

# Everglades of the North

# THE STORY OF THE GRAND KANKAKEE MARSH

### **SPONSORED IN PART BY:**















Dorene and Jerry Hammes













The Nature Conservancy

A complete list of sponsors is available online.

#### kankakeemarsh.com

Executive Producer-Camera
Pat Wisniewski

Producer-Writer
Jeff Manes

Producer-Camera-Editor Brian Kallies Producer-Camera-Editor
Tom Desch

Educator's Guide developed by Jennifer Davies & Chris Kustusch

# TABLE OF CONTENTS

Educator Overview	2
Lesson 1: Before We Begin	4
Lesson 2: The First People and European Explorers	6
Lesson 3: The Fur Trade and Native American Removal	8
Lesson 4: Early Settlers & Outlaws	12
Lesson 5: Swampland to Farmland	14
Lesson 6: Hunting & Industry	16
Lesson 7: Draining the Marsh	18
Lesson 8: A New Approach	21
Lesson 9: Down the Kankakee	24
Lesson 10: Stories & Characters of the Grand Kankakee Marsh	26
Lesson 11: A Tale of Two Rivers	28
National Standards	29

Images Credits: Lesson 1: Elvin Butterfield, Chicago History Museum. Lesson 2: Vic Johnson, Canadian Archives. Lesson 3: Library of Congress, Tippecanoe Historical Society-George Winter Archive, Vic Johnson. Lesson 4: Tippecanoe Historical Society-George Winter Archive, Vic Johnson. Lesson 5: General Lew Wallace Museum, Kankakee County Historical Society, Brian Busch. Lesson 6: Library of Congress, Starke County Historical Museum, Library of Congress, Guy Carlson & George Hayes. Lesson 7: Walkerton Historical Society, Barker Family, Starke County Historical Society. Lesson 8: William Zimmerman, Sierra Mullican.



#### INTRODUCTION

Everglades of the North: The Story of the Grand Kankakee Marsh is a documentary film about the cultural history and the environmental loss of such a rich diverse ecosystem: the Grand Kankakee Marsh. This 57-minute film covers 300 years of American History and allows students a glimpse into the history of the marsh. It shows how each phase of development has resulted in the loss of almost 95% of the Grand Kankakee Marsh. The program concludes with the various restoration efforts to bring back the grandeur of the marsh. This Educational Resource allows teachers to guide their students deeper into the history and science of the marsh and gain a deeper appreciation of its importance.

#### **OBJECTIVE**

Our goal is for these resources to create a greater public awareness about the effects of development on our natural world.

#### A NOTE TO THE TEACHER

A film has the power to inspire, to provoke wonder. A film doesn't necessarily teach information very well. We believe that *Everglades of the North* will inspire students to gain an appreciation of the beauty, history, and science of the Grand Kankakee Marsh. In order to make this a meaningful, educational opportunity, we have prepared this educational resource to help you guide students through a learning process that will allow them to walk away with specific, concrete knowledge.

To that end, we have two suggestions for using this resource, depending on how much time you plan to devote to the material. The first level is a level of discussion questions and vocabulary words. These are primarily designed to engage the students' basic interest and help them to connect with main ideas of each section. The second level allows students to connect with the information and internalize it. There are extension activities, project ideas, additional videos to watch, and much more. You will notice that many of the activities are specifically project-based in nature. This format should allow you to show the film, help students to select projects based on their connection to certain material, then return when the projects are complete. Thus, you have more flexibility in how you structure your class time.

The activities and lesson plans are aligned to the National Standards in science, social studies, and language arts. We encourage you to share this resource with your colleagues in the hope that there can be some coordination between departments. This design helps students to connect with the material on a deeper level.

#### **EACH LESSON CONTAINS:**

- Summary
- Lesson Objectives
- Key Figures

- Vocabulary
- Discussion Questions
- Activities & Resources



Dear Educators,

It is our hope that you find the enclosed DVD, "Everglades of the North: The Story of the Grand Kankakee Marsh" and it's attached education component useful in your lesson planning. This one-hour documentary chronicles the Grand Kankakee Marsh's native inhabitants, early pioneers, economic impact, loss of natural habitat through dredging and draining, agricultural expansion, and current conservation efforts. Over forty minutes of special video features include a Grand Marsh travel log and other supplemental stories.

Produced by For Goodness Sake Productions LLC, the filmmakers, Tom Desch, Brian Kallies, Jeff Manes and Pat Wisniewski, are proud to present this important piece of American history and ecology. By documenting the specific history of this fabulous wetland paradise and its eventual transformation, we may better understand the world around us.

The producers partnered with several donors to create and distribute the attached educational component to local schools as a way to expand the conversation about land use and our environment. It is through the generosity of these donors that this educational tool is delivered to your classroom at no cost to the school. We believe it would be a good fit in local history, social studies, natural science or FFA courses.

