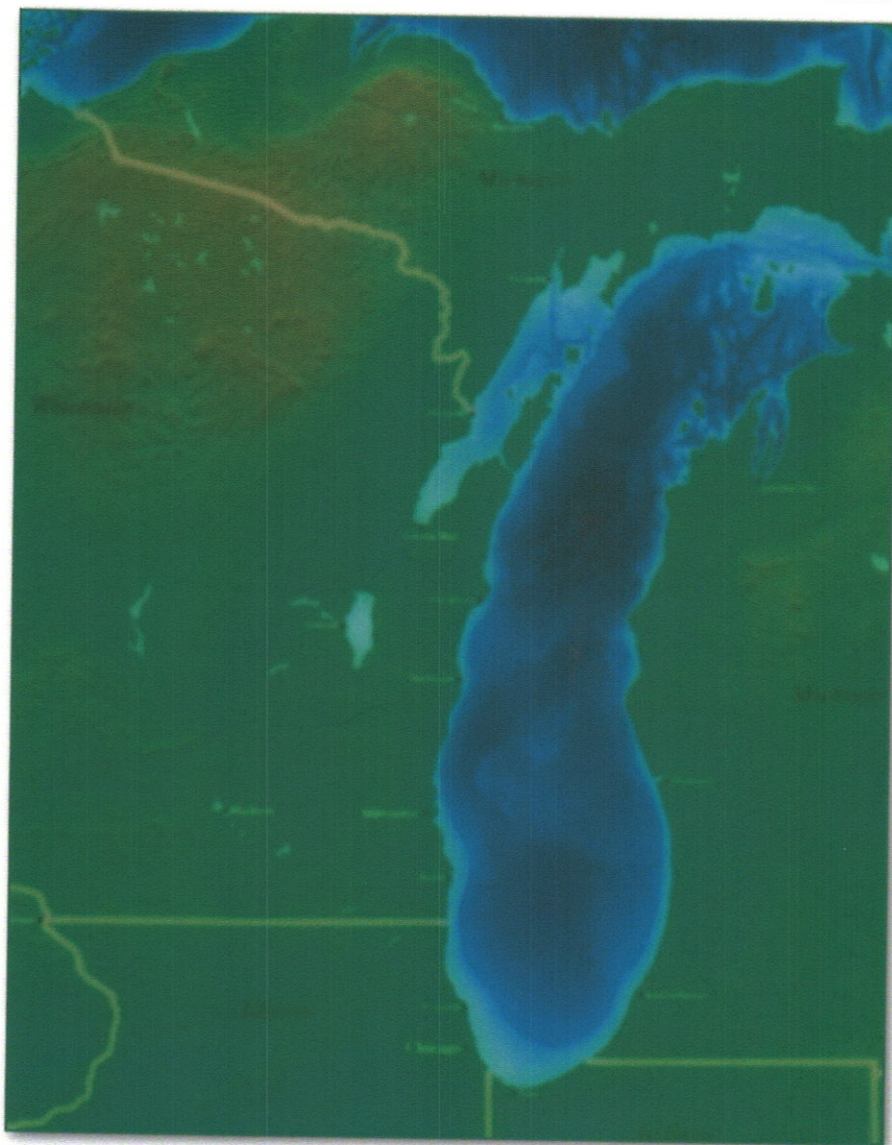
OVERVIEW OF LESSONS

LESSON CATALOG

LESSONS

TEACHING THE UNIT

Lessons begin with concept formation, flow through guided readings of Ojibwe legends, focus inquiry on the sinking of the *Edmund Fitzgerald*, pose the what-if question of what would happen if the Great Lakes drained away and end with students taking a stand on the future of the region and urging action on the part of elected officials.





LESSON CATALOG

THE GREAT LAKES: BRIDGING PAST & FUTURE

Lessons begin with the introduction of the concept 'Region,' and a look at maps of the lakes, along with an exercise to name the five Great Lakes. We proceed with history and legends and spend lessons two - eight looking at a specific legend on each day while working on producing our own legends on paper. Lesson nine concentrates on the *Edmund Fitzgerald* wreck and features an inquiry into the sinking, a playing of the Gordon Lightfoot song and a ringing of a bell 29 times to honor the crew. Lesson ten postulates what the *Fitzgerald* looks like now and leads to a broader inquiry into what is under the surface of the lakes, which will lead us to lesson eleven, concentrating on the book, *The Day the Great Lakes Drained Away*, which will also feature discussion about what could happen to the lakes in the future and what might be done to prevent a Great Drain. The penultimate lesson twelve will feature brainstorming and writing a letter to the governor, urging action for the future.

LESSONS ONE — THREE

1

GREAT LAKES, GREAT REGION

Concept Formation

Children discover what a region is; what the Great Lakes region is; they look at maps of the region; they learn to name the five Great Lakes; they color maps and write in these names; we discuss what activities and life the lakes support.

Time: 30:00/day — 2 Days

2

GREAT LAKES, GREAT LEGENDS

Concept Formation

The third and fourth days of the unit are spent discussing some of the history of the region, talking about the native tribes, especially the Ojibwe; and introducing the concept of 'legend.'

Time: 30:00/day — 2 Days

3

THE LEGEND OF THE LOON

Guided Reading

The fifth day features a guided reading lesson of the book *The Legend of the Loon* and some initial brainstorming to generate student-created legends.

Time: 45:00 — 1 Day

LESSONS FOUR — TWELVE

4

THE LEGEND OF SLEEPING BEAR

Values

The sixth day features a values-based lesson on preservation and loyalty, sparked by the book *The Legend of Sleeping Bear*, as well as work on a first draft of students' personal legends.

Time: 45:00 — 1 Day

5

THE LEGEND OF MACKINAC ISLAND

Inquiry

The seventh day is an inquiry-based lesson featuring a read-aloud of the book *The Legend of Mackinac Island*, followed by research and data-gathering to answer the question, 'What is the origin of the name Makinauk/Mackinac?'

Time: 45:00 — 1 Day

6

THE LEGEND OF LEELANAU

Guided Reading

The eighth day features a guided reading lesson of the book *The Legend of Leelanau* and editing and refinement of student legends.

Time: 45:00 — 1 Day

7

THE LEGEND OF THE LADY'S SLIPPER

Values

The ninth and tenth days feature a values-based lesson taken from the book *The Legend of the Lady's Slipper*; students research why the Lady's Slipper is the state flower and take a stand on whether it should continue to be or whether something different should be chosen.

Time: 45:00/day — 2 Days

8

THE LEGEND OF THE PETOSKEY STONE

Inquiry

The eleventh day features an inquiry-based lesson centered on the book *The Legend of the Petoskey Stones*. Students collect data on the question, 'Why is the Petoskey Stone our state stone?'

Time: 45:00 — 1 Day

9

CREATING OUR OWN IDENTITY

Concept Formation

The twelfth and thirteenth days center on refinement, completion and illustration of student legends. Each student presents his/her legend in front of the class.

Time: 45:00/day — 2 Days

10

SONG OF THE BELL

Inquiry

The fourteenth-sixteenth days feature a one-hour video on the *Edmund Fitzgerald* which discusses theories for the sinking and a look at wreck-diving and speculation on the geography and interesting things under the surface of the lakes. This inquiry-based lesson attempts to answer the question, 'What caused the sinking of the *Edmund Fitzgerald*?' The video will be shown over two days, with 15 minutes left over for discussion and data synthesis each day.

Time: 45:00/day — 3 Days

11

THE GREAT DRAIN

Guided Reading

The seventeenth-eighteenth days feature a guided reading lesson of the book *The Day the Great Lakes Drained Away* and group discussion about reasons; students also discuss the chances of a drain happening and how to prevent it. Students get the opportunity to see a drain reveal a hidden landscape via a prepared water table which is drained in class.

Time: 45:00/day — 2 Days

12

ACTION PROJECT

Values

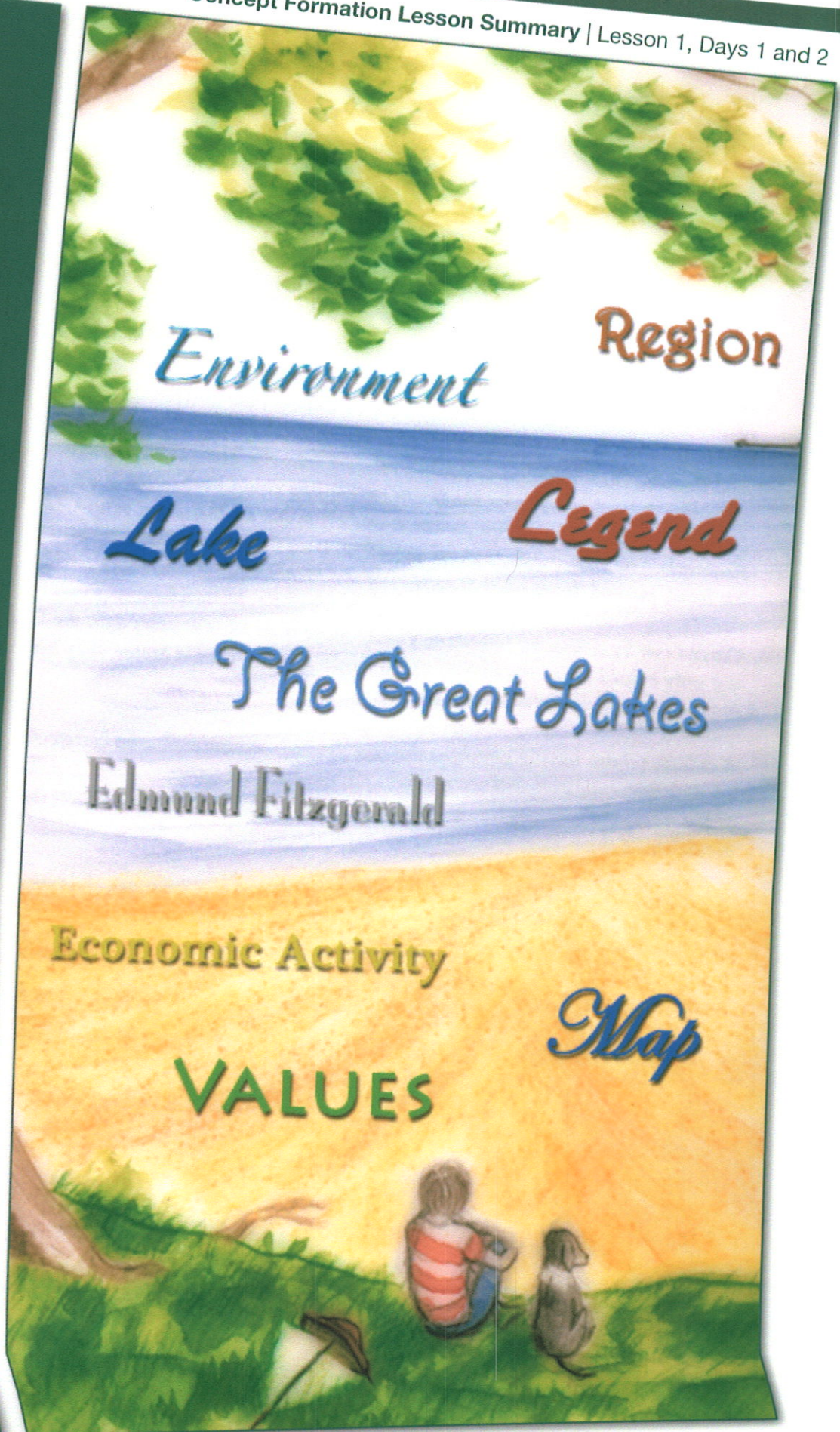
Days nineteen and twenty are all about work on our letter to the governor: brainstorming ideas, sharing drafts, editing a final version and mailing that final version.

Time: 45:00/day — 2 Days

LESSON 1: GREAT LAKES, GREAT REGION

CONCEPT FORMATION

The purpose of this initial lesson is to introduce the unit, define key concepts, set expectations for students and communicate standards for success.



Summary

The first lesson of the unit is the all-important introduction/scaffolding of what students will be doing over the next few weeks. It takes place over two days. Children discover what a region is; what the Great Lakes region is; they look at maps of the region; they learn to name the five Great Lakes; they color maps and write in these names; the class discusses what activities and life the lakes support.

Over 30 minutes on the first day, tell students the name of the unit, be shown the books they will be reading, and discuss the key concepts that will be used throughout the unit (see sidebar). Set student expectations by discussing what formal assessments will be taken and what successful completion of the unit will entail.

On the second day for another half-hour, give students the opportunity to color maps of the region and label place names, including the lakes themselves, states around them, and important cities and landmarks. The discussion about the importance of the lakes and how they support life in the region should follow this activity.

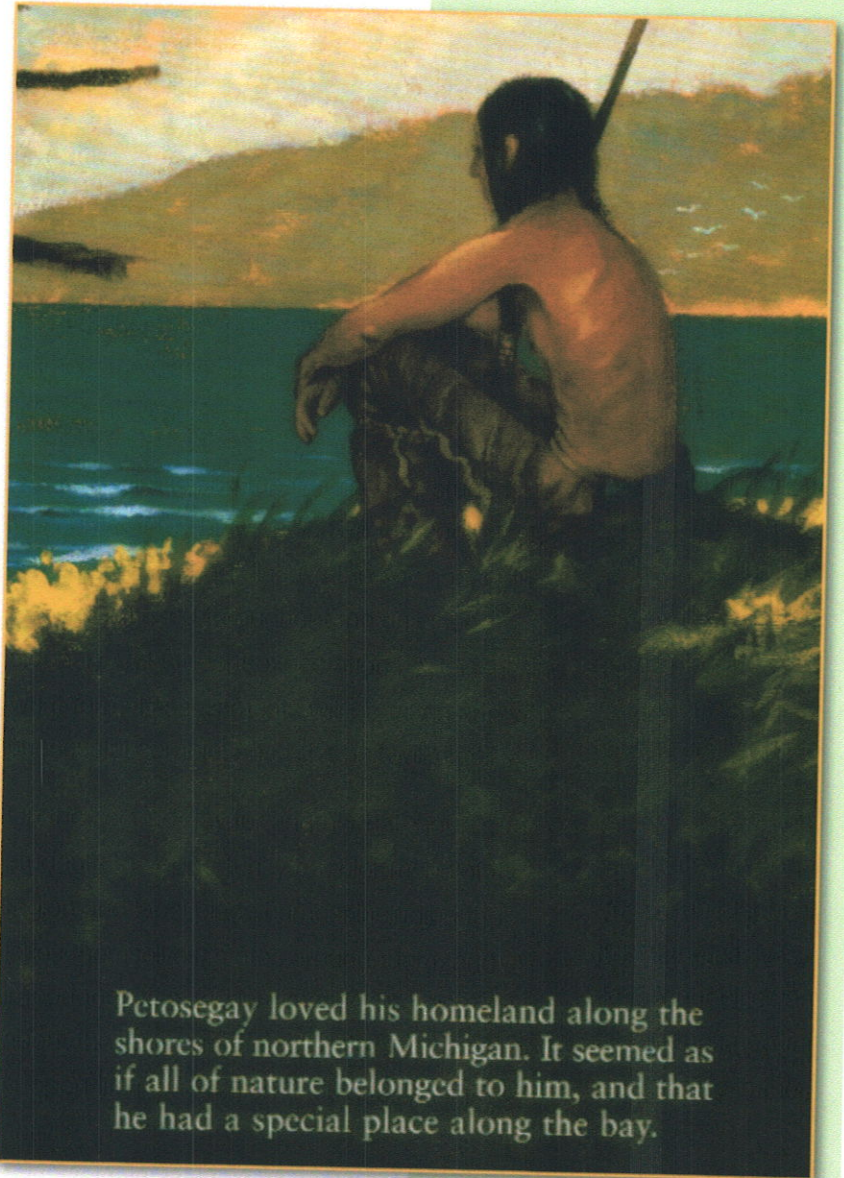
RESOURCES

Map outlines of the region; colored map pencils, markers and/or crayons; dictionary definitions; possible access to a computer for students to look up definitions of key concepts and place names for creating their maps.

ASSESSMENT

Formal assessment is made of students' completed maps to ensure understanding of proper place of cities, states and lakes.

Informal assessment is made through questioning for understanding of key concepts and probing for background knowledge.



Petosegay loved his homeland along the shores of northern Michigan. It seemed as if all of nature belonged to him, and that he had a special place along the bay.

Key Concepts

- Map
- Region
- Lake
- The Great Lakes: Superior, Huron,
- Michigan, Ontario, Erie
- Economic Activity
- Legend
- Environment
- Values

Timing

30 minutes/day | 2 days

LESSON 2: WHAT IS A LEGEND?

CONCEPT FORMATION

The purpose of this initial lesson is to introduce the unit, define key concepts, set expectations for students and communicate standards for success.

The Princess began to give birth to the baby as the chief waited nearby. Hours passed and the stars dimmed. The moon began to fade and the night animals became quiet. But then as it became almost silent, only moments before the sun was ready to rise, the joyous cry of a newborn child filled the woods and echoed over the water.



Concept Formation Lesson Plan | Lesson 2, Days 3 and 4

Unit of Study: What is a Legend?



Abstract

This concept formation lesson takes place over two days and is Lesson Two of the overall unit. The lesson begins with students dividing into small groups or partnerships and writing on sticky notes what they think the definition of a legend is; a group representative then goes up to place the definition on the board. The teacher then gives definitions of what a legend is and follows up with two examples, *The Story of the Pet Crane* and *The Story of the Pet Crow*, from a website on Sioux tribal legends. The teacher gives two non-examples, one from the present day (a newspaper article on the discovery of a 10th planet) and one from the future (an excerpt from a futuristic science fiction book). When the class correctly identifies examples/non-examples, the teacher introduces the seven Sleeping Bear Press *Legend of ...* books and builds anticipation for reading them over the next several class sessions. The teacher then explains that the class will be creating its own legends over the next few weeks and breaks the class back up into small groups so students can begin to brainstorm ideas for this. While in small groups, students are also asked to revise their definitions of what legends are for posting on the board. Finally, a short, 10-question quiz will be given for students to classify examples and non-examples of legends.

Objectives

Students will explain what a legend is and be able to distinguish between examples and non-examples of legends. (*Michigan Grade Level Content Expectations, Grade Three, History 1 and 2.*)

Key Concept

Legend

leg-end | n.

1. An unverified story handed down from earlier times, especially one popularly believed to be historical.
2. A body or collection of such stories.
3. A romanticized or popularized myth of modern times.

— Dictionary.com

'A legend (Latin, *legenda*, "things to be read") is a narrative of human actions that are perceived both by teller and listeners to take place within human history and to possess certain qualities that give the tale verisimilitude. ... Legend may be transmitted orally, passed on person-to-person, or, in the original sense, through written text.'

— Wikipedia

'As the Indians sadly left the hill to return home, they heard a noise at the top of the tepee, and looking up they saw the crow sitting on one of the splintered tepee poles. He was crying most pitifully, and as they rode off he flew up high in the air and his pitiful "caw" became fainter and fainter till at they heard it no more. And from that day, the story goes, no crow ever goes near the village of that band of Indians.'

— Sioux: 'The Story of the Pet Crow'

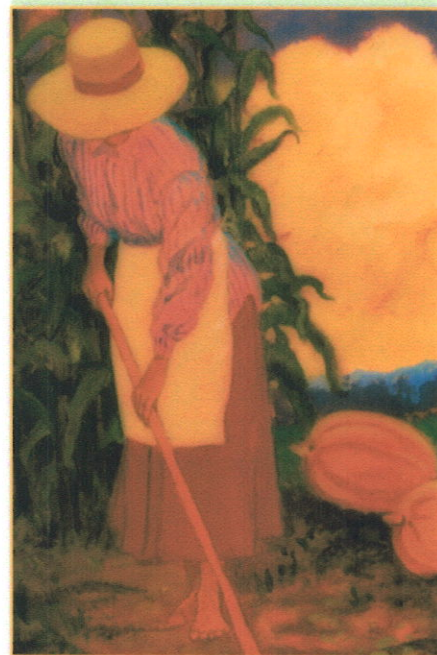
Sequence of Activities

1. 'What is a *legend*?' On **day one** of this lesson, introduce the concept by first testing for background knowledge: ask for student definitions. Break the class into small groups or partnerships; give each group a sticky note. A representative from each group writes that group's definition of what they think a legend is on the sticky. After a few minutes, bring the class back together and have the group reps post the stickies in a 'before' column on the board. Read through the definitions aloud.
2. Give the dictionary definition of what a legend is, and enhance that definition with more details from Wikipedia. Explain that legends took place in the past, not the present or the future. Ask for examples of legends from students.
3. Provide examples of legends, specifically *The Story of the Pet Crow* and *The Story of the Pet Crane* from the Sioux legends website (don't read the whole legend, just highlight details and summarize). Discuss non-examples of legends, giving two non-examples, one from the present day (a newspaper article on the discovery of a 10th planet) and one from the future (an excerpt from *The Quiet Invasion*, a futuristic science fiction book). Keep highlighting the key attributes of the concept: that legends take place in the past, were or are believed to be historical, often are told as explanations for how something came to be and that have been handed down orally until someone wrote them down.
4. Introduce the seven Sleeping Bear Press *The Legend of ...* books, including the *Edmund Fitzgerald* book. Explain that the class will be reading one of these books each day over seven days; name each book and give a very brief synopsis of them. Differentiate between the six Ojibwe legend books and the *Fitzgerald* book by explaining that the shipwreck book is about a historical event but that certain aspects of that event have become legendary. This part will need careful explanation and discussion to test whether students understand how this is possible. Finish this introduction by announcing that each student will be creating his/her own legend during these few days.
5. On **day two**: Break the class back up into small groups or partnerships and give them two tasks: Number one, refine their original definitions of what legends are on a new sticky note; and number two, begin to brainstorm ideas for their own legends. Have each student give an idea and the other student(s) in the group discuss it and possibly enhance it with ideas of their own.
6. Bring the class back together and have group representatives post their stickies with the revised definitions on the board. Discuss how the definitions have changed since the beginning of the lesson and why.
7. Ask students for some of their brainstorming ideas for their own legends. Allow the whole class to suggest additional ideas for those who don't have an idea or whose ideas need extra help.
8. Give a 10-question quiz on legends. Each question should be an example or non-example of a legend and the students' task will be to decide if the passage is or is not an example of a legend. One suggestion: Five questions would have passages from the *Legend of ...* books which can be classified as legends; the other five would have passages from news articles or science fiction stories which can be classified as non-legends. Have students exchange quizzes with a partner for grading.
9. End the lesson by re-stating what a legend is and is not and discuss what the next lesson will be: a guided reading of *The Legend of Mackinac Island* followed by more brainstorming of their own legends.

Assessment

Informal Observation of small group or partner discussion of what legends are; reading what small groups/partners post on the board with before-lesson and after-lesson definitions of 'legend.'

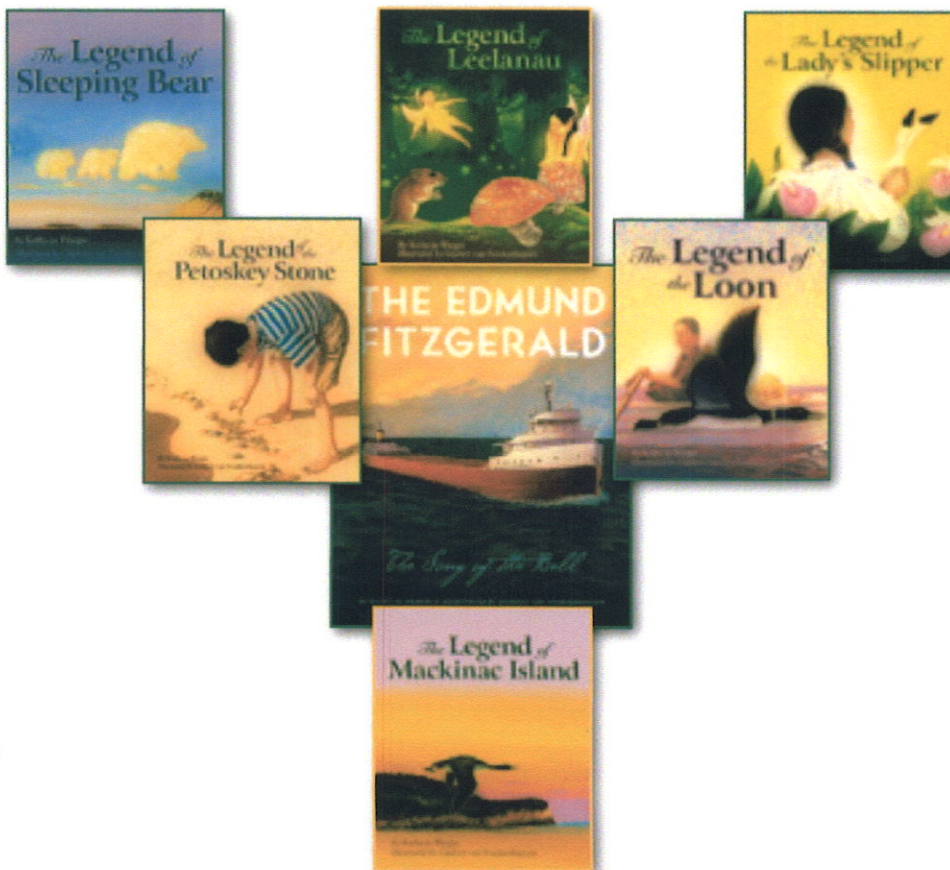
Formal Formal assessment is made on day four | lesson two of the unit with a short, 10-question quiz where students classify examples and non-examples of legends; a final assessment is made on day eleven | lesson eight of the unit, when students share their completed, made-up legends with the whole class.



Instructional Resources

Books

- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2003). *The Edmund Fitzgerald: Song of the Bell*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2003). *The Legend of Leelanau*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (1999). *The Legend of Mackinac Island*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (1998). *The Legend of Sleeping Bear*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2001). *The Legend of the Lady's Slipper*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2000). *The Legend of the Loon*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2004). *The Legend of the Petoskey Stones*. Chelsea, MI: Sleeping Bear Press.



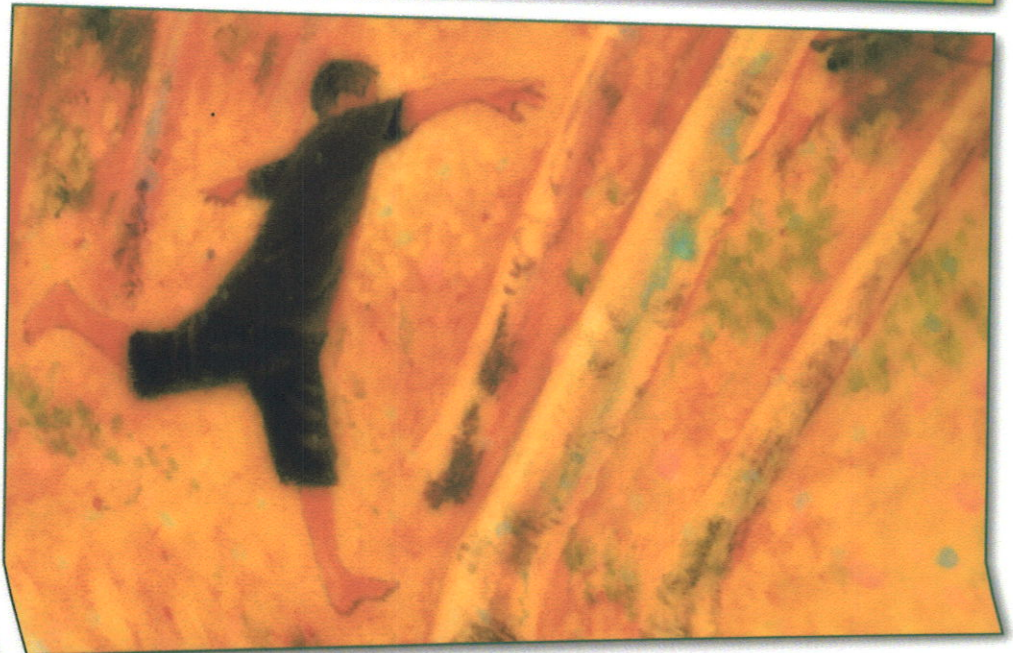
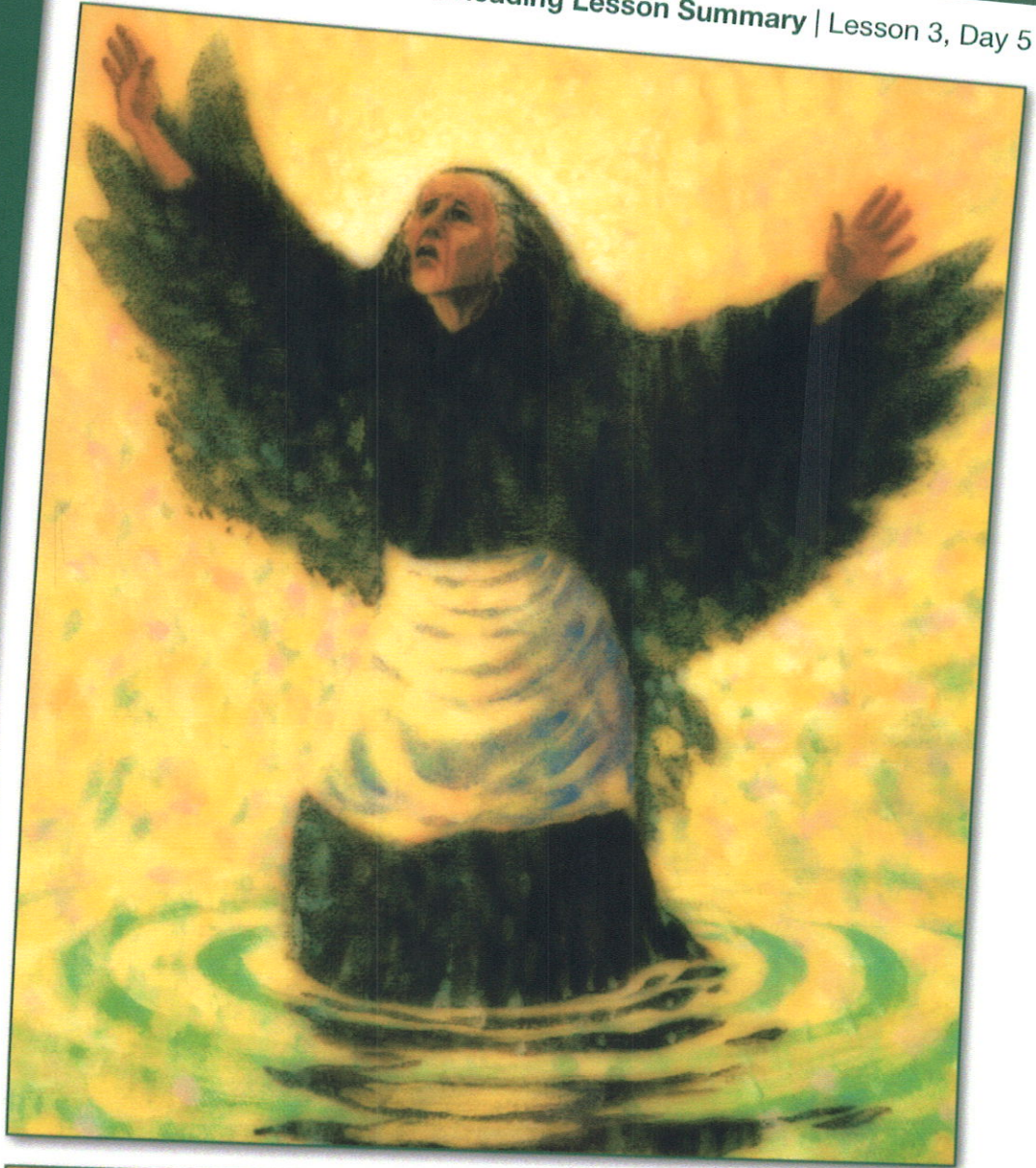
Websites

- Legend: Definition. (2005). Retrieved July 29 from <http://dictionary.reference.com/search?q=legend>
- Legend. (2005). Retrieved July 29 from <http://en.wikipedia.org/wiki/Legend>
- Folklore, Myth and Legend. (1998). Retrieved July 29 from <http://www.acs.ualgary.ca/~dkbrown/storfolk.html>
- Myths and Legends of the Sioux. (Undated) Retrieved July 29 from <http://etext.lib.virginia.edu/toc/modeng/public/McIMyth.html>
- The Story of the Pet Crane. (Undated) Retrieved July 29 from <http://etext.lib.virginia.edu/etcbin/toccer-new2?id=MclMyth.sgm&images=images/modeng&data=/texts/english/modeng/parsed&tag=public&part=34&division=div1>
- The Story of the Pet Crow. (Undated) Retrieved July 29 from <http://etext.lib.virginia.edu/etcbin/toccer-new2?id=MclMyth.sgm&images=images/modeng&data=/texts/english/modeng/parsed&tag=public&part=31&division=div1>
- 10th Solar System Planet Found. (2005) Retrieved July 30 from <http://www.miami.com/mld/miamiherald/12261083.htm>
- The Quiet Invasion. (2005) Retrieved July 30 from <http://www.sfsite.com/02a/qja74.htm>

LESSON 3: THE LEGEND OF THE LOON

GUIDED READING

The purpose of this first guided reading is to explore the book *The Legend of the Loon* and to begin to think about student-created legends.



Summary

The third lesson of the unit is the first of several guided reading lessons. On day 5, introduce the Sleeping Bear Press book *The Legend of the Loon*. Spend about 5 minutes introducing the book, paying particular attention to how the illustrations support the text, particularly in providing students with opportunities to problem-solve difficult or unfamiliar words.

Allow students to whisper read the entire book to themselves for 20 minutes while walking around listening and asking quiet questions to probe for understanding and background knowledge.

When students are finished with the book, bring them back together and discuss the story for another 5 minutes. Make sure students connect the story with the previous lesson's concept of 'legend;' does this story contain the critical attributes of that concept?

For the final 15 minutes of the day, introduce the threaded task which will occupy the next several lessons: student-created legends. Explain that students will work on writing their own legends and give them time to brainstorm ideas individually or in small groups.

RESOURCES

Student journals for brainstorming and the book:

- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2000). *The Legend of the Loon*. Chelsea, MI: Sleeping Bear Press.

ASSESSMENT

Informal assessment is made through questioning for understanding of the story's plot points and probing for background knowledge during whisper reading.