The Diana Chapter of the Izaak Walton League of America, Inc. located on the Kankakee River at Shelby, Indiana partnered with For Goodness Sake Productions, LLC as its fiscal sponsor. The League's endowment funds, as well as other local chapters, were among the many financial donors for this film and the accompanying educational component. Conservation education is foremost in the League's objectives. We hope you enjoy the film and share the story that it's writer Jeff Manes said, "Just needs to be told."

Patricia Wisniewski

For Goodness Sake Production, LLC

Guy Af Carlson

Izaak Walton League of America, Inc.

Diana Chapter, Treasurer

# **LESSON 1:**BEFORE WE BEGIN...

# **SUMMARY (SCENE 1)**

The film opens in 1893, when a public debate leads to the removal of the Momence Rock Ledge and the beginning of the end of the Grand Kankakee Marsh.

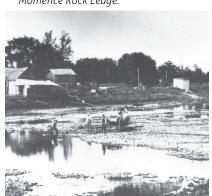
#### **OBJECTIVE**

Students will begin to learn about the Grand Kankakee Marsh and its history.

#### **VOCABULARY**

marsh
wetland
furrier
asunder
ravage
swampland
exploit
squabbling/squabble
obstinate
habitat

### Momence Rock Ledge.



### **GENERAL DISCUSSION QUESTIONS**

- 1. What is a marsh? What is a wetland? Why are they ecologically important?
- 2. Why would the Grand Kankakee Marsh once be called the Everglades of the North?
- 3. What was the debate during the 1890s regarding Momence, IL?
- 4. Why was the World's Fair in Chicago a significant moment in Chicago and US History? Why was Chicago called the "White City"?
- 5. Where and when does the film open? What literary and storytelling devices might the filmmakers be using to draw you into the story? Discuss their effectiveness. How would you open a story like this?

#### **ACTIVITIES & RESOURCES**

#### **Wetlands Activities**

- Activity: Wetland in a Pan epa.gov/gmpo/education/pdfs/Activity-WetlandPan.pdf
- Experiment: Constructed Wetlands Project-PCC Research Project
   pasadena.edu/wetlands\_research/booklets/highschool-frontandback.pdf
- Selection from An Atlas of Biodiversity: "Wetlands" epa.gov/ecopage/glbd/cwatlas/chap5.pdf
- Wetlands 101: Online Course and Quiz: wetland.org/education\_wetland101.htm

#### **Glacier Activities**

- Videos: neok12.com/Glaciers.htm
   Recommended: "Glaciers and their effects" video and "The Action of Ice" video
- Student Reading Link: Glaciers—Glaciers—How Ice Shapes the Surface of the Earth sciencecompanion.com/wp-content/uploads/2009/01/sample\_ecs\_srb\_pp\_57-67.pdf
- Activity: Modeling Glacier Dynamics with Flubber nagt.org/nagt/programs/teachingmaterials/11337.html
- Activity: Glaciers and Icebergs-Discover Education: discoveryeducation.com/teachers/free-lesson-plans/glaciers-and-icebergs.cfm#ada
- Activity: "How Do Glaciers Abrade and Erode the Earth's Surface?" sciencecompanion.com/wp-content/uploads/2009/01/sample\_ecs\_sn\_pp20-25.pdf



#### **General Resources**

#### KANKAKEE RIVER ROUNDTABLE REPORT

This resource is a fantastic comprehensive study of river management. The first section deals with Geography, Geology, and History. As such, it should prove an excellent resource for students in completing many of the projects in this curriculum.

gokankakeeriver.org/download/90/

#### THE KANKAKEE RIVER YESTERDAY AND TODAY

This resource is a reprinted booklet from 1981 that is a summary report of three studies conducted at the request of the State of Illinois. It was intended to relay to local citizens the key results and recommendations stemming from the research. While much of the booklet is technical in nature, it also provides an excellent source for discussion and research.

gokankakeeriver.org/download/97/

#### THE KANKAKEE "MARSH" OF NORTHERN INDIANA AND ILLINOIS

This resource is a report by noted American geographer Alfred H. Meyer, written in 1935. It is an excellent overview of the geology, geography, and history of the marsh. This document is another excellent comprehensive resource to make available to students for discussion and/or research.

kankakeevalleyhistoricalsociety.org/The%20Kankakee%20Marsh%20of%20Northern%20Indiana%20 and%20Illinois.htm

#### **Wetlands Resources**

- Database of Resources: EPA Wetlands Education Materials: This website is a comprehensive list of resources on wetlands education from the EPA: epa.qov/qmpo/education/index.html
- EPA Wetlands Education Materials: World in Our Backyard epa.gov/region1/students/teacher/world.html
- Environmental Concern has a comprehensive wetlands education program: wetland.org/educationhome.htm
- WOW!: The Wonders of Wetlands has been called "the most comprehensive introduction to wetland issues and definitions" by the North American Association for Environmental Education (NAAEE).
   Information on the entire curriculum can be found here: wetland.org/education\_wow.htm
- The Wetlands Reading List is an annotated list of printed material that will supplement lesson plans
  and provide students with suggestions for independent reading on wetlands. The goal of the list is to
  encourage students to explore and develop a respect, understanding, and appreciation for wetlands:
  water.epa.gov/lawsregs/guidance/wetlands/readlist.cfm
- River of Words is a poetry and art contest that focuses on environmental literacy. The organization sponsors a free, annual international poetry and art contest for children in kindergarten through twelfth grade: stmarys-ca.edu/center-for-environmental-literacy/river-of-words