Key Concepts

- GRANDMOTHER
- LOON

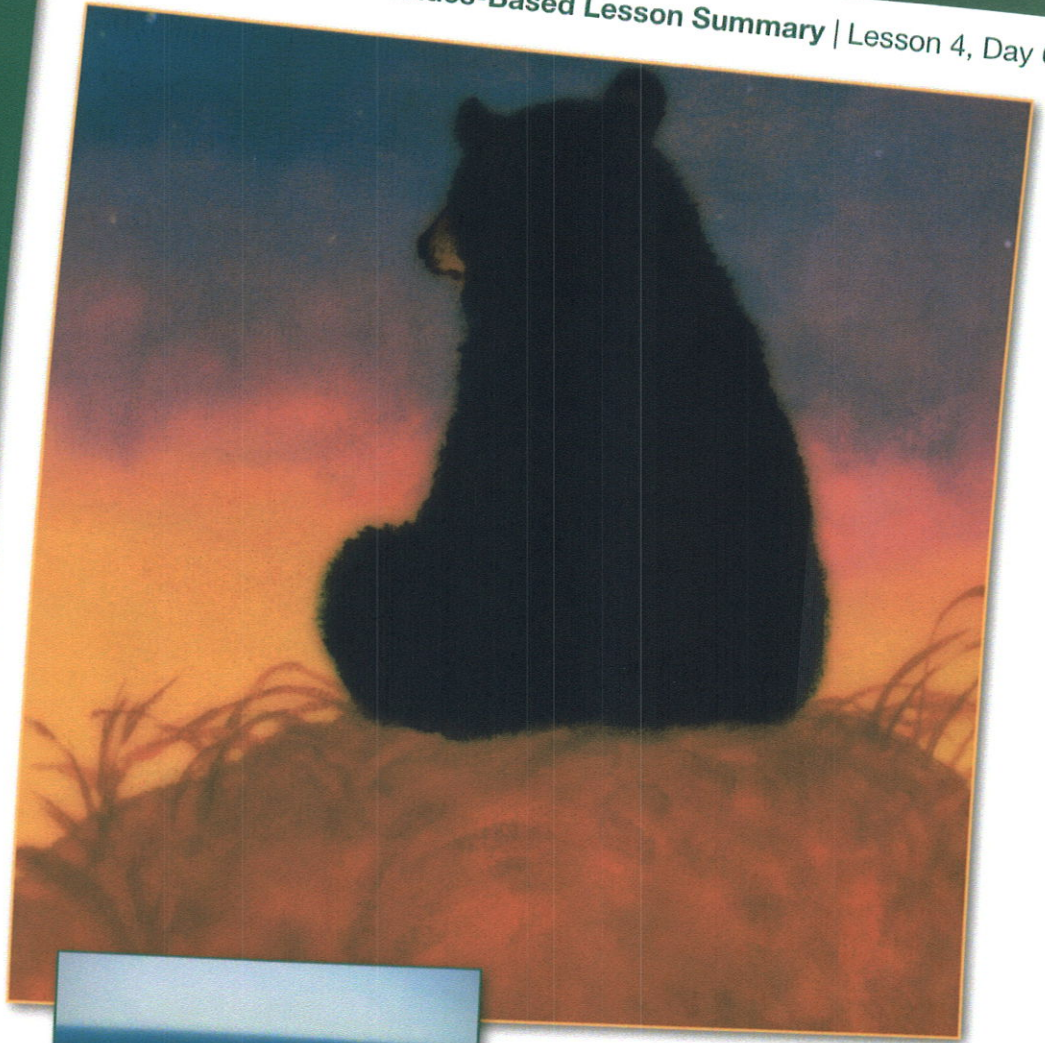
Timing

45 minutes | 1 day

LESSON 4: THE LEGEND OF SLEEPING BEAR

VALUES

The purpose of this initial values-based lesson is to discuss the loyalty of a mother bear to her cubs and how the memory of that legend is honored in Sleeping Bear Dunes State Park. This will lead to a discussion of the importance of preservation of an important part of the Great Lakes.



BAYLEY BEAGLE AT PYRAMID POINT,
SLEEPING BEAR DUNES, SEPT. 2003



Summary

The fourth lesson of the unit is the first of several values-based lessons. On day 6, introduce the Sleeping Bear Press book *The Legend of Sleeping Bear*. Spend about 5 minutes introducing the book, then about 10 minutes reading the book aloud while students sit on the rug or around the room. The book is a powerful (and sad) legend, so allow time for questions and be prepared to address the concept of death. Introduce the key concepts of preservation and loyalty by defining them.

For the next 15 minutes, discuss whether or not the Sleeping Bear Dunes site should continue to be preserved or opened for development or further recreational use. Particularly focus on core fundamental beliefs of pursuit of happiness and the common good and how those two beliefs can collide. Small group breakout sessions might be good for this.

For the final 15 minutes, have students work in their journals, again individually or in small groups, on further developing their personal legends; make a requirement of today's brainstorming the inclusion of loyalty and preservation as story elements.

RESOURCES

Student journals for further legend brainstorming and the book:

- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (1998). *The Legend of Sleeping Bear*. Chelsea, MI: Sleeping Bear Press.

ASSESSMENT

Informal assessment is made by making sure everyone understands the key concepts and can translate them into personal values; assessment of student legend brainstorming should reveal the beginnings of 'taking a stand on a value.'



Key Concepts

- PRESERVATION
- LOYALTY

Timing

45 minutes | 1 day

LESSON 5: THE LEGEND OF MACKINAC ISLAND

INQUIRY

The purpose of this initial inquiry-based lesson is to pose the question, *'What is the origin of the name Mackinac/Makinauk?'*



*"I shall give to you, a special home
upon my weathered back
where rivers run beneath the sun
in red and gold and black.*

*To rest upon the water blue,
a land so new, a land so new."*

Summary

The fifth lesson of the unit is the first of several inquiry-based lessons. On day 6, introduce the Sleeping Bear Press book *The Legend of Mackinac Island*. Spend about 5 minutes introducing the book, then about 10 minutes reading the book aloud while students sit on the rug or around the room. Following the read-aloud, post the inquiry for the day on the board: 'What is the origin of the name Mackinac/ Makinauk?'

For the next 25 minutes, allow students to conduct research, particularly on the web. Since this might be the first inquiry-based research/data-gathering activity of the year, allow students to work in partnerships or small groups. Have them conduct the data-gathering separately and quietly, then share their findings in the final five minutes of class time by writing their findings on the black board. Make sure the class reaches consensus with a final statement on the origins based on all the data gathered. Each group's work is graded for formal assessment.

RESOURCES

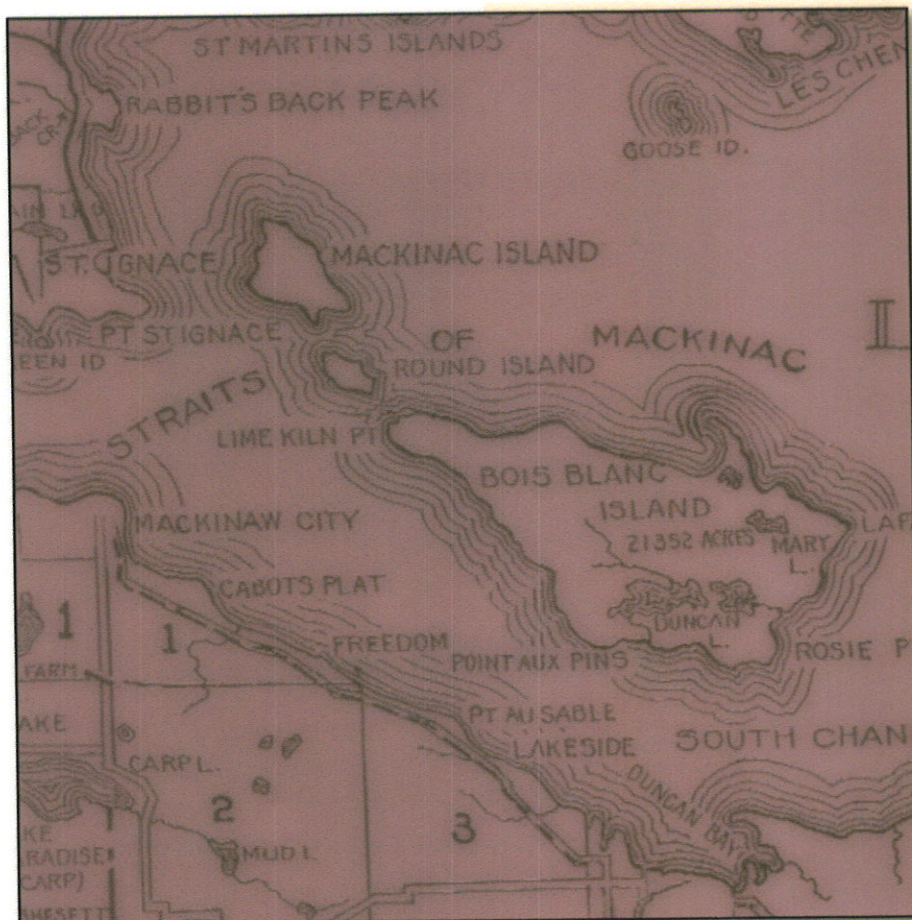
Web research access, encyclopedias and other research tools and the book:

- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (1999). *The Legend of Mackinac Island*. Chelsea, MI: Sleeping Bear Press.

ASSESSMENT

Informal assessment is made by making sure everyone understands the key concepts and works in partnership to conduct the data-gathering; each partnership is assessed on how they work together and on their final conclusion.

Formal assessment is made of the group's data and conclusion, which must be written and turned in on paper in short essay form.



Key Concepts

- RESEARCH
- INQUIRY

Timing

45 minutes | 1 day

LESSON 6: THE LEGEND OF LEELANAU

GUIDED READING

The purpose of this lesson is to explore the characters of the book *The Legend of Leelanau* by acting out the action in the story, paying particular attention to the final words of the book, 'They understood that childhood was like the laughter of fairies, filling your heart with the sound of a million bells, and that as fast as it comes, it's gone.'



Summary

The sixth lesson of the unit features another guided reading lesson. On day 8, introduce the Sleeping Bear Press book *The Legend of Leelanau*. Spend about 5 minutes introducing the book, focusing students' attention on Leelanau's dilemma and asking for predictions about what she might decide to do by the end of the book.

For the next 15 minutes, conduct the reading as if it were a play; choose several students to be narrators who take turns reading the bulk of the story, while other students supply voices of characters. Encourage the characters to act out their parts and supply props such as silver bells. Consider darkening the room and handing out miniature flashlights (although this will need plenty of scaffolding; it could brew plenty of trouble).

For the next 10 minutes, discuss the story, particularly what 'fleeting childhood' means. Make sure they understand the geographical term 'peninsula' and can locate the Leelanau peninsula on a map.

For the final 15 minutes of class, allow students to work on further refining and expanding their personal legend stories.

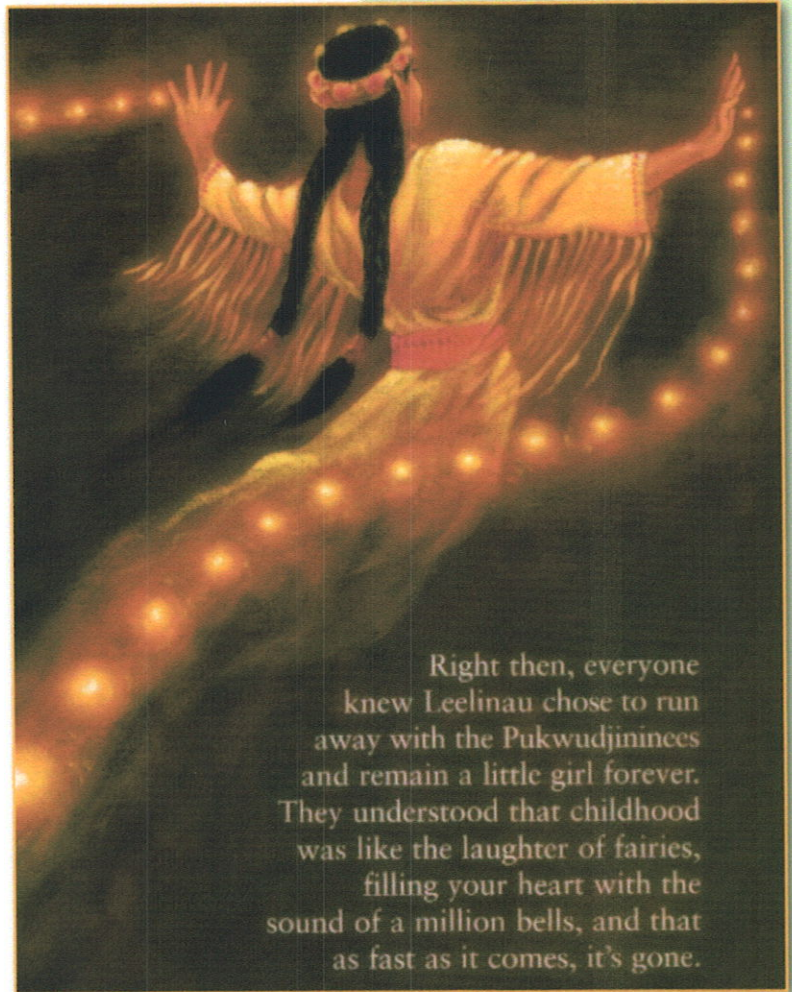
RESOURCES

Student journals for personal legend work; maps; bells; flashlights and the book:

- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2003). *The Legend of Leelanau*. Chelsea, MI: Sleeping Bear Press.

ASSESSMENT

Informal assessment is made through observation of the play-acting of the book and ensuring that all students are participating.



Key Concepts

- CHILDHOOD
- PENINSULA

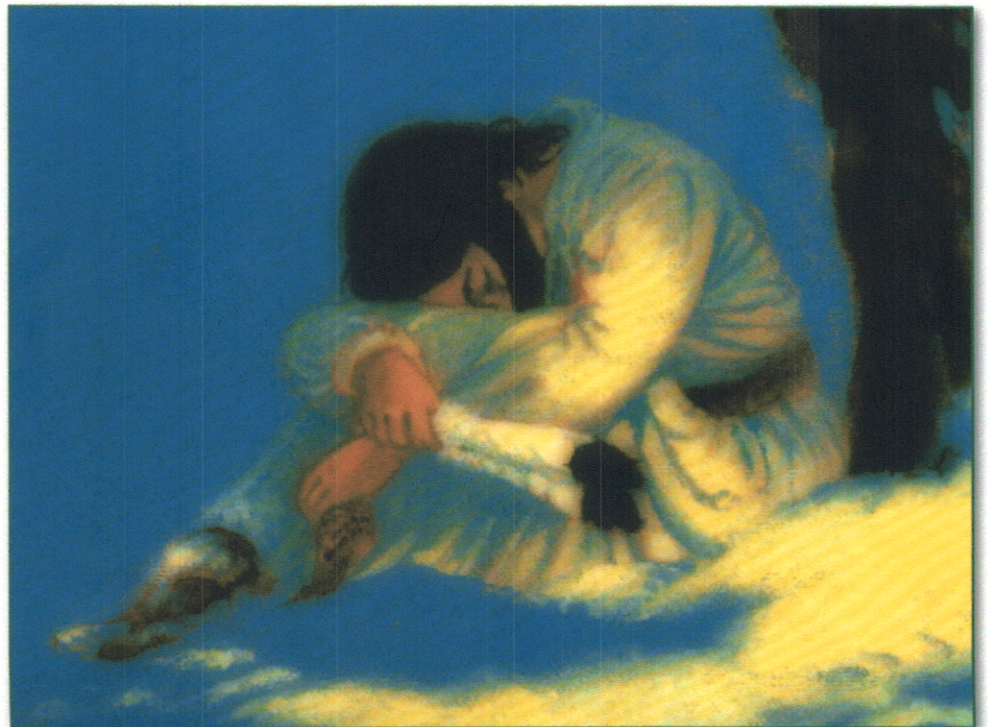
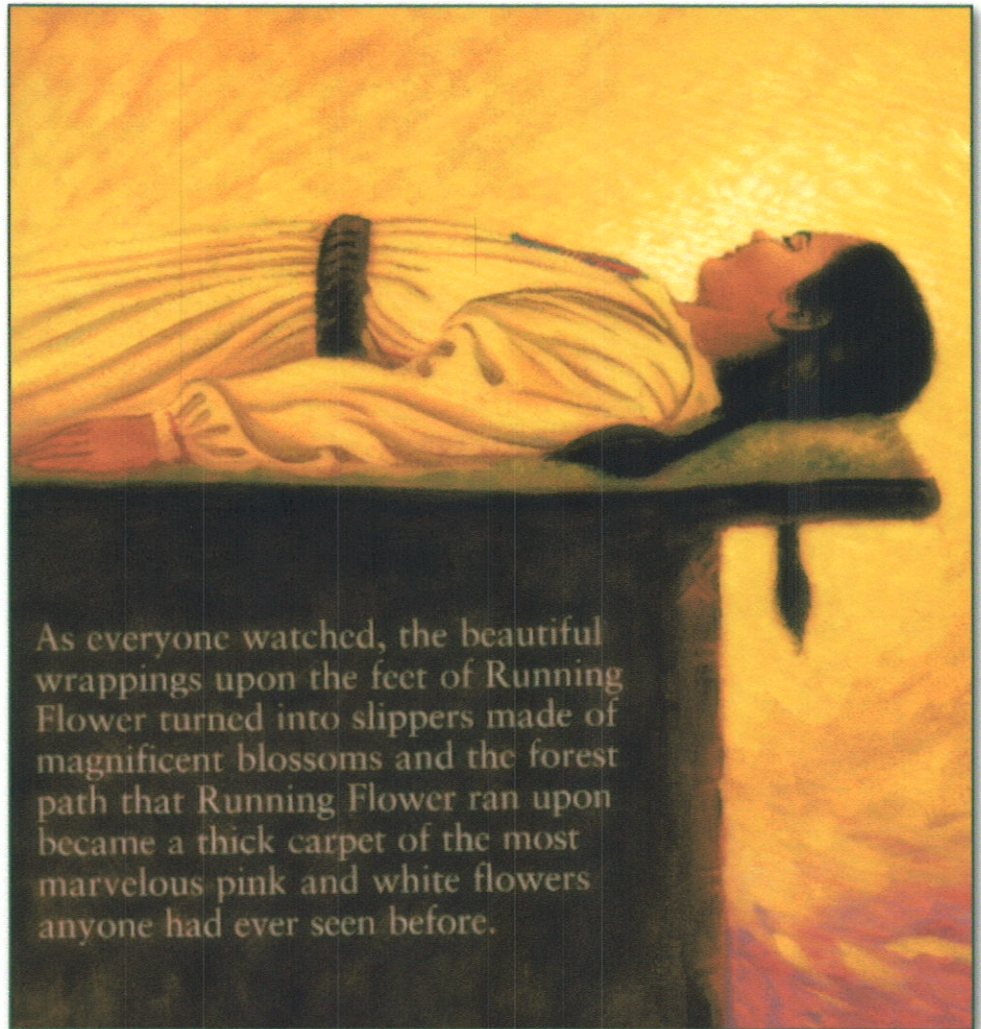
Timing

45 minutes | 1 day

LESSON 7: THE LEGEND OF THE LADY'S SLIPPER

VALUES

The purpose of this lesson is to use the book *The Legend of the Lady's Slipper* as a springboard to discussion about the state flower of Michigan and whether or not Official State anything's are a good idea, as well as whether the Lady Slipper should continue to be the state flower.



Summary

The seventh lesson of the unit features another values-based lesson. On the first of this lesson's two days, introduce the Sleeping Bear Press book *The Legend of the Lady's Slipper*. Spend about 5 minutes introducing the book, focusing students' attention on the flower itself and asking for predictions about why this legend might be important.

For the next 15 minutes, have students read in whisper voice. Assess understanding by walking around and listening to their reading, asking questions to probe for understanding.

For the next 5 minutes, discuss the story and ask the students why Official State Symbols are chosen. Tell the students they will be deciding whether choosing an official state flower is good or not; and if so, whether the state flower should continue to be the Lady's Slipper. For students who believe state symbols are not good things, tell them they will be supporting that opinion with research.

For the final 20 minutes of the first day, have students conduct research into state symbols in general and the Lady's Slipper in particular. Have them brainstorm ideas for what position they will take on the issue.

On day two, have students spend the first 20 minutes wrapping up their research, followed by 25 minutes of writing their position and supporting it with evidence they've gathered in an essay paper, which will be graded. Gather these papers at the end of the lesson.

RESOURCES

Encyclopedias, factbooks, internet research tools and the book:

- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2001). *The Legend of the Lady's Slipper*. Chelsea, MI: Sleeping Bear Press.

ASSESSMENT

Informal assessment is made via observation of the research-gathering process.

Formal assessment will be made by grading the essays handed in based on whether the student took a position and supported it adequately with research.



Key Concepts

- STATE
- STATE SYMBOLS

Timing

45 minutes/day | 2 days

LESSON 8: THE LEGEND OF THE PETOSKEY STONE

INQUIRY

The purpose of this inquiry-based lesson is to use the book *The Legend of the Petoskey Stone* to research the question, 'Why was the Petoskey Stone chosen as a state symbol of Michigan?'



Summary

The eighth lesson of the unit asks the question, 'Why was the Petoskey Stone chosen as a state symbol?' Introduce the Sleeping Bear Press book *The Legend of the Petoskey Stone*. Spend about 5 minutes introducing the book, focusing students' attention on the stone and what it looks like. If available, have an actual Petoskey Stone to pass around.

For the next 15 minutes, read the book aloud to students, pausing for questions to assess understanding, make predictions about the text and talk about unfamiliar words or place names. Show students where Petoskey is on a map.

For the next 5 minutes, discuss the story and ask the students for guesses about why the Petoskey was chosen State Stone. Tell the students they will be conducting research to find this out.

For the final 20 minutes of this, have students conduct research in pairs using available classroom resources. Have them gather data, then present their findings to the whole group.

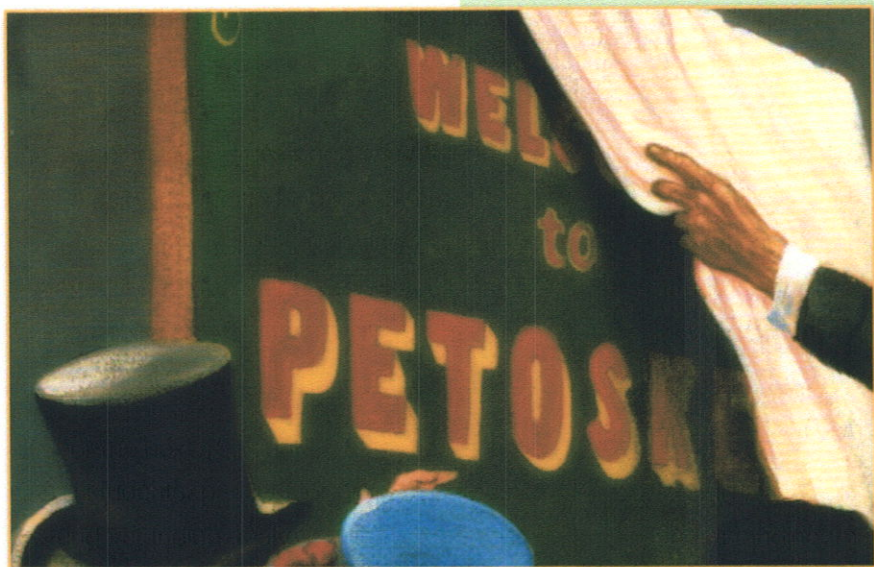
RESOURCES

Encyclopedias, factbooks, internet research tools, a Petoskey stone and the book:

- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2004). *The Legend of the Petoskey Stone*. Chelsea, MI: Sleeping Bear Press.

ASSESSMENT

Informal assessment is made via observation of the research-gathering process and how well each partnership team presents its findings.

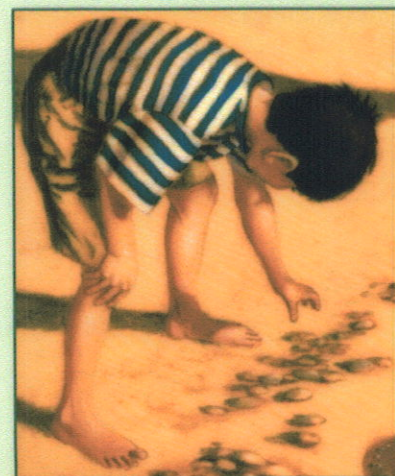


Key Concepts

- PETOSKEY STONE

Timing

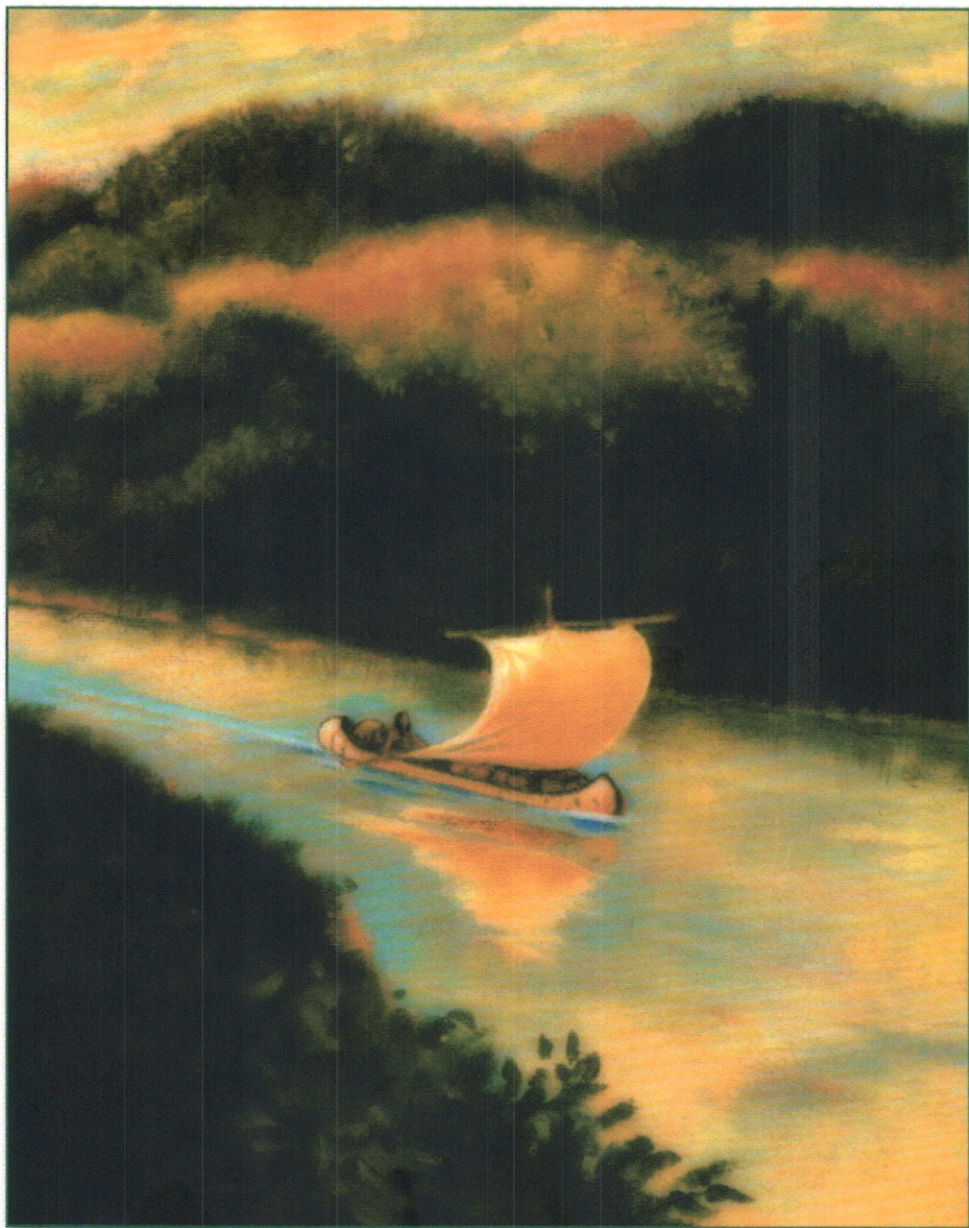
45 minutes | 1 day



LESSON 9: CREATING OUR OWN IDENTITIES

CONCEPT FORMATION

The purpose of this concept-formation lesson is to finalize student-created legends and connect them to identity formation.



Summary

The ninth lesson of the unit pulls together the student-created lessons which have been worked on at various times in the last two weeks.

Day one should begin with a 10-minute review of the concept of legend and the introduction of the concept of identity, followed by a discussion of how the two complement each other, both in terms of cultural identity and individual identity.

Spend the next 15 minutes observing as students complete the written portion of their legends. A final version should be done at this time.

The final 20 minutes of day one should be focused on the accompanying illustrations; have students represent their legends in a piece of artwork, which can be drawing, collage, model, or their own choice.

On day two, students should finish any lingering work on illustrations or written pieces within the first 10 minutes if they need the time. Have each student spend the remainder of the day presenting his/her legend, showing the accompanying artwork and briefly discussing how their legend links to their own cultural or self identity.

RESOURCES

- Student journals containing their legends work; art supplies including paper, pencils, crayons, glue, scissors, collage materials if desired.

ASSESSMENT

Informal assessment is made via individual meetings with each student on the first day to determine their progress toward the goal, as well as listening to each legend as it is presented to the whole class.

Formal assessment is made in the form of giving 1-10 points for the completed written legend and 1-10 points for the accompanying illustration, based on the level of detail and completeness of both.



Key Concepts

- IDENTITY

Timing

45 minutes/day | 2 days

LESSON 10: SONG OF THE BELL

INQUIRY

The purpose of this inquiry-based lesson is to teach the social scientific method of research and analysis. The lesson begins with an empirical question that is new to students and central to a social studies topic. Students formulate a hypothesis as a plausible but tentative answer to the question posed.

Students interpret and analyze data to determine whether it supports or refutes the hypothesis being tested. The teacher guides students in assessing the validity of the evidence and inferring its logical implications.

Students then decide whether to accept or reject the hypothesis being tested, or to revise the hypothesis, and offer reasons for their decision.

THE 29

| Captain Ernest M. McSorley, 63 | 1st Mate John H. McCarthy, 62 | 2nd Mate James A. Pratt, 44
3rd Mate Michael E. Armagost, 37	Wheelsman John D. Simmons, 60	Wheelsman Eugene O'Brien, 50	Wheelsman John J. Poviach, 59	Watchman Ransom E. Cundy, 53	Watchman William J. Spengler, 59	Watchman Karl A. Peckol, 55	Chief Engineer George J. Holl, 60	1st Asst. Edward E. Bindon, 47	2nd Asst. Thomas E. Edwards, 50	2nd Asst. Russell G. Haskell, 40	3rd Asst. Oliver "Buck" J. Champeau, 41	Oiler Blaine H. Wilhelm, 52	Oiler Ralph G. Walton, 58	Oiler Thomas Bentsen, 23	Wiper Gordon MacLellan, 30
Spec. Maint. Man Joseph W. Mazes, 59	AB Maint. Thomas D. Borgeson, 41														
Deck Maint. Mark A. Thomas, 21	Deck Maint. Paul M. Riipa, 22														
Deck Maint. Bruce L. Hudson, 22	Steward Robert C. Rafferty, 62														
2nd Cook Allen G. Kalmon, 43	Porter Frederick J. Beetcher, 56														
Porter Nolan F. Church, 55	Cadet David E. Weiss, 22														

THE WRECK OF THE EDMUND FITZGERALD

by Gordon Lightfoot

The legend lives on from the Chippewa on down
Of the big lake they call Gitche Gurnee
The lake, it is said, never gives up her dead
When the skies of November turn gloomy.

With a load of iron ore - 26,000 tons more
Than the Edmund Fitzgerald weighed empty
That good ship and true was a bone to be chewed
When the gales of November came early

The ship was the pride of the American side
Coming back from some mill in Wisconsin
As the big freighters go it was bigger than most
With a crew and the Captain well seasoned.

Concluding some terms with a couple of steel firms
When they left fully loaded for Cleveland
And later that night when the ships bell rang
Could it be the North Wind they'd been feeling.

The wind in the wires made a tattletale sound
And a wave broke over the railing
And every man knew, as the Captain did, too,
T'was the witch of November come stealing.

The dawn came late and the breakfast had to wait
When the gales of November came slashing
When afternoon came it was freezing rain
In the face of a hurricane West Wind.

When supper time came the old cook came on deck
Saying fellows it's too rough to feed ya
At 7PM a main hatchway caved in
He said fellas it's been good to know ya.

The Captain wired in he had water coming in
And the good ship and crew was in peril
And later that night when his lights went out of sight
Came the wreck of the Edmund Fitzgerald.

Does anyone know where the love of God goes
When the words turn the minutes to hours
The searchers all say they'd have made Whitefish Bay
If they'd fifteen more miles behind her.

They might have split up or they might have capsized
They may have broke deep and took water
And all that remains is the faces and the names
Of the wives and the sons and the daughters.

Lake Huron rolls, Superior sings
In the rooms of her ice water mansion
Old Michigan steams like a young man's dreams,
The islands and bays are for sportsmen.

And farther below Lake Ontario
Takes in what Lake Erie can send her
And the iron boats go as the mariners all know
With the gales of November remembered.

In a musty old hall in Detroit they prayed
In the Maritime Sailors' Cathedral
The church bell chimed, 'til it rang 29 times
For each man on the Edmund Fitzgerald.

The legend lives on from the Chippewa on down
Of the big lake they call Gitche Gurnee
Superior, they say, never gives up her dead
When the gales of November come early.

© 1976 Moose Music, Inc.

Unit of Study: **What Caused the Sinking of the *Edmund Fitzgerald*?****Key Concepts****Economic Activity**

n. — The production and distribution of goods and services at all levels.

— *Dictionary.com*

Environment

n. — The circumstances or conditions that surround one; surroundings.

— *Dictionary.com*

Shipwreck

n — To cause a ship to be destroyed, as by storm or collision.

— *Dictionary.com*

Abstract

The *Edmund Fitzgerald* foundered on Lake Superior during a severe storm November 10, 1975, at approximately 7:10 p.m. about 17 miles north-northwest of Whitefish Point, MI, at position 47 deg. 0'N by 85 deg. 7'W in Canadian waters.' If taught during the 2005 school year, this lesson could be taught as a 30th anniversary retrospective. This inquiry-based lesson takes place over three days and is Lesson Ten of the overall unit. The lesson focuses on the collision between the environment of the Great Lakes and the economic activity conducted on them as embodied in the *Fitzgerald* sinking. The lesson poses the question, 'Why did the *Edmund Fitzgerald* sink?' by examining the four main theories that have been advanced in the last 30 years and having students decide which is the most plausible. The over-arching purpose of the inquiry is to show students examples of the kinds of economic and human activity that have taken place on the Great Lakes and to show the effects on that activity by the environment of the region.