1893 Chicago World's Fair (both images)

# **LESSON 2:**

# THE FIRST PEOPLE AND EUROPEAN EXPLORERS

## **SUMMARY (SCENE 2)**

This portion of the film explores the first people in modern history to inhabit the marsh. It also discusses the early French explorers who encountered and wrote about the marsh.

#### **OBJECTIVE**

Students will learn about the Native people who lived in and around the Grand Kankakee Marsh. They will also learn about early European explorations of the marsh.

#### **KEY FIGURES**

Louis XIV Rene-Robert Cavelier, Sieur De La Salle Potawatomi tribe Miami tribe

#### **VOCABULARY**

confluence fauna
traverse delta
cultivation renewable
flora utilize
hardy endeavor
inhospitable unrivalled
portage utensil
agriculture

### **GENERAL DISCUSSION QUESTIONS**

- 1. When did the first people come to the marsh?
- 2. Why was it called "God's Renewable Pantry?"
- 3. What kind of resources did the early people use in the Grand Kankakee Marsh?
- 4. One of the historians compares the Grand Kankakee Marsh to Saudi Arabia in the 20th century. Why is this a meaningful comparison? Based on this and your own knowledge of history, what do you expect to happen next?
- 5. What was a big incentive for the French to claim more territory in the New World?
- 6. The fact that the French were closely allied with the Native American tribes shaped the politics of the North American continent in the 18th century. How did these politics affect the region?
- 7. Why did the European explorers call the Grand Kankakee Marsh an "Immeasurable treasure-trove of precious resources?" What was this resource they sought?
- 8. Who was involved in Louis XIV's plan to expand the French fur trade?
- 9. What two rivers merge to form the Illinois River?
- 10. Why was it important for LaSalle and his men to get to the Mississippi River?
- 11. On one of LaSalle's last journeys, how did he describe the Grand Kankakee Marsh?

Fur Trade





#### History

- Research a group of people who lived around the Florida's Everglades and how the environment
  affected the way they lived. Use this information and compare and contrast the life of the Native
  Americans before Europeans arrived.
  - Everglades: Early People
  - nps.gov/ever/historyculture/nativepeoples.htm
- Research the French and Iroquois Wars, also known as the Beaver Wars, of the mid-17th century.
   The years of conflict throughout the middle of North America played a critical role during the first contacts with Europeans.
- During the 17th century, the Grand Kankakee Marsh was part of the Northwest Territory, also known
  as Territory Northwest of the River Ohio. It covered all of the modern states of Ohio, Indiana, Illinois,
  Michigan, Wisconsin, and the northeastern part of Minnesota. Research the history of this territory
  and the role that the Grand Kankakee Marsh played.
- Research the life and expeditions of Rene-Robert Cavelier, Sieur De La Salle. What were some of his accomplishments? What were some of his discoveries? What happened to him? Helpful Resources:
  - civilization.ca/virtual-museum-of-new-france/the-explorers/rene-robert-cavelier-de-la-salle-1670-1687/
  - greatlakesexploration.org/index.htm
- Map Activity: Plot the expeditions of La Salle on a map. What were the different motivations for each of his three main expeditions? How successful was he?

#### Presentation/Research Activity: History of the Grand Kankakee Marsh

REPORT: THE KANKAKEE "MARSH" OF NORTHERN INDIANA AND ILLINOIS

kankakeevalleyhistoricalsociety.org/The%20Kankakee%20Marsh%20of%20Northern%20Indiana%20 and%20Illinois.htm

Using the report above as a starting point, develop a specific piece of the Grand Kankakee Marsh story through a paper or a presentation. This report is an excellent summary of much of the ideas in the film and should allow for multiple ideas to be generated.



Top: Kankakee River, Above: Fur Trade.

# **LESSON 3:**

# THE FUR TRADE AND NATIVE AMERICAN REMOVAL

## **SUMMARY (SCENE 3)**

This segment gives students an outline of the history of the fur trade in the Grand Kankakee Marsh. It also gives students an overview of the history of the removal and relocation of Native Americans from the Grand Kankakee Marsh to lands west of the Mississippi. River.

#### **OBJECTIVE**

Students will learn about the history of the fur trade and how it affected the people living in the Grand Kankakee Marsh.

Students will learn about the forced removal of Native Americans living around the Grand Kankakee Marsh.