Objectives

Students will describe a few ways in which life in Michigan is affected by the Great Lakes, such as weather patterns, economic activity and state history. (*Michigan Grade Level Content Expectations, Grade Three, Geography 4*)

Sequence of Activities

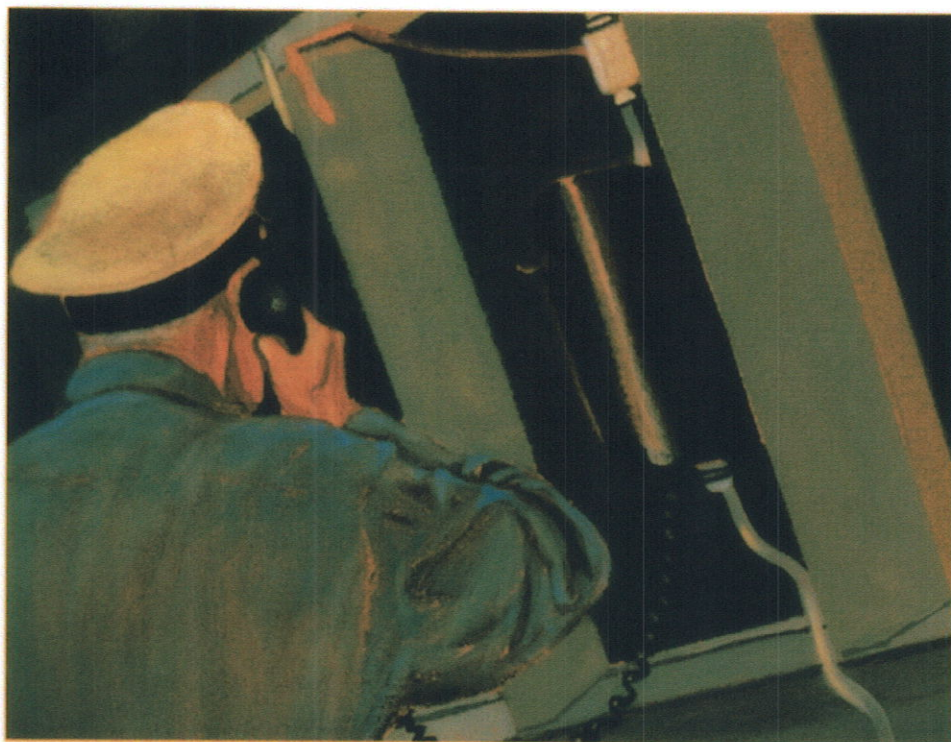
1. 'What happened to the Edmund Fitzgerald?' On **day one** of this lesson, begin by reviewing the Sleeping Bear Press book *The Edmund Fitzgerald: Song of the Bell*, which was featured in the Guided Reading of Lesson 9 (10-15 minutes). Particularly focus on why the ship was sailing (the economic activity it was engaged in) and on the stormy weather on Lake Superior that day. Follow the review by posing the inquiry for these three days: 'Why did the Fitzgerald sink, killing the entire crew?' highlighting the four main theories.
2. For the final 30 minutes of day one, show the first half of the Southport Video Productions DVD, 'The Wreck of the Edmund Fitzgerald.' Save a few minutes at the end of class for students to reflect in their writing journals on what they have seen/read so far.
3. On **day two**: Show the last half of the DVD. Probe for understanding by asking students why they think the ship sank. Allow about 5 minutes for this, followed by another 10 minutes of writing in their journals.
4. On **day three**: Begin by having student volunteers read the names of crew members and ring a bell for each of the 29 victims (5 minutes).
5. Discuss the terms 'theory' and 'hypothesis.' Explain the difference between them. Explain why there are five 'theories' for the sinking and that the students' task for the day will be to form a hypothesis of their own. The five main theories behind the sinking are: Bottoming out/grounding out near Six Fathom Shoal; faulty hatch covers; crew members did not fasten the series of clamps that were used to hold down all of the heavy taconite pellets, and therefore the cargo shifted.; previous structural damage may have caused the sinking; huge waves swamped the ship and it sank (the Three Sisters).
6. Divide students into four groups. Assigned each group one of the four main theories for the sinking and will receive materials on the sinking, from original newspaper articles to copies of the Sleeping Bear Press book to copies of the lyrics for the song to copies of official government reports (in summary form). Additionally, make sure each group has photos of a scale model of the ship, as well as photographs/drawings taken of the ship as she now lies.
7. Give each group the task to evaluate its assigned theory and decide whether or not it is valid. Walk around to each group and assist with questions or confusion (15 minutes).
8. Bring the class back together and have a group spokesperson present each theory in summary form, report on the evidence supporting/disproving that theory, and the group's conclusion as to the validity of the theory (10 minutes).
9. Have the whole class discuss the theories and make a decision about which is the most plausible. The data presented in small groups should be available to all. One student volunteer should write the class's final decision on the board, along with the evidence which the class believes supports the hypothesis (15 minutes).
10. Have students copy the final hypothesis and supporting reasons into their journals as it is being written on the board.



Assessment

Informal: Observation of small group or partner discussion of each theory; evaluation of each group's summary of their assigned theory; assessment of the process and reasoning used to arrive at the final hypothesis.

Formal: Formal assessment is made by reading individual journals and assessing student's understanding of the task of these three days, their understanding of the historical event and their understanding of how data analysis and logic results in hypothesis.



"Anderson, this is the Fitzgerald. I have sustained some topside damage. I have a fence rail laid down, two vents lost or damaged, and a starboard list. I'm checking down. Will you stay by me until I get to Whitefish?"

Instructional Resources

Articles

- Holden, Thom. (1991). *Lake Superior's Wicked November Storms*. *Mariners Weather Log*, 35 (4), 4-11.
- Hopes for Survivors from Lake Ship Fading*. (1975, Nov. 11). Ludington (MI) *Daily News*, p. 1A.
- Stirring Up Memories*. (1996, November). Minneapolis (MN) *Star-Tribune*, p. 2A.

Books

- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2003). *The Edmund Fitzgerald: Song of the Bell*. Chelsea, MI: Sleeping Bear Press.
- Stonehouse, F. (1977). *The Wreck of the Edmund Fitzgerald*. Au Train, MI: Avery Color Studios

Film

- Southport Video Productions (Producer). *The Wreck of the Edmund Fitzgerald* [DVD]. (Available from Southport Video Productions, 4609-74th Place, Kenosha, WI 53142.)



Lectures

- Knox, J. A. and S. A. Ackerman (1996). *Teaching the extratropical cyclone with the Edmund Fitzgerald storm*. 5th American Meteorological Society Symposium on Education.

Official Records

- Department of Transportation, Coast Guard. (1976). *Marine Casualty Report, SS Edmund Fitzgerald; Sinking in Lake Superior on 10 November 1975 with Loss of Life*. US Coast Guard Marine Board of Investigation Report and Commandant's Action. Report No. USCG 16732/64216. Washington, DC: U.S. Government Printing Office.
- National Transportation Safety Board. (1978). *Marine Accident Report SS Edmund Fitzgerald Sinking in Lake Superior, November 10, 1975*. Report Number: NTSB-MAR-78-3. Washington DC: U.S. Government Printing Office.

Song

- The Wreck of the Edmund Fitzgerald* (1977). Lyrics by Gordon Lightfoot, Moose Music Ltd.

Websites

- Economic Activity (2005). Retrieved 4-Aug-05 from <http://dictionary.reference.com/search?q=economic%20activity>
- Environment (2005). Retrieved 4-Aug-05 from <http://dictionary.reference.com/search?q=environment>
- Shipwreck (2005). Retrieved 5-Aug-05 from <http://dictionary.reference.com/search?q=shipwreck>
- *Edmund Fitzgerald* And Other Shipwreck And Lighthouse DVD - Videos (Undated). Retrieved 3-Aug-05 from <http://www.edmundfitzgerald.com/>
- *SS Edmund Fitzgerald* Online (Undated). Retrieved 3-Aug-05 <http://www.ssefo.com/>
- Theories about the Sinking (Undated). Retrieved 3-Aug-05 <http://www.ssefo.com/info/theories.html>
- The sinking of the *SS Edmund Fitzgerald* - November 10, 1975 (Undated). Retrieved 3-Aug-05 <http://cimss.ssec.wisc.edu/wxwise/fitz.html>
- *Edmund Fitzgerald* Shipwreck Information and Memorabilia (Undated). Retrieved 3-Aug-05 <http://www.shipwreckmuseum.com/fitz.phtml>

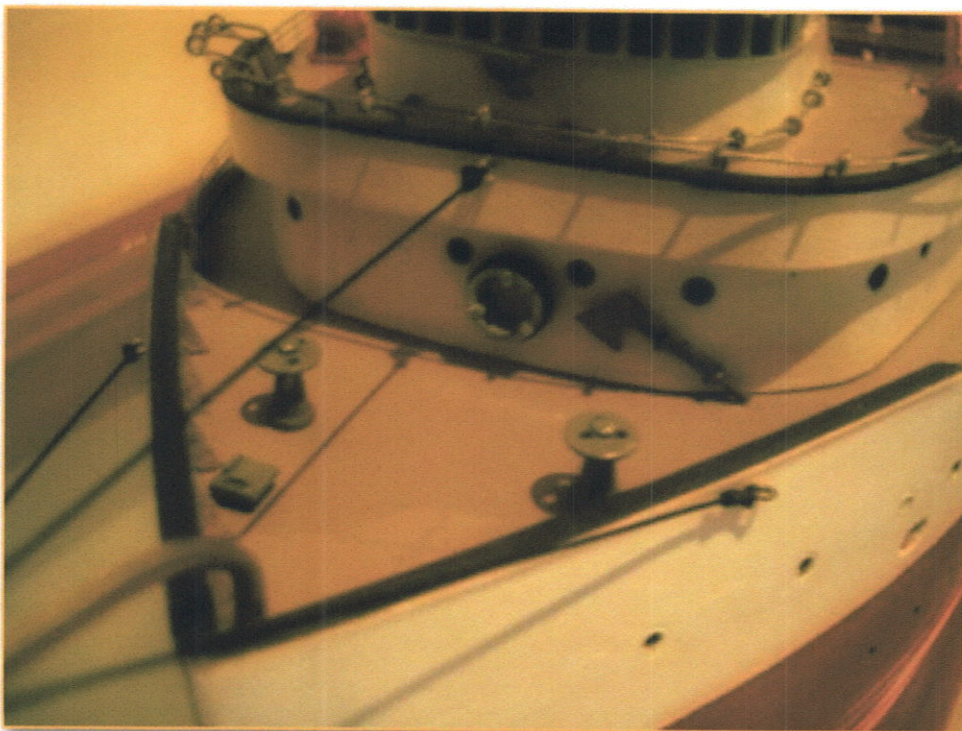
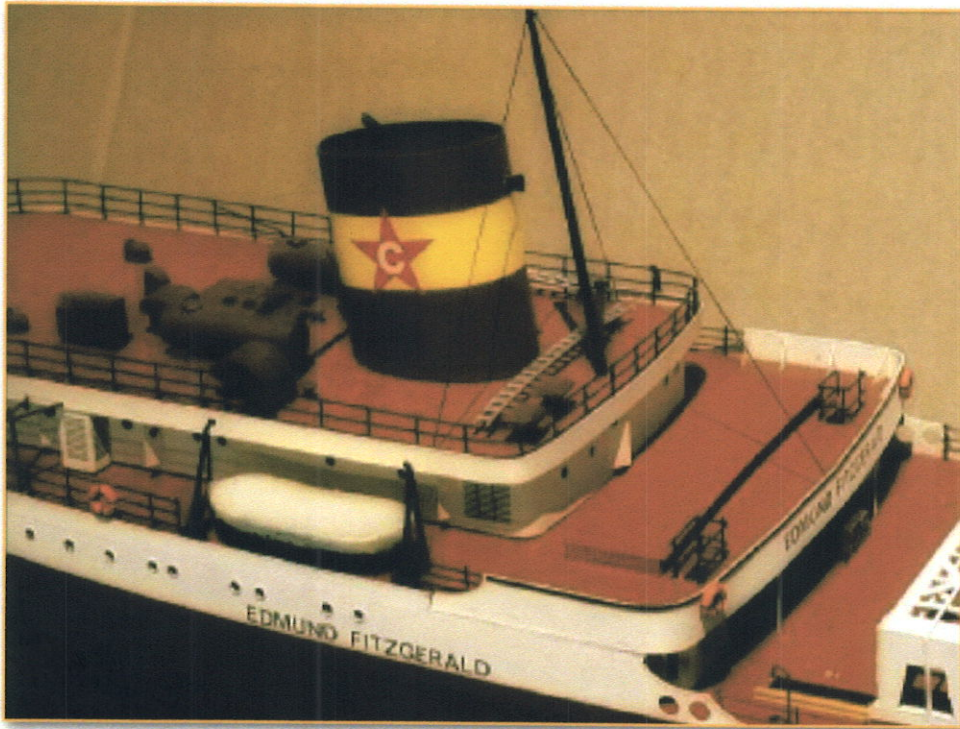
Photographs

- *Edmund Fitzgerald* Wreck, Views (Undated) Retrieved 3-Aug-05 <http://www.jclary.com/fitz/fitz.html>



Photographs

- Yachts Down Under, Views (Undated) Retrieved 3-Aug-05 http://www.yachtsdownunder.com/Edmund_Fitzgerald.htm



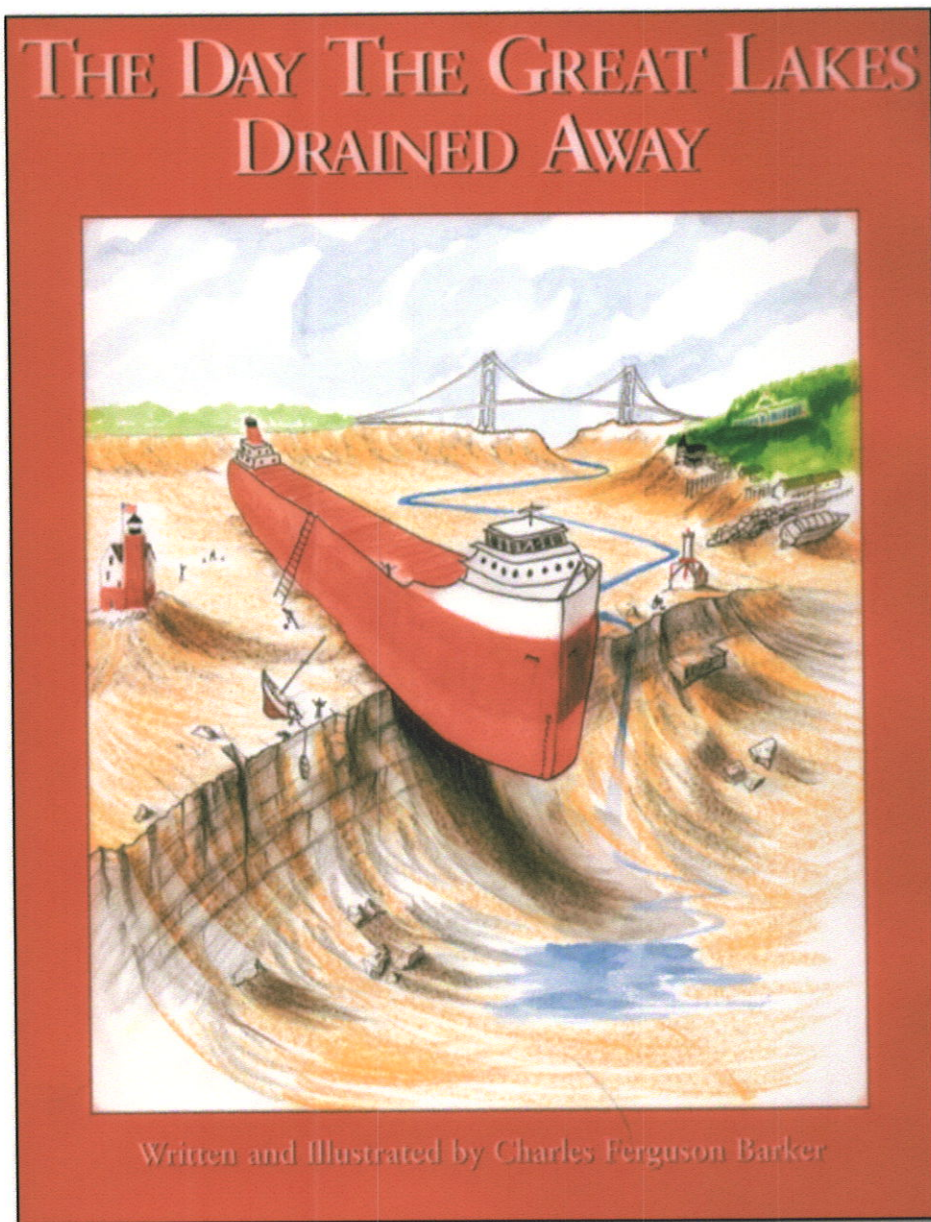
LESSON 11: THE GREAT DRAIN

GUIDED READING

The purpose of this guided reading lesson is to read and explore the book *The Day the Great Lakes Drained Away* and prepare for the final values-based lesson.

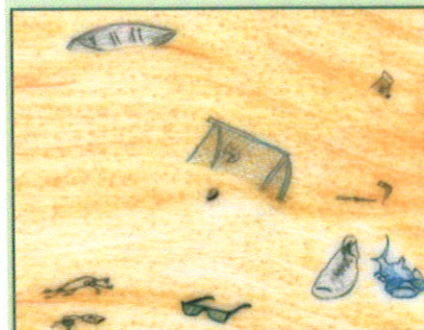


When the Great Lakes began to drain,
the lake levels dropped only a few inches a year;
So no one thought much about it...
it seemed there was nothing to fear.

Unit of Study: **The Book *The Day the Great Lakes Drained Away***

Objectives

Students will describe a few ways in which humans in Michigan affect the Great Lakes through personal and economic activity. (Michigan Grade Level Content Expectations, Grade Three, IV.4.LE.2.)



Key Concepts

Drain

v. - To flow off or out; to become empty by the drawing off of liquid; to become gradually depleted; a gradual outflow or loss; consumption or depletion.

— Dictionary.com

Landscape

n. - An expanse of scenery that can be seen in a single view.

— Dictionary.com

Underwater

adj. - Relating to, occurring, used, or performed beneath the surface of water.

— Dictionary.com

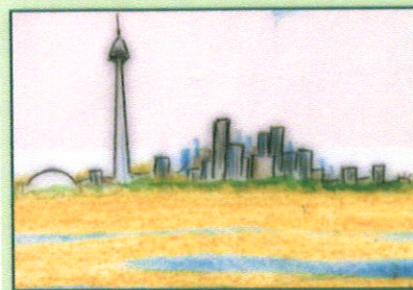
Abstract

This lesson is a two-day activity and is Lesson 11 of the unit. Learning is sparked with a guided reading of the book *The Day the Great Lakes Drained Away*. The lesson gives students the opportunity to read the book in-depth, discuss it, and connect to the larger world through questioning why the Great Lakes drained away in the story. Students are given the opportunity to watch a drain in progress through the use of a water table; draining the water from the basin will reveal an unseen landscape and objects. The unit culminates with an art project where students draw their own representations of what might be found under the Great Lakes.

Scaffolding for the penultimate Lesson 12 is done throughout this lesson, which sets the stage for taking a personal stand on what should be done to preserve the Great Lakes.

Sequence of Activities

1. On **day one** of this lesson, begin by introducing the book, *The Day the Great Lakes Drained Away*. Explain the key concept, that an **underwater landscape** would be revealed if the Great Lakes were to **drain** away. Ask students to define those three terms. (About a minute)
2. Continue the introduction and scaffolding of the text by having students pay close attention to the illustrations and how they support what the text is saying; point to specific illustrations, such as the ones of Toronto and Cleveland (the CN Tower might be recognizable to a few students). Point out words that might be difficult and how students can look for clues in the text or illustrations to problem-solve for meaning. (5 minutes)
3. Discuss the geography of the lakes region as mentioned in the book; find specific spots like Cleveland, Toronto, Mackinac Island and Pelee Island on a map. Conclude the introduction by instructing students to read the book to themselves in their best whisper voices while walking around listening to their progress. (5 minutes)
4. During the reading, interact with specific students to probe for their understanding of the text and what they notice about the illustrations. (15 minutes)
5. Once everyone has finished the text, ask comprehension questions to assess understanding; ask reaction questions to assess student engagement with the text. Revisit portions of the text, particularly the illustrations and how they connect with the three key concepts. Extend the text by copying down words students found difficult to read; these are likely to be geographical place names, so revisit those spots on a map. (10 minutes)
6. For the last 10 minutes of day one, bring the class to a prepared water table. The water table should be fairly big and have a drain with a valve which can be opened so that water can drain down a tube into a sink or outside. This activity may be better done outside. Prior to student arrival for the day, use clay or sand or a combination, as well as aquarium objects like castles, shipwrecks, treasure chests or the like and make an underwater landscape. Fill the water table with water and die that water with blue food coloring so that the underwater landscape can't be seen. Tell students the class can now witness the drain described in the book in action. Ask for guesses about what the underwater landscape might look like and what objects might be underneath the water. Slowly open the drain valve and reveal the landscape. Finish day one with a short note about the next day's activity: creating underwater landscapes of their own. (10 minutes)
7. On **day two**: Review the book very quickly by asking students to recount its details; conduct a short recap of the water table demonstration. Then instruct students to take out art materials and create drawings or other representations of underwater landscapes of their own devising. Tell students artwork will be handed in for a grade, so it should represent their best effort. (25 minutes)
8. When artwork is complete, break the class into small groups so students can look at each other's drawings and share ideas on why draining the lakes would reveal a 'cool' landscape, but would be bad for the region.
9. Bring the class back together and have group representatives share these ideas with the larger class, posting those ideas on sticky notes on a whiteboard. Leave the notes posted; they will be needed in Lesson 12, which features writing a lesson to the governor urging action to prevent a Great Lakes Great Drain. End the lesson by collecting the artwork. (20 minutes)



Assessment

Informal Observation of individual, whisper-voice reading; short, one-on-one mini-conferences with each individual student to probe for understanding.

Formal Evaluation of art project which calls for students to draw representations of what they think might lie under the Great Lakes. Assessment is made on originality, completeness, detail and whether the picture makes connections to the book we read.

Instructional Resources

Books

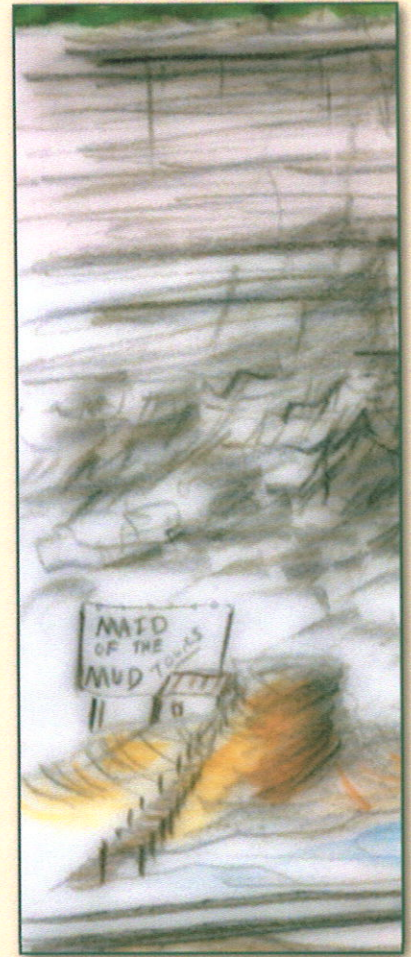
- Barker, Charles Ferguson. (2005). *The Day the Great Lakes Drained Away*. Atona, Manitoba: Mackinac Island Press.

Other (In-Room Supplies)

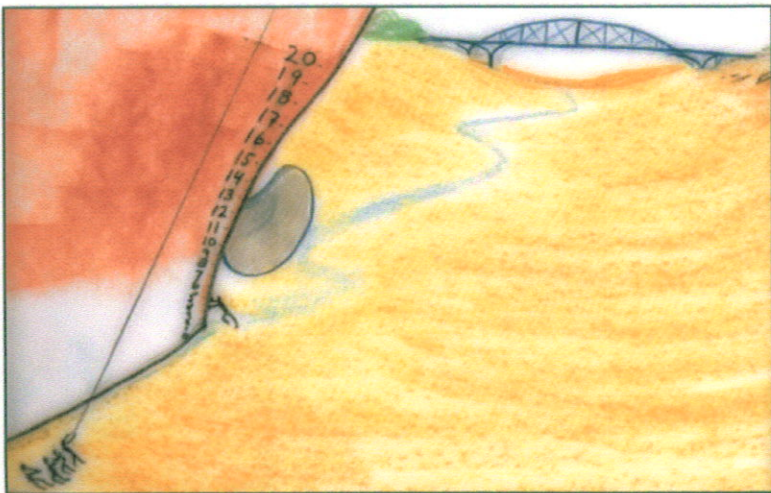
- Drawing paper, crayons, pens, markers; Water table, sand, aquarium objects, plastic boats.

Websites

- Drain (2005). Retrieved 8-Aug-05 from <http://dictionary.reference.com/search?q=drain>
- Great Lakes Bathymetry (2005). Retrieved 8-Aug-05 from <http://www.ngdc.noaa.gov/mgg/greatlakes/greatlakes.html>
- Landscape (2005). Retrieved 8-Aug-05 from <http://dictionary.reference.com/search?q=landscape>
- Mackinac Island Press (2005). Retrieved 8-Aug-05 from <http://www.mackinacislandpress.com/>
- Underwater (2005). Retrieved 8-Aug-05 from <http://dictionary.reference.com/search?q=underwater>



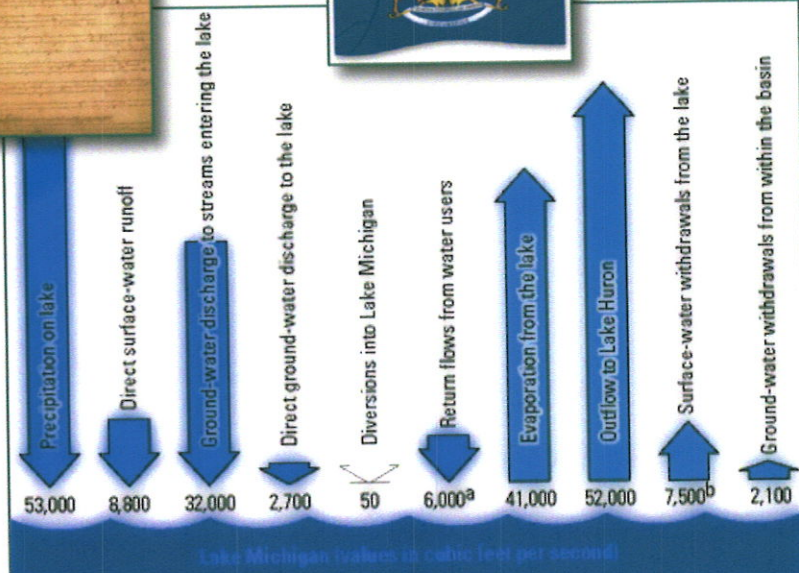
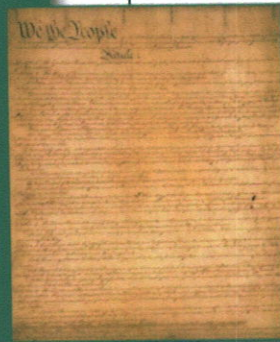
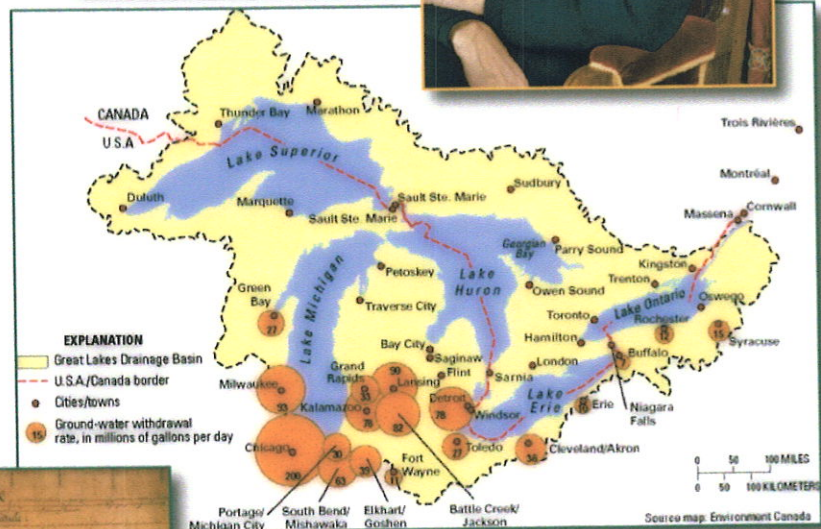
The mighty Niagara Falls had gone from rushing water to just a little trickle
The town's hotels and shops found themselves in quite a big pickle...
NO ONE WOULD COME!



LESSON 12: TAKING ACTION

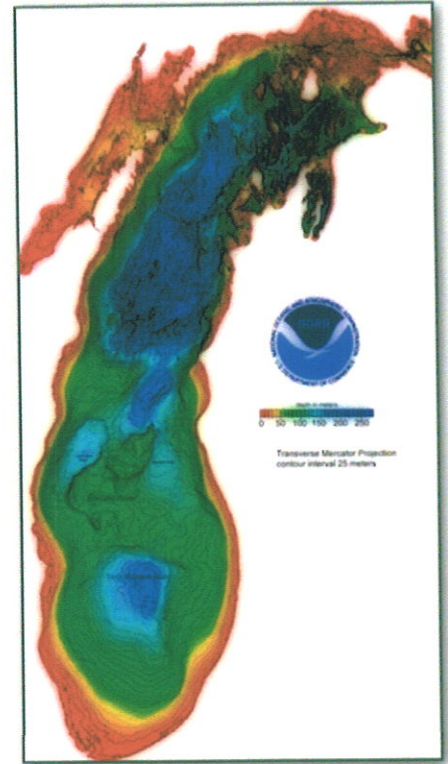
VALUES

This lesson is where the entire unit comes together and results in a letter to the governor urging a specific plan of action for the future of the Great Lakes region.



^aReturn flow is reduced by 3,200 ft³/s that is diverted out of the basin at Chicago, Ill.

^bWithdrawals for power plant cooling not included

Unit of Study: **Taking a Stand on Use of Great Lakes Water**

Abstract

This lesson is a two-day activity and is the culminating Lesson 12 of the unit. The lesson uses the knowledge of the Great Lakes region's history, legends and culture from the past month as well as understanding of the tension between the environment and economic activity to help students form an opinion on what the future of the Great Lakes should be like in terms of human impact through water use. Students will take a stand of their own choosing on this future and support it with background data and evidence to form a coherent narrative letter to the governor of Michigan which states their vision for the region. The letters will be mailed by the students themselves as an example of the exercise of the democratic process in action.

Objectives

In a letter to a government official, **students will take a principled stand** on the use of water from the Great Lakes and **support that stand** with a review of history, current and data and opinion about the future, drawing upon one or more of the core democratic values. (*Michigan Grade Level Content Expectations, Grade Three, Civics and Government 8; Inquiry and Decision Making 14, 15 and 16.*)

Key Concepts

Values

n. - A principle, standard, or quality considered worthwhile or desirable.

— *Dictionary.com*

Common Good

n. - The good of a community.

— *Dictionary.com*

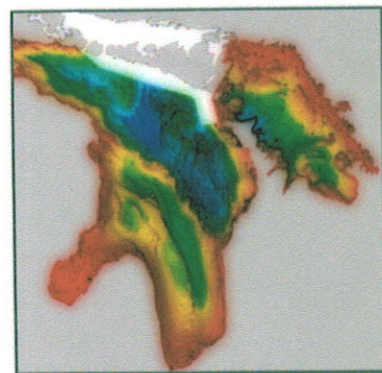
Pursuit of Happiness

"Life, liberty and the pursuit of happiness" is one of the most famous phrases in the United States Declaration of Independence. It is listed as one of the "inalienable rights" of man. The phrase is based on the writings of John Locke, who expressed a similar concept of "life, liberty, and estate (or property)".

— *Wikipedia.com*

Sequence of Activities

1. On day one of the lesson, introduce the focus question: 'What (if anything) should be done in the future about water usage in the Great Lakes region?' Tell students they will be writing a letter to the governor and mailing it. The letter will contain their position on that question; that position will be backed by research and data they will gather over the last two days of this unit. Post the following questions on the board to help guide student thinking: 'Is water use of concern to our state?' 'Should state governments limit water intake from the Great Lakes?' 'Should recreational and economic activity on/beneath the Lakes be limited?' (10 minutes).
2. The rest of day one should be spent on research of this broad topic. Allow students to work in pairs to conduct their research, even though individual, separate letters should be written. Have students answer the three questions on the board first and then conduct their research based on those questions prior to answering the bigger focus question. Make sure there are a wide variety of sources/voices available for the research, from internet to magazines to newspapers to encyclopedias. (35 minutes)
3. Throughout day one, check each student's work to make sure he/she has answered the three sub-questions and has collected a body of references to support those answers. Probe for understanding of the connections between what has been researched and how/if it connects to the student's answers.
4. On day two, begin by having students answer the focus question based on their research from the previous day. (15 minutes)
5. While they are brainstorming their answers, post a sample letter on the board. Each student's letter should have the governor's address, a salutation, 'Dear Gov. Granholm,' and a statement of their position in the first paragraph, with at least two following paragraphs summarizing their supporting research. It should conclude with 'Sincerely,' and have their names signed. Make sure students understand the format of the letter, then have them write a first draft of the letter. Once they are finished, have two or three students read their letters and let the class critique them. (20 minutes)
6. Have students write a final version of the letter in their best handwriting; pass out envelopes and stamps and have them address them. Once each letter is complete, read it with the student to make sure it is legible, meets the criteria for the assignment and makes sense. Allow students to fold the letters and insert them in the envelopes for mailing. Students can be given the option to mail the letters themselves, or the teacher can collect them for mailing. It is best if students see the process through to the end themselves. (15 minutes)
7. Summarize the points raised in the letters, discussing how the opinions reflect diversity within the class. Wrap-up with a short, student-sparked review of the concepts which have been learned in the unit. Students should be able to articulate the key concepts taught in all 12 lessons. (5 minutes)
8. As an extension of the lesson, if a reply is received from the governor's office at a later date, read it to the students, pass out copies for them to keep and discuss the response, asking such questions as how did the governor answer them? Did the reply address the issues raised in the letter? Were they surprised that she wrote back? If no reply is received, discuss this fact and why they think she failed to respond.



Assessment

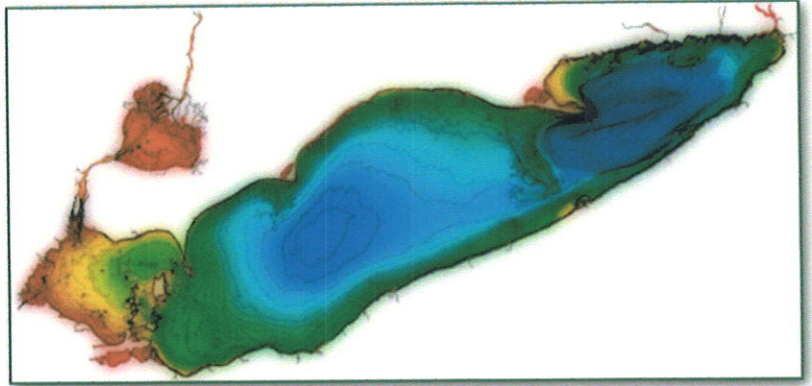
Informal: Reading of each student's first draft of the letter to ensure that he/she is taking a stand and supporting it with evidence.

Formal: Evaluation of the completed letter prior to mailing by looking for a specific, concrete value statement, a plan for action and supporting research/data evidence to back the statement up. Graded on a scale of 1-10, with 10 being the highest.