#### **KEY FIGURES**

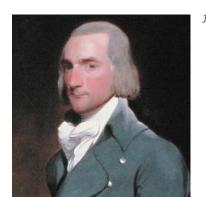
John Jacob Astor Alexis Coquillard Noel LeVasseur Gurdon Saltonstall Hubbard Chief Menominee Watch-e-kee

#### **VOCABULARY**

voyageur cede bountiful encroachment misnomer militia

### **GENERAL DISCUSSION QUESTIONS**

- 1. What was the War of 1812? Who fought the war? Why might it have impacted life in and around the marsh?
- 2. What effect did the War of 1812 have on the fur trade?
- 3. What was "brown gold"? Why did it get its name? Why was fur such a lucrative business?
- 4. Who was John Jacob Astor? What is he known for?
- 5. Who was Alexis Coquillard? What is he known for?
- 6. Who was Noel LeVasseur? What is he known for?
- 7. Where was the Big St. Joseph Station Trading Post? Why was it an important part of the fur trade?
- 8. Where was the Bunkum Trading Post? Why was it an important part of the fur trade?
- 9. Who was Gurdon Saltonstall Hubbard? What was the difference between Hubbard and the other men who traded with the Native Americans? What was his "nickname"? How did he earn this name?
- 10. Why did Hubbard think the fur trade would end? Whom did Hubbard marry?
- 11. What contributions did Hubbard make to the city of Chicago?
- 12. What was the effect of the 1832 Treaty of Tippecanoe?
- 13. What was the effect of the 1833 Treaty of Chicago?
- 14. What chief refused to sign the treaties and was forced out of his village?
- 15. What was the Trail of Death? Why was it called the Trail of Death? Why is this a misnomer?
- 16. Once the Native Americans were removed, where were they taken? Why was this new area inconsistent with their way of life?



John Jacob Astor



Fur Trade

#### Research Ideas for the Fur Trade

- Research the fur trade in North America. The following resources should help you get started. Consider the following questions in your research: Although people traded furs for thousands of years, when did the fur trade in North America really begin to grow in the European market? Who were some of the most notable figures of the fur trade? What were the effects of the fur trade? When and why did the fur trade begin to decline?
  - Article: The Beaver Fur Trade lib.umn.edu/bell/tradeproducts/beaver
  - Article: History of the Fur Trade montanatrappers.org/history.htm
  - · Beaver and other Fur Trades wmich.edu/fortstjoseph/docs/fur-trade2012.pdf
  - DVD Transcript: Fur Trade on The Great Lakes: uppermidwestmedia.com/dvds/1a-all-1/1a-all-1.html
- Research and discuss a key figure in the fur trade during this period. What were their key motivations? What did they accomplish? How were they regarded by their peers? What was their legacy?
- Compare Jean Bapiste Point du Sable and Gordon S. Hubbard. Describe their qualities that made them great fur traders.
- Research the French and Indian War and the American Revolution, focusing specifically on how each of these conflicts affected the Fur Trade for both Europeans and Native Americans. Be sure to take into account the different perspectives of each side the Native Americans, French, and the British.
- Research and analyze the impact of over-trapping beavers in North America. Have students include
  answers to some of the following questions in their findings: What is being done to protect beavers?
  Why do people think they are a nuisance? What problems do they cause? What benefits do they
  provide? What is the current state of the beaver population in the country?

#### Andrew Jackson's Speech to Congress on Indian Removal

nps.gov/museum/tmc/MANZ/handouts/Andrew\_Jackson\_Annual\_Message.pdf

Provide copies of Andrew Jackson's Indian Removal Policy to the class – read as a class or individually.

Discuss Jackson's policy.

What were the reasons for it and the effects that followed?

How did this type of policy differ from previous policies? How was it similar?

In addition to the Trail of Death, what other force removals took place?

Once the Native Americans had been removed to lands west of the Mississippi, what happened to them in later years?





Far left: : Potawatomi Burial Procession, Left: Chief Menominee

# **ACTIVITIES & RESOURCES (continued)**

#### **Project: The Burden of History**

"HISTORY IS WRITTEN BY THE VICTORS." - attributed to Prime Minister Winston Churchill

This activity allows students to place themselves in the midst of an actual, historical political debate, that of dealing with the tensions between Native Americans and settlers. Assign different members of the class a viewpoint from the perspective of one of the following suggestions. Feel free to add your own.

- · An Indiana congressman from the state legislature
- · A US Senator from Indiana
- A prospective farmer who has just arrived from Ohio to build a home.
- · A general store owner from South Bend
- A fur trader
- Chief Menominee
- · A Potawatomi mother of two
- · A Potawatomi warrior with no family
- · A Miami girl 14 years old

Have students research their particular viewpoint to understand the hopes, dreams, fears, and motivations of their chosen individual. Encourage students to dig deeply to relevant details about the individual's life. Have them present their findings in a debate, a persuasive essay, a series of journal entries, a letter, or another format.

#### **Indian Removal Resources**

- Article: Kankakee Valley Historical Society: "Pioneer History, The Kankakee River" kankakeevalleyhistoricalsociety.org/schmal/kankakee1.htm
- Scholarly Papers from the Michigan Academy of Science, Arts, and Letters: michigan.gov/documents/deq/GIMDL-MASALV21B\_302486\_7.PDF
- Library of Congress website on the Indian Removal Act: loc.gov/rr/program/bib/ourdocs/Indian.html
- Wikipedia page on Indian Removals in Indiana: en.wikipedia.org/wiki/Indian\_removals\_in\_Indiana
- Selection from An Atlas of Biodiversity: "People on the Land" epa.gov/ecopage/glbd/cwatlas/chap7.pdf
- Website Article on The Indian Removal Act and the Trail of Tears: thefurtrapper.com/trail\_of\_tears.htm

## Webpage on the Potawatomi Trail of Death

This site (usd116.org/mfoley/trail/trail.html) has multiple primary source, highlighted below:

#### **JOURNAL ENTRIES**

- George Winter: usd116.org/mfoley/trail/winter2.html
- Jesse C. Douglas: usd116.org/mfoley/trail/douglas.html
- Father Benjamin Marie Petit: usd116.org/mfoley/trail/petit.html#baptism

#### NEWSPAPER ARTICLES ABOUT THE TRAIL OF DEATH:

- Sangamon Journal: usd116.org/mfoley/trail/newspaper1.html
- Quincy Whigs: usd116.org/mfoley/trail/newspaper2.html
- There is a larger Teacher Resource included as well: usd116.org/mfoley/trail/teachers.html

Early Settlement



# **LESSON 4:**EARLY SETTLERS & OUTLAWS



Counterfeiters

# **SUMMARY (SCENE 4)**

This segment gives students an overview on the conditions of the Grand Kankakee Marsh when pioneers and farmers came to settle the area. It also explores frontier justice during this period, including both outlaws and the Jasper Rangers.

#### **OBJECTIVE**

Students will learn how the early pioneers lived in the Grand Kankakee Marsh during the late 19th century. In addition, they will learn about those living outside the law and the steps taken to correct the problem.

#### **KEY FIGURES**

Samuel Goodnow Thomas Rogers Barker Beaver Lake Bogus Island Mike Shafer Jasper County Rangers

#### **VOCABULARY**

noxious entice vigilante inducement entrepreneur anonymity destitute epicenter stint impenetrable syndicate perpetrator inhospitable endeavor counterfeit imbibe sophisticated

## **GENERAL DISCUSSION QUESTIONS**

- 1. How did the first settlers describe the marsh? What did they mean that it was "land that God forgot to finish"?
- 2. What were some of the hardships of the marsh? Why do you think the geography of the marsh was a challenge?
- 3. What was the largest lake in Indiana at the time? How do you suppose it got its name?
- 4. How did Samuel Goodnow describe the marsh? What did he mean?
- 5. What resources attracted Thomas Rogers Barker to the marsh?
- 6. How did Barker's account differ from Goodnow's account? What do you suppose were the reasons for such different views? How do these different descriptions influence your perception of a wetlands ecological system?
- 7. Where was the main criminal hideout in the marsh? Where was it located? How did it get its name?
- 8. How did the outlaws evade capture? How did they travel to their hideout? What was that method called?
- 9. What was the story of Mike Shafer?
- 10. What measures did the Indiana legislature take to combat the spread of criminal activities in the marsh?
- 11. Who were the Jasper Rangers? What was their code word? What was their motto?
- 12. How were the Jasper Rangers connected to other key figures in this section?
- 13. Discuss vigilante justice. How has it changed since this time? Where does it exist today? Is it effective? Is it ethical?



Potawatomi

#### **Activity: Changing Boundaries**

Using a map of Lake County, IN, have students trace the changes described in the "Boundaries Old and New" article. Who were some of the important figures in the development of boundaries? What did each of them contribute? How did the boundaries change throughout the years? What were some of the reasons? How does this story contribute to your understanding of history at a local level?

#### Map of Lake County:

zipmap.net/Indiana/Lake\_County.htm

Article: Kankakee Valley Historical Society Archives: "Boundaries, Old and New" kankakeevalleyhistoricalsociety.org/schmal/boundaries.htm

#### **Presentation Activity: Beaver Lake**

Article: Mysterious Beaver Lake lowellpl.lib.in.us/s2005may.htm

Using the article "Mysterious Beaver Lake," as well as your own sources, tell the story of Beaver Lake to the class. You can use any method you choose, but be sure to include key events. Use these events to shape your story. Consider the following questions: When does the story of Beaver Lake begin? When does it end? Who were some of the key figures to impact the lake? What motivated their actions? Consider using a film, skit, poster, speech, letters, diaries, etc.