Instructional Resources

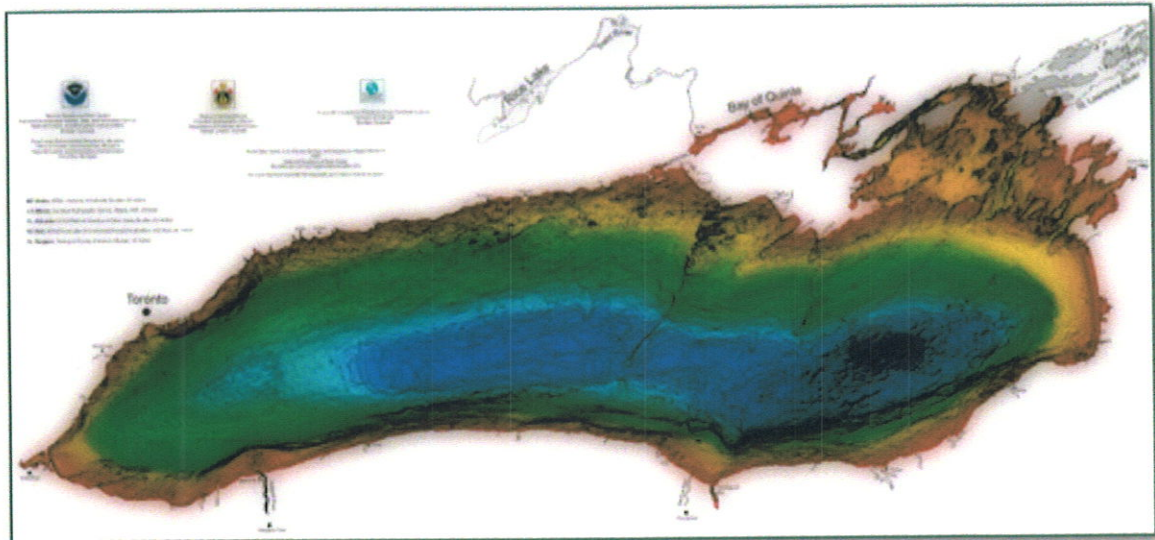
In-Room Supplies)

- Example letters, example topics, photo of the governor, proofreading chart, writing paper, crayons, pens, markers, pencils, stamps, envelopes.



Websites

- Values (2005). Retrieved 9-Aug-05 from <http://dictionary.reference.com/search?q=values>
- Common Good (2005). Retrieved 9-Aug-05 from <http://dictionary.reference.com/search?q=common%20good>
- Pursuit of Happiness (2005). Retrieved 9-Aug-05 from http://en.wikipedia.org/wiki/Life%2C_liberty_and_the_pursuit_of_happiness





THE DAY THE GREAT LAKES DRAINED AWAY

A Revealing Exploration for Third Graders

SECTION IV

ASSESSMENTS

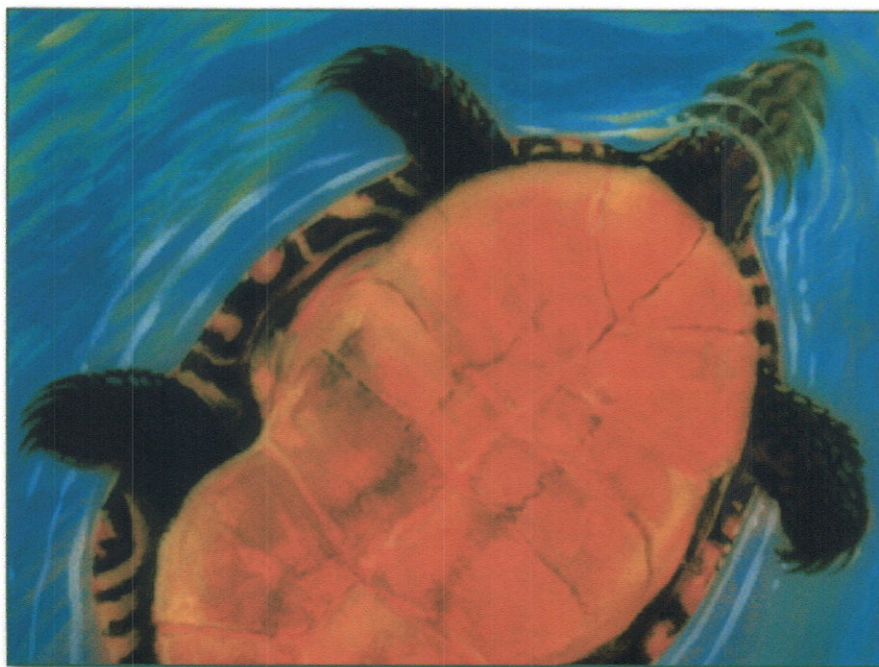
ELABORATED ASSESSMENT TASK

ASSESSMENTS

CHARTING PROGRESS

Assessments for this unit include informal observation and review/questioning and formal tasks such as a quiz, an essay, a letter, a legend, some artwork.

The tasks are heavy on writing because it prompts critical thinking and inquiry, which are invaluable social science tools.



Assessment Tasks

LESSON 1:

Informal assessment is made through questioning for understanding of key concepts and probing for background knowledge.

Formal assessment is made of students' completed maps to ensure understanding of proper place of cities, states and lakes.

Objective(s) assessed: *Students will be able to identify the shapes of the Great Lakes on a map, name each lake and distinguish whether they are natural or man-made; they will be able to list principal economic and personal activities which use the lakes. (Michigan Grade Level Content Expectations, Grade Three, Inquiry and Decision Making 14.)*

LESSON 2:

Informal assessment is made through observation of small group or partner discussion of what legends are; reading what small groups/partners post on the board with before-lesson and after-lesson definitions of 'legend.'

Formal assessment is made with a short, 10-question quiz where students classify examples and non-examples of legends.

Objective(s) assessed: *Students will distinguish between the legends of the past, the current condition of the Great Lakes and the future possibilities of the region. (Michigan Grade Level Content Expectations, History 1 and 2.)*

LESSON 3:

Informal assessment is made through questioning for understanding of the story's plot points and probing for background knowledge during whisper reading.

No formal assessment.

LESSON 4:

Informal assessment is made by making sure everyone understands the key concepts and can translate them into personal values; assessment of student legend brainstorming should reveal the beginnings of 'taking a stand on a value.'

No formal assessment.

LESSON 5:

Informal assessment is made by making sure everyone understands the key concepts and works in partnership to conduct the data-gathering; each partnership is assessed on how they work together and on their final conclusion.

Formal assessment is made of the group's data and conclusion, which must be written and turned in on paper in short essay form.

Objective(s) assessed: *Students will distinguish between the legends of the past, the current condition of the Great Lakes and the future possibilities of the region. (Michigan Grade Level Content Expectations, History 1 and 2.)*

LESSON 6:

Informal assessment is made through observation of the play-acting of the book and ensuring that all students are participating.

No formal assessment.

LESSON 7:

Informal assessment is made via observation of the research-gathering process.

Formal assessment will be made by grading the essays handed in based on whether the student took a position and supported it adequately with research.

Objective(s) assessed: *Students will take a principled stand ... and support that stand with a review of history, current and data and opinion about the future, drawing upon one or more of the core democratic values. (Michigan Grade Level Content Expectations, Grade Three, Civics and Government 7 and 8 and Inquiry and Decision Making 15 and 16.)*

LESSON 8:

Informal assessment is made via observation of the research-gathering process and how well each partnership team presents its findings.

No formal assessment.

LESSON 9:

Informal assessment is made via individual meetings with each student on the first day to determine their progress toward the goal, as well as listening to each legend as it is presented to the whole class.

Formal assessment is made in the form of giving 1-10 points for the completed written legend and 1-10 points for the accompanying illustration, based on the level of detail and completeness of both.

Objective(s) assessed: *Students will distinguish between the legends of the past, the current condition of the Great Lakes and the future possibilities of the region. (Michigan Grade Level Content Expectations, History 1 and 2.)*

LESSON 10:

Informal assessment is made through observation of small group or partner discussion of each theory; evaluation of each group's summary of their assigned theory; assessment of the process and reasoning used to arrive at the final hypothesis.

Formal assessment is made by reading individual journals and assessing student's understanding of the task of these three days, their understanding of the historical event and their understanding of how data analysis and logic results in hypothesis.

Objective(s) assessed: *Students will describe a few ways in which life in Michigan is affected by the Great Lakes, such as weather patterns, economic activity, recreational life and state history. (Michigan Grade Level Content Expectations, Grade Three, Geography 4 and Economics 13.) Students will describe a few ways in which humans in Michigan affect the Great Lakes through personal and economic activity. (Michigan Grade Level Content Expectations, Grade Three, Economics 13.)*

LESSON 11:

Informal assessment is made through observation of individual, whisper-voice reading; short, one-on-one mini-conferences with each individual student to probe for understanding.

Formal assessment is made through evaluation of art project which calls for students to draw representations of what they think might lie under the Great Lakes. Assessment is made on originality, completeness, detail and whether the picture makes connections to the book we read.

Objective(s) assessed: *Students will distinguish between the legends of the past, the current condition of the Great Lakes and the future possibilities of the region. (Michigan Grade Level Content Expectations, History 1 and 2.)*

LESSON 12:

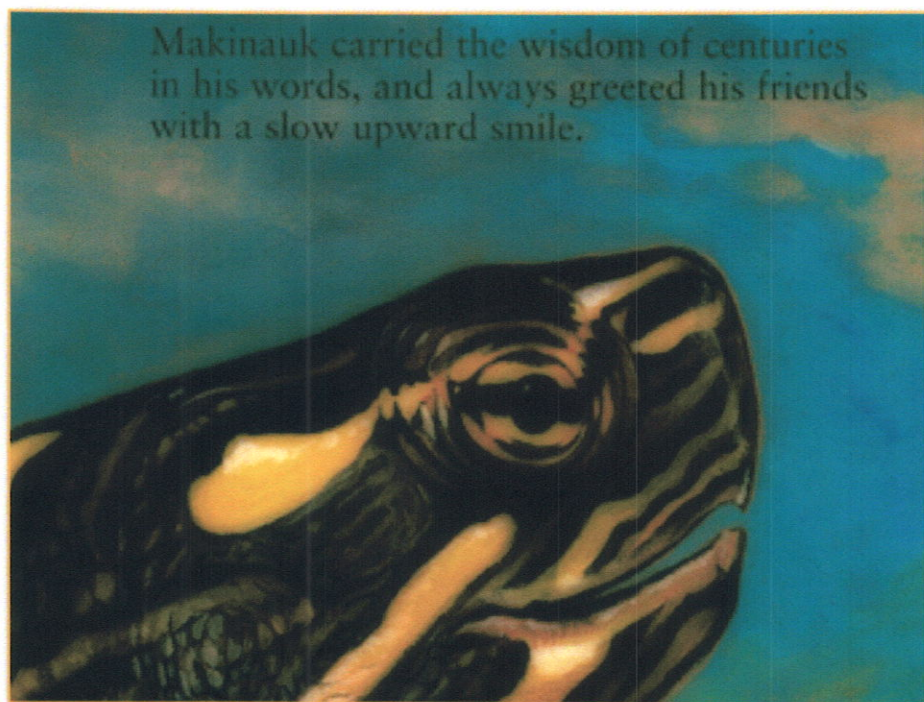
Informal assessment is made by reading each student's first draft of the letter to ensure that he/she is taking a stand and supporting it with evidence.

Formal assessment is an evaluation of the completed letter prior to mailing by looking for a specific, concrete value statement, a plan for action and supporting research/data evidence to back the statement up. Graded on a scale of 1-10, with 10 being the highest.

Objective(s) assessed: *Geography 4: Students will describe a few ways in which life in Michigan is both affected by the Great Lakes, such as weather patterns, economic activity, recreational life and state history; and Economics 2: Students will describe a few ways in which life in Michigan affects the Great Lakes through personal and economic activity; and Civics and Government 7 and 8 and Inquiry and Decision Making 14, 15 and 16: In a letter to a government official, students will take a principled stand on the use of water from the Great Lakes and support that stand with a review of history, current and data and opinion about the future, drawing upon one or more of the core democratic values.*



Elaborated Assessment Task | Abstract and Objectives Assessed



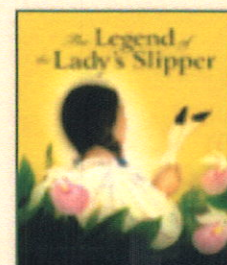
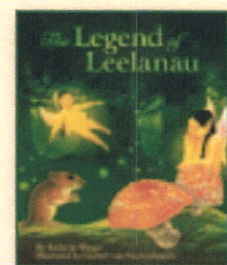
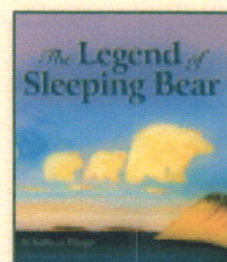
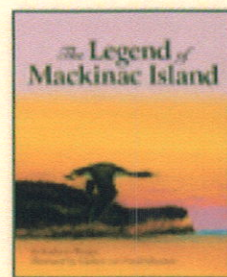
Abstract

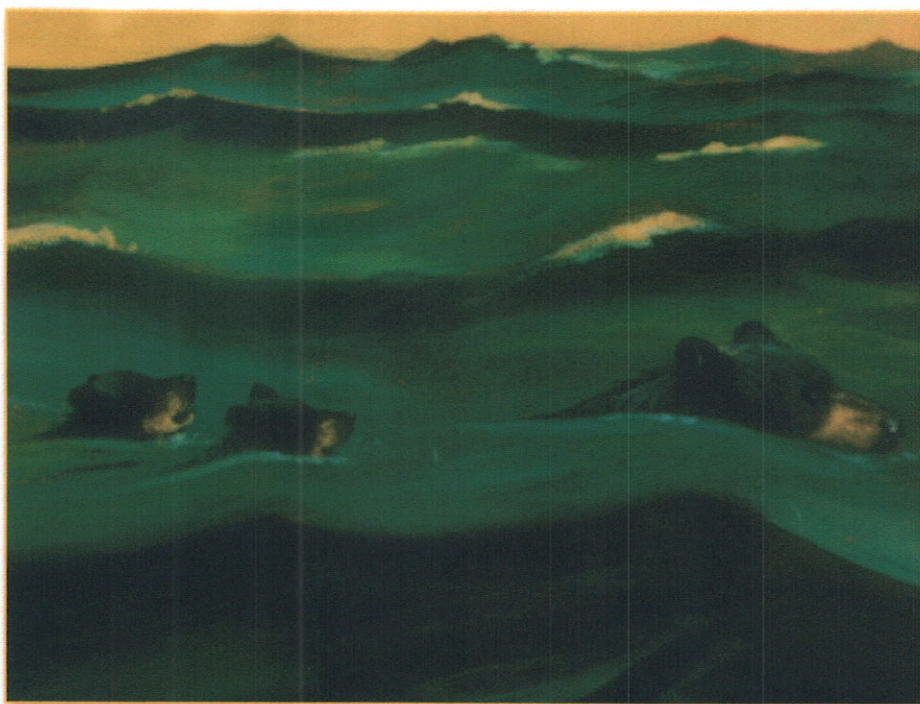
This value-based deliberation task is the final assessment in the unit and is designed to assess understanding of the importance of the Great Lakes to the state. It assesses children's ability to express this understanding in a letter addressed to Gov. Jennifer Granholm which will contain at least three paragraphs; in the first, students will discuss the history/legends of the Great Lakes; in the second, they will note how the lakes have changed as a result of people and economic activity; and in the third, they will take a stand how the state and the region should protect the water resources of the Great Lakes and why. A good letter will have the proper salutation and closing. The letters will be mailed to the governor.

Unit Objectives Assessed

Students will describe a few ways in which life in Michigan is both affected by the Great Lakes, such as weather patterns, economic activity, recreational life and state history (*Michigan Grade Level Content Expectations, Grade Three, Geography 4*) AND affects the Great Lakes through personal and economic activity. (*Michigan Grade Level Content Expectations, Grade Three, Economics 2.*)

In a letter to a government official, **students will take a principled stand** on the use of water from the Great Lakes and support that stand with a review of history, current and data and opinion about the future, drawing upon one or more of the core democratic values. (*Michigan Grade Level Content Expectations, Grade Three, Civics and Government 7 and 8; Inquiry and Decision Making 14, 15 and 16.*)



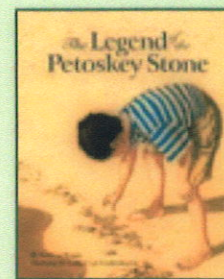


Directions

'We've been doing a lot of study on the Great Lakes and now it's time for the last step in our study; to write a letter to Michigan Governor Jennifer Granholm. We're going to work on this letter all this week in Social Studies. There are three things that we want to tell the governor in this letter. The first thing is what we learned about the history and legends of the Great Lakes. That helps get her attention. This will be in the first paragraph. Also in that paragraph, we want to tell her that we read the book that she introduced, *The Day the Great Lakes Drained Away*. The second thing we want to tell her will go in the second paragraph. We need to tell her why the Great Lakes are important to our future and talk about what we learned about how the Great Lakes affect our weather and jobs and quality of life and how we in turn affect them. And the third thing we want to tell her will go in the third paragraph. This is the part about the future; what could happen to our state if we're not careful with its most precious resource, the Great Lakes. Again, we are going to write to the governor and tell her three things: The history and legends of the Great Lakes; the importance of the Great Lakes to our state and what we need to do to protect them in the future. What's the first thing we write in a letter? That's right, Dear Gov. Granholm. And then we write the first paragraph.'

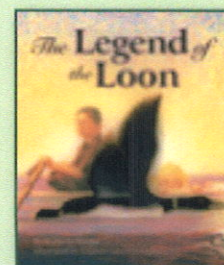
Procedure

On day one, students determine the stand they will take on the issue, write the salutation of the letter and do brainstorming about each of the three parts of the letter, resulting in a draft. On day two, students read each others' letters and talk about whether they make sense and how they can make them better; revise letters and finish any illustrations. Students address envelopes and add stamps for mailing.



Prompts

- **Example Letters:** Examples of good letters will be written on flip chart pages and posted on the walls.
- **Example topics:** Also on flip chart pages on the wall will be lists of topics which they could include in their letter to the governor, such as the legends, how the lakes affect snowfall, how commerce is made possible by the lakes; how the lakes could be drained if we aren't careful with the water, etc.
- **Photo of the Governor:** A visual prompt so they can see who they are writing to.
- **The Books:** All of the books will be on tables around the room, so they remember what we've read so far.
- **Proofreading Chart:** A flip chart page with notes on what to look for when proofreading letters..
- **Envelopes and Stamps:** Rather than just a packet of letters, we want them to be from individuals, which have more impact. Scaffolding about this will be done first.