#### **Presentation Activity: Bogus Island**

Articles on Bogus Island

lowellpl.lib.in.us/bogusis.htm

Bogus Island has a rich history, filled with many colorful characters. Using the following articles, create a narrative and present it to the class. It must have some connection to Bogus Island, but be as creative as possible. Consider using a film, skit, poster, speech, letters, diaries, etc. to help "sell" your story.

Bogus Island Bandits







# **LESSON 5:**SWAMPLAND TO FARMLAND



**Farmland** 

## **SUMMARY (SCENE 5)**

This segment gives students an overview on early efforts to transform swampland throughout the country into arable farmland. It also details how specific individuals affected the marsh.

#### **OBJECTIVE**

Students will learn about the Swampland Acts of 1849 and 1850 and the effect they had on the Grand Kankakee Marsh.

#### **KEY FIGURES**

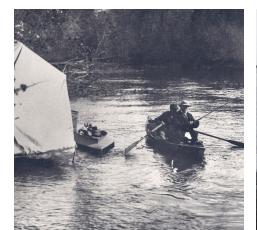
Conner Dowd Lemuel Milk Joseph "Pap" Tetter Lew Wallace Abraham Lincoln

#### **VOCABULARY**

arable avid
tranquil embezzled
waterfowl savannah
predecessor Renaissance
cattle baron man
disillusioned tantalizing

## **GENERAL DISCUSSION QUESTIONS**

- 1. What were the Swamp Land Acts of 1849 and 1850? Why were they enacted?
- 2. How did the Swamp Land Acts affect wetland ecological areas in the United States?
- 3. How much did an acre of land cost in 1854 in the state of Indiana? How much do you think land costs now?
- 4. What system did the federal government put in place to administer the land grants?
- 5. What was the land sale revenue supposed to pay for? What actually happened to the money from the land sales?
- 6. Why did people want to drain the marsh? What method were people using to drain the marsh?
- 7. What effect did the Illinois Central Railroad bridge have on the marsh?
- 8. Discuss Lemuel Milk as a successful businessman. What were his strengths and weaknesses?
- 9. What happened to the marsh during the Civil War?
- 10. Who was Joseph "Pap" Tetter? How did he utilize the marsh?
- 11. How did the marsh play a role in helping slaves escape to freedom? What was the Underground Railroad?
- 12. Who was General Lew Wallace? What is Lew Wallace best known for today? How did he describe the marsh?





Far left: General Lew Wallace, Left: Kankakee, Illinois

#### **Activities: The Underground Railroad**

The story of Joseph "Pap" Tetter provides an excellent entry point into the discussion of both slavery and the Underground Railroad. These are two online activities that help students to explore these important pieces of American History.

Online Activity: "The Underground Railroad: Escape from Slavery" teacher.scholastic.com/activities/bhistory/underground\_railroad/

Online Interactive: The Underground Railroad: The Journey education.nationalgeographic.com/education/multimedia/interactive/the-underground-railroad/?ar\_a=1

#### Project/Activity: The Story of Pembroke Township

Using the links below as a starting point, research Joseph "Pap" Tetter and the story of Pembroke Township. Consider the following questions: Why is Pembroke so unique? How did it begin? Who was Joseph "Pap" Tetter? What were his contributions before and after settling in Pembroke? Why have so many people studied and written about Pembroke? Present your findings to the class as a series of journals from different individuals who could have lived in Pembroke from the time it was first settled until today. As an alternative, tell the story of Tetter or Pembroke through a live story, a play, or some other creative means.

- Pembroke Heritage pembroketownshipillinois.com/Pembroke\_Heritage.html
- Article: Pembroke Township: The Lost Corner of the Kankakee Sands web.extension.illinois.edu/illinoissteward/openarticle.cfm?ArticleID=442
- Article: The Ongoing Poverty of Pembroke, Illinois chicagomag.com/Chicago-Magazine/The-312/September-2011/The-Ongoing-Poverty-of-Pembroke-Illinois/
- Article: From Farm to Food Desert chicagoreader.com/chicago/chicago-food-deserts-hopkins-park-black-farmers/Content?oid=2272825

#### **Activity: Marsh Market**

wetland.org/downloads/Marsh%20Market.pdf

This is a sample activity from WOW!: The Wonders of Wetlands, which has been called "the most comprehensive introduction to wetland issues and definitions" by the North American Association for Environmental Education (NAAEE). Information on the entire curriculum can be found here: wetland.org/education\_wow.htm

This activity focuses on food webs and the interconnectedness of natural resources within a wetland ecology.





Top: General Lew Wallace, Above: Underground Railroad

# **LESSON 6:** HUNTING & INDUSTRY



Punt Gun

# **SUMMARY (SCENE 6)**

This segment gives students an overview of recreational hunting within the Grand Kankakee Marsh. In addition to sport hunting, market hunting was also prevalent. During this time, many new industries sprang up to exploit the vast natural resources of the marsh.

#### **OBJECTIVE**

Students will learn how the Grand Kankakee Marsh came to be used for its abundant supply of natural resources. They will also learn about the supply and demand of the period as a window into the lifestyle of those who lived at that time.

#### **KEY FIGURES**

James Whitcomb Riley
George Pullman
Studebaker Brothers
Benjamin Harrison
Theodore Roosevelt
Grover Cleveland
Prince Albert Edward
Marshall Field
Jenny Conrad
Alexander "Kankakee Ned" Barker

#### **VOCABULARY**

inexhaustible en masse bayou slough differentiate influx assemblage bounty resilience lucrative

## **GENERAL DISCUSSION QUESTIONS**

- Discuss the various animal life within the marsh. What kind of hunters would this attract? Where in the US does hunting occur today?
   What do you think are the main differences between then and now?
- 2. Who came to the marsh to hunt? Why would hunting be considered a status sport?
- 3. Which presidents came to the marsh?
- 4. What type of animals did market hunters seek? What was the path that these animals followed? Does market hunting/fishing still occur today? If so, where?
- 5. Why was the Grand Kankakee Marsh known as "Chicago's Food Pantry"?
- 6. What other industries in the marsh affected wildlife?
- 7. What industries developed as a result of other natural resources in the marsh?
- 8. Which disastrous event produced a huge demand for lumber from the Grand Kankakee Marsh?
- 9. What was "the opening of the waters"? How did Jenny Conrad describe the event?
- 10. Who was "Kankakee Ned?" What was his opinion about the draining of Beaver Lake?
- 11. What was the effect of draining Beaver Lake?

Egret Hunting Cartoon



#### **Project: Logging and Ecology**

The film raises the point that the Grand Kankakee Marsh was an excellent source of natural resources, one of which was timber. The timber and logging industry is one that still plays an important economic role today. On the other hand, there are groups who seek to ensure that forests are maintained through sustainable practices. Below are resources specific to Indiana to help students begin research on both sides of the issue. Have them present their findings in a debate, a persuasive essay, or another format.

Article: The History of Logging in the United States

history.com/topics/history-of-logging

Forests of Indiana: Their Economic Importance

na.fs.fed.us/spfo/pubs/forestprod/indiana\_forest04/forests\_of\_in04.htm

Indiana Forest Alliance: State Forest Campaign:

indianaforestalliance.org/state.html

#### **Project: The Ice Industry**

The film briefly discusses the ice industry in the Grand Kankakee Marsh. Research the ice industry in the United States, by using the resources below to get started. This activity is an excellent opportunity to place students in the middle of history and really explore life before modern conveniences. Have students present their findings through a speech, paper, skit, or some other creative format

**Hudson River Valley Ice Houses** 

hudsonrivervalley.org/library/pdfs/articles\_books\_essays/NatIceIndustrydicehousepaper.pdf

Excerpt from the 1918 Book of Knowledge: How We Get Our Ice

iceharvestingusa.com/1918bookofknowledge/1918bookofknowledge.html

Article from 1894: A Day on an Ice Field

iceharvestingusa.com/demorest/newdemorests1.html

#### **Project: The People of History**

The film briefly touches on the lives of Jenny Conrad and "Kankakee Ned" Barker. Using this section and "Stories and Characters of the Grand Kankakee Marsh, discuss the similarities and differences between the two. How were they successful? How were they unsuccessful? What is the legacy of each?

Article: Kankakee Valley Historical Society Archives: More About Conrad, the Ghost Town kankakeevalleyhistoricalsociety.org/schmal/conrad.htm

Ned Barker Remembers Beaver Lake

ingenweb.org/innewton/newcomer/1994-1996/1995/autumn%201995.pdf

The film also mentions several "celebrities" who came to the marsh to hunt. Research their lives and discuss their contributions.







Above (top to bottom): Sportsmen, Egret Feather Fashion, Sportsmen

# **LESSON 7:**DRAINING THE MARSH



Dredge

## **SUMMARY (SCENE 7)**

This segment gives students a history of the draining efforts that occurred in the Grand Kankakee Marsh and the channelization of the Kankakee River.

#### **OBJECTIVE**

Students will learn the major developments and chronology of the draining of the Grand Kankakee Marsh.
Students will learn about the environmental impact of draining the Grand Kankakee Marsh.

### **KEY FIGURES**

John Campbell Maurice Thompson

#### **VOCABULARY**

disfigures impediment dredge allocate gargantuan objectivity easement meandering land speculators excavate siphon