Assessment Scoring Rubric				
Objective	Score			
	1 - Fails	2 - Approaches	3 - Meets	4 - Exceeds
<i>Students will describe a few ways in which life in Michigan is both affected by the Great Lakes, such as weather patterns, economic activity, recreational life and state history and affects the Great Lakes through personal and economic activity.</i>	Letter has no distinct paragraphs; does not mention specifics; doesn't properly assess current conditions; contains no mention of change over time; writer doesn't comprehend the connection between change and activity. Letter contains no mention of weather patterns, economic activity, parks and recreation and history; letter is very basic and general.	Letter mentions mentions at least once what shape the lakes are in; mentions that the lakes have changed as a result of people and economic activity, but lacks specificity. Letter mentions that the Lakes affect weather patterns like snow storms and that they provide fun in the form of parks and boating, etc. Letter mentions history in only a general way.	Letter has three distinct paragraphs; first mentions legends and history; second mentions specific ways the lakes are important; third paragraph talks about importance of preserving lakes for the future. Letter contains at least two specific ways people and economic activity have changed the lakes and what those changes are and relates them to citizens' lives.	Paragraphs are longer and more developed; mentions the history/legends we studied; mentions specific economic activity; explains specific ways to protect the lakes and mentions the legislature and other political leaders. Letter mentions all four examples of ways, mentioning specific weather events; how industry draws water from the lakes and dumps waste into them; that it's fun to visit parks and the lakes and mentions specific fun things to do; and mentions specific events that we studied in class, such as the wreck of the <i>Fitzgerald</i> .
<i>Students will take a principled stand on the use of water from the Great Lakes and support that stand with a review of history, current and data and opinion about the future, drawing upon one or more of the core democratic values.</i>	Letter takes no stand or letter takes a stand but doesn't support it with an opinion or reason.	Letter takes a stand and supports it with an opinion, but doesn't offer specifics or data or talk about the law-making process to be used to protect the lakes.	Letter's third paragraph contains a statement on what the state should do to protect the lakes and offers at least one specific way the governor/legislature can do something about it.	Letter's third paragraph mentions several specific ways state government and industry can protect the lakes and adds a sense of urgency to the task, in addition to specific data to back up the call to action.

0 = The criteria for a score of 1 have not been met.



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SECTION V

INSTRUCTIONAL RESOURCES

Instructional Resources

ARTICLES

- Holden, Thom. (1991). Lake Superior's Wicked November Storms. *Mariners Weather Log*, 35 (4), 4-11.
- Hopes for Survivors from Lake Ship Fading. (1975, Nov. 11). *Ludington (MI) Daily News*, p. 1A.
- Stirring Up Memories. (1996, November). *Minneapolis (MN) Star-Tribune*, p. 2A.

BOOKS

- Barker, Charles Ferguson. (2005). *The Day the Great Lakes Drained Away*. Atona, Manitoba: Mackinac Island Press.
- Stonehouse, F. (1977). *The Wreck of the Edmund Fitzgerald*. Au Train, MI: Avery Color Studios
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2003). *The Edmund Fitzgerald: Song of the Bell*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2003). *The Legend of Leelanau*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (1999). *The Legend of Mackinac Island*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (1998). *The Legend of Sleeping Bear*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2001). *The Legend of the Lady's Slipper*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2000). *The Legend of the Loon*. Chelsea, MI: Sleeping Bear Press.
- Wargin, Kathy-jo, & van Frankenhuyzen, Gijsbert (illus.). (2004). *The Legend of the Petoskey Stones*. Chelsea, MI: Sleeping Bear Press.

FILM

- Southport Video Productions (Producer). *The Wreck of the Edmund Fitzgerald* [DVD]. (Available from Southport Video Productions, 4609-74th Place, Kenosha, WI 53142.)

LECTURES

- Knox, J. A. and S. A. Ackerman (1996). Teaching the extratropical cyclone with the Edmund Fitzgerald storm. 5th American Meteorological Society Symposium on Education.

OFFICIAL RECORDS

- Department of Transportation, Coast Guard. (1976). *Marine Casualty Report, SS Edmund Fitzgerald; Sinking in Lake Superior on 10 November 1975 with Loss of Life*. US. Coast Guard Marine Board of Investigation Report and Commandant's Action. Report No. USCG 16732/64216. Washington, DC: U.S. Government Printing Office.
- National Transportation Safety Board. (1978). *Marine Accident Report SS Edmund Fitzgerald Sinking in Lake Superior, November 10, 1975*. Report Number: NTSB-MAR-78-3. Washington DC: U.S. Government Printing Office.

OTHER

Map outlines of the region; colored map pencils, markers and/or crayons; dictionary definitions; possible access to a computer for students to look up definitions of key concepts and place names for creating their maps; student journals; a Petoskey stone; art supplies including paper, pencils, crayons, glue, scissors, collage materials if desired; water table, sand, aquarium objects, plastic boats.

PHOTOGRAPHS

Edmund Fitzgerald Wreck, Views (Undated) Retrieved 3-Aug-05 <http://www.jclary.com/fitz/fitz.html>

Yachts Down Under, Views (Undated) Retrieved 3-Aug-05 http://www.yachtsdownunder.com/Edmund_Fitzgerald.htm

SONG

The Wreck of the Edmund Fitzgerald (1977). Lyrics by Gordon Lightfoot, Moose Music Ltd.

WEBSITES

10th Solar System Planet Found. (2005) Retrieved July 30 from <http://www.miami.com/mld/miamiherald/12261083.htm>

Common Good (2005). Retrieved 9-Aug-05 from <http://dictionary.reference.com/search?q=common%20good>

Drain (2005). Retrieved 8-Aug-05 from <http://dictionary.reference.com/search?q=drain>

Economic Activity (2005). Retrieved 4-Aug-05 from <http://dictionary.reference.com/search?q=economic%20activity>

Edmund Fitzgerald And Other Shipwreck And Lighthouse DVD - Videos (Undated). Retrieved 3-Aug-05 from <http://www.edmundfitzgerald.com/>

Edmund Fitzgerald Shipwreck Information and Memorabilia (Undated). Retrieved 3-Aug-05 <http://www.shipwreckmuseum.com/fitz.phtml>

Environment (2005). Retrieved 4-Aug-05 from <http://dictionary.reference.com/search?q=environment>

Folklore, Myth and Legend. (1998). Retrieved July 29 from <http://www.acs.ucalgary.ca/~dkbrown/storfolk.html>

Great Lakes Bathymetry (2005). Retrieved 8-Aug-05 from <http://www.ngdc.noaa.gov/mgg/greatlakes/greatlakes.html>

Landscape (2005). Retrieved 8-Aug-05 from <http://dictionary.reference.com/search?q=landscape>

Legend: Definition. (2005). Retrieved July 29 from <http://dictionary.reference.com/search?q=legend>

Legend. (2005). Retrieved July 29 from <http://en.wikipedia.org/wiki/Legend>

Mackinac Island Press (2005). Retrieved 8-Aug-05 from <http://www.mackinacislandpress.com/>

Myths and Legends of the Sioux. (Undated) Retrieved July 29 from <http://etext.lib.virginia.edu/toc/modeng/public/McIMyth.html>

Pursuit of Happiness (2005). Retrieved 9-Aug-05 from http://en.wikipedia.org/wiki/Life%2C_liberty_and_the_pursuit_of_happiness

The Quiet Invasion. (2005) Retrieved July 30 from <http://www.sfsite.com/02a/qia74.htm>

Shipwreck (2005). Retrieved 5-Aug-05 from <http://dictionary.reference.com/search?q=shipwreck>

The sinking of the SS Edmund Fitzgerald - November 10, 1975 (Undated). Retrieved 3-Aug-05 <http://cimss.ssec.wisc.edu/wxwise/fitz.html>

SS Edmund Fitzgerald Online (Undated). Retrieved 3-Aug-05 <http://www.ssefo.com/>

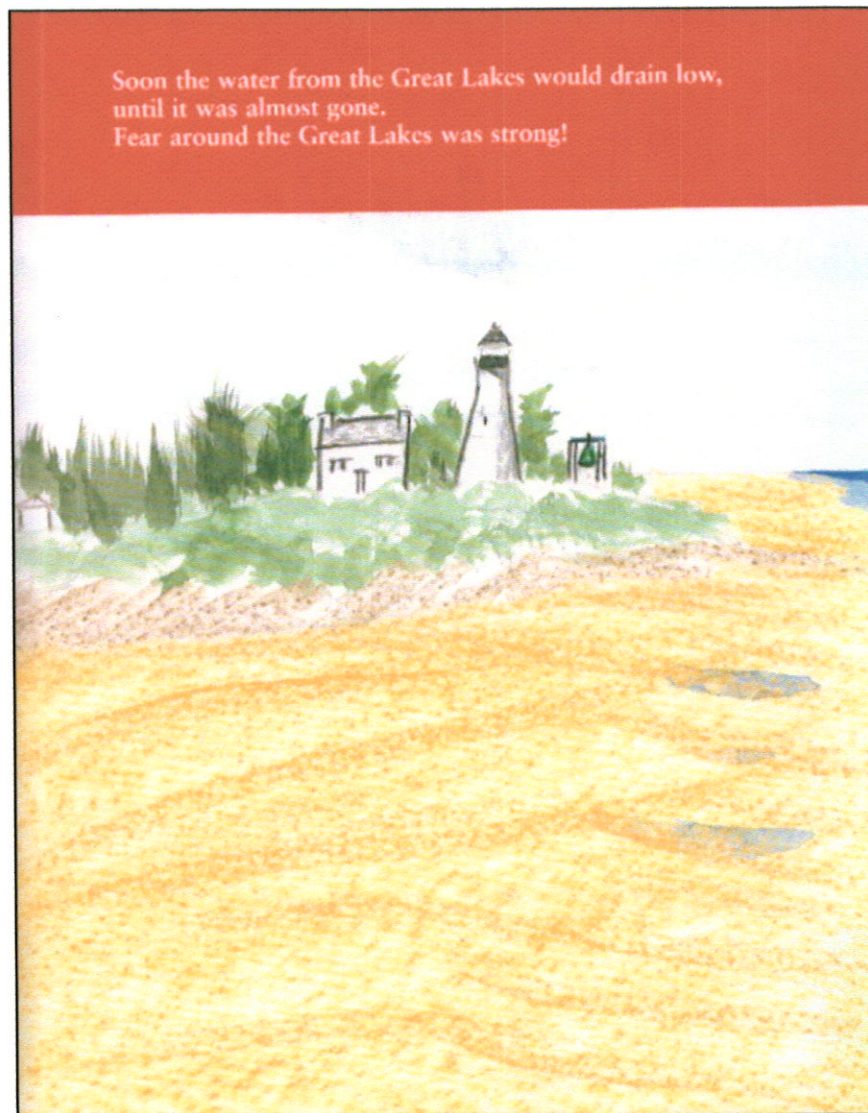
The Story of the Pet Crane. (Undated) Retrieved July 29 from <http://etext.lib.virginia.edu/etcbin/toccer-new2?id=MclMyth.sgm&images=images/modeng&data=/texts/english/modeng/parsed&tag=public&part=34&division=div1>

The Story of the Pet Crow. (Undated) Retrieved July 29 from <http://etext.lib.virginia.edu/etcbin/toccer-new2?id=MclMyth.sgm&images=images/modeng&data=/texts/english/modeng/parsed&tag=public&part=31&division=div1>

Theories about the Sinking (Undated). Retrieved 3-Aug-05 <http://www.ssefo.com/info/theories.html>

Underwater (2005). Retrieved 8-Aug-05 from <http://dictionary.reference.com/search?q=underwater>

Values (2005). Retrieved 9-Aug-05 from <http://dictionary.reference.com/search?q=values>





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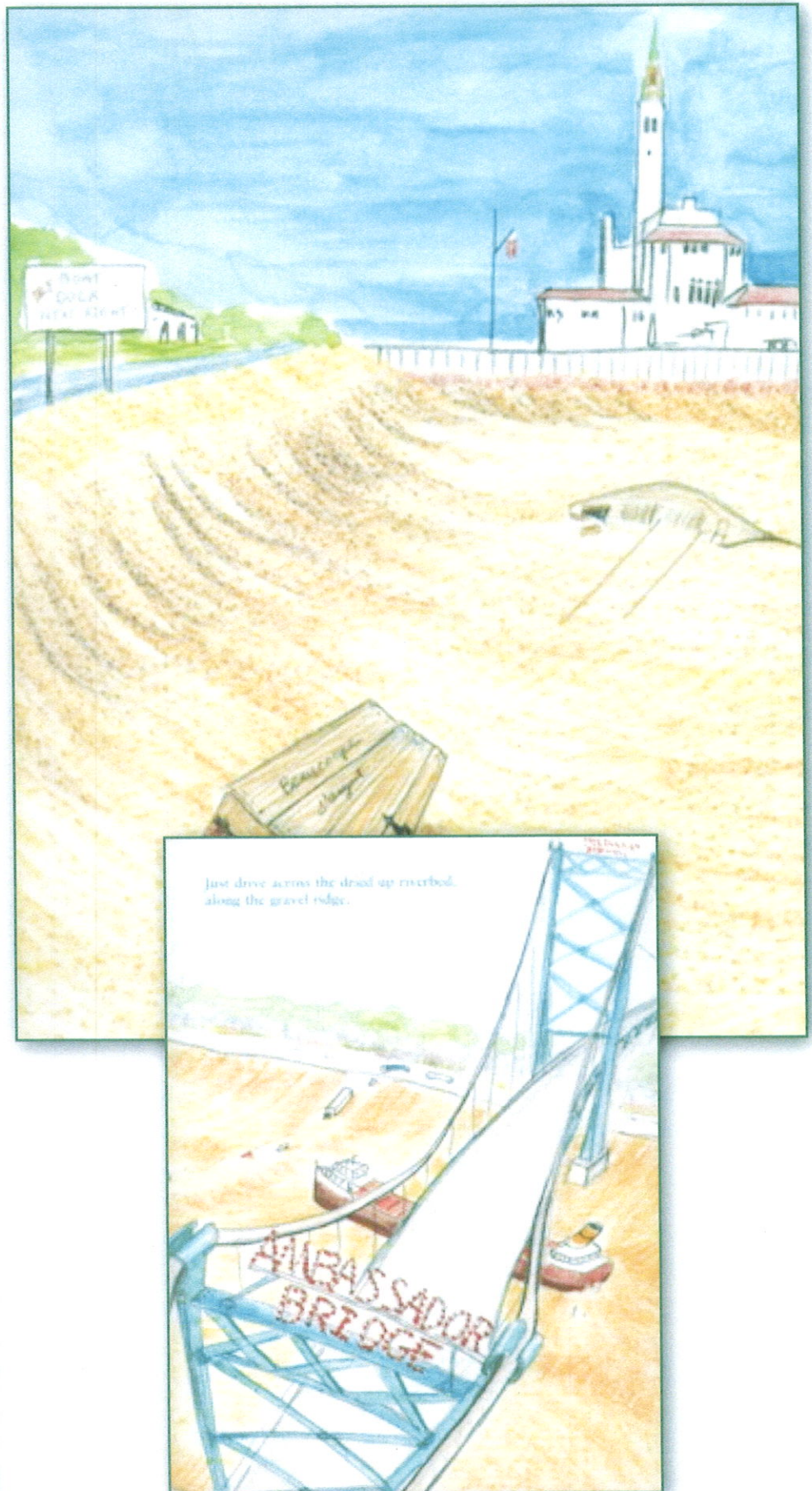
SECTION VI

REFLECTION

REFLECTION

WHAT DID THE TEACHER
LEARN?

Planning this unit isn't just
about teaching students; the
teacher (or would-be teacher)
learns a few things too.



Reflection

WHAT DID I LEARN?

Planning this unit was no small task. There are so many things to consider in just 12 small lessons that it seemed to be a daunting task. I immensely enjoyed doing it however; it connected me in a very real way with social studies as a discipline, with curriculum planning, with research and discovering instructional tools, with aligning my classroom to state standards and, most importantly, with beginning to think about the learners that I will have in my classroom.

I got the idea for the unit after seeing the book *The Day the Great Lakes Drained Away* in a bookstore back in June. It's an interesting and engaging 'what-if' type of book that I believe students will find intriguing. It's at once preposterous and almost believable. It's a perfect sparking board for the central discussion of the unit.

Likewise, with the Sleeping Bear Press *Legend of ...* books, I learned a great deal about the region which I did not know, being a non-native. I believe those books are engaging, colorful, impactful and carry opportunities for deep thinking and understanding. Students will find them fascinating.

In this unit, I began to learn how to weave the main content strands of social studies into a coherent whole and could see the overlap between them all. Just as our world is interweaved, so is social studies, the study of that world. My intent was to focus student thinking in deeper ways than just a superficial 'these are the names of the Great Lakes' way. In-depth study of the legends, inquiry into the sinking of the *Edmund Fitzgerald* and challenging discussion and thinking about the loss of the Great Lakes are the three key steps in this unit which lead students to that deeper, more critical thinking. The unit should help students understand that they are part of the democratic process and they are part of the world around them and that they can have a deep impact on both.

This unit can serve as a great springboard for more social studies units focused on the region; it crosses over into science and language arts, with heavy emphasis on reading and writing. The research methods which can be taught in the unit can be applied to other subject areas, especially science. I would hope that a teacher evaluating this unit would see that it offers the kind of opportunity for critical questioning that all students need.

Reframing helped me make sense of the lesson flow and the fact that key concepts needed to build on each other. Linking assessments to objectives helped focus attention on whether the unit addressed what it set out to address. Particularly helpful was turning in several of the component pieces of the unit ahead of time for grading and feedback. That was very important to understanding the process. Rubrics helped me better understand the assessment process as well.

I would love to teach this unit or see it taught and find out how it holds up 'in the real world.' Hopefully, this year I might get that opportunity. It was great fun, hard work, and invaluable to developing my teacher practice.

— Steve Pollock