### **GENERAL DISCUSSION QUESTIONS**

- 1. What role do you think the draining of Beaver Lake had on the effort to drain the whole marsh? Why?
- 2. What was the LaPorte Land Company? Why did it support draining the marsh?
- 3. Why did John Campbell use the word "disfigures" to describe the Grand Kankakee Marsh?
- 4. What was Campbell's plan to drain the Grand Kankakee Marsh?
- 5. What machine made digging ditches easier and faster?
- 6. Why would digging ditches have helped to drain the marsh?
- 7. Why do you think these efforts failed?
- 8. Why was Indiana interested in removing the limestone ledge on the Kankakee River? Why was this a problem for the people in Illinois? Do you think Indiana should have been allowed to remove the ledge?
- 9. Even though the Army Corps of Engineers doubted that removing the ledge would help with drainage, why do you think that the state of Indiana went forward with the plan?
- 10. Think back to the beginning of the film. What literary and storytelling devices come into play in this section? Was the conflict resolved?
- 11. What did developers do to the Kankakee River in Indiana?
- 12. The debate over protecting wildlife vs. profit and progress is clearly not a new one. But as we learned in the previous section, the wildlife and natural resources of the marsh were themselves profitable. How do you think the balance shifted to such a degree that draining the marsh was looked to be more profitable?
- 13. What happened to the wildlife after the draining of the Grand Kankakee Marsh?
- 14. Who was "Martha"? What happened to her?
- 15. What happened during the "Roaring Twenties" in the marsh?

#### **An Active Debate**

The goal of this project is to help students understand that there are multiple sides and competing interests in solving problems in the real world. Students frequently are concerned with "What's the right answer?" This is an opportunity to place students into a practical, active debate. Have students research and compare the positives and negatives of draining the Grand Kankakee Marsh. Consider the following questions:

What were the effects (both positive and negative) on Indiana?

What were the effects (both positive and negative) on Illinois?

What was the effect on wildlife?

What was the effect on agriculture?

What was the financial impact? What were the losses and gains?

What was the cultural impact?

What is happening today with the Grand Kankakee Marsh?

What are the plans to address these issues?

#### **Wetlands: The Bigger Picture**

Wetlands of the United States: A Century of Wetland Exploitation npwrc.usgs.gov/resource/wetlands/uswetlan/century.htm

Using the above article as a starting point, encourage students to expand their discussion of wetlands in the United States. Why are wetlands important as a part of the American ecosystem? Is there a specific financial or cultural benefit that we need to consider? What states are involved in the discussion? What is being done at the federal level? What is being done at the state level? What is being done at the local level? What questions should we be asking to ensure that we make fair and balanced decisions? Consider a debate, essay, or other project format to engage students in these and other questions of natural resource management.



Dredge

# **ACTIVITIES & RESOURCES (continued)**

#### **Project: The Migratory Bird Treaty Act**

Using the resources here as a starting point, research the Migratory Bird Treaty Act (MBTA), both its history and its legacy. Present your findings to the class as a paper, a speech, a story, a film, or some other creative means. Consider the following questions: Why was the MBTA necessary? What further legislation has been put in place to protect birds? Why is the MBTA sometimes inconvenient for people? How is the MBTA enforced today?

#### The Migratory Bird Treaty Act: Its Origins and Impacts

dgif.virginia.gov/virginia-wildlife/feature-spotlight/pdfs/nov-2011bird-act.pdf

#### Thesis on the Migratory Bird Act of 1916

bc.edu/dam/files/schools/law/lawreviews/journals/bcealr/31\_3/07\_FMS.htm

#### Wikipedia Page

en.wikipedia.org/wiki/Migratory\_Bird\_Treaty\_Act\_of\_1918

#### **Project: Tourism in America**

At several points in the history of the Grand Kankakee Marsh, one of the ways to make money was from the tourism industry. Use the story of the Grand Kankakee Marsh to discuss the history of tourism in America. Consider the following questions: Why is tourism such a valuable industry? Are there any states that rely on tourism as their primary industry? How has tourism changed in America? What kinds of destinations did people seek in the 19th century? The early 20th? The late 20th? The 21st? What does the future hold for tourism in America? Present your findings to the class as a paper, a speech, a series of travel brochures, a series of journal entries, a film, a play, a poster, or some other creative means.



Dredge

# **LESSON 8:**A NEW APPROACH

## **SUMMARY (SCENE 8)**

This segment gives students a brief history of restoration efforts in the marsh, as well as a brief history of the environmental movement in America.

#### **OBJECTIVE**

Students will learn about the various restoration efforts that are helping to rebuild the marsh.

#### **KEY FIGURES**

Franklin D. Roosevelt William Cameron Aldo Leopold Rachel Carson

#### **VOCABULARY**

industrialist
eking/eke
dividend
percolated
comprehensive
corps
remnant



# **GENERAL DISCUSSION QUESTIONS**

- 1. What happened to the Great Plains during the Great Depression? How do you think the marsh was affected?
- 2. What was the New Deal? What was the Civilian Conservation Corps?
- 3. What was William Cameron's plan to help preserve a part of the marsh?
- 4. Who were two important figures in the early environmental movement?
- 5. What were some of the changes that occurred to help protect the environment?
- 6. What happened in 1972 for wetlands all across the country?
- 7. What happened in 1979 for the Grand Kankakee Marsh, specifically in Lake County, Indiana?
- 8. Why are wetlands important? What does it mean to say that wetlands are "Mother Nature's kidneys"?
- 9. Why is it important for farmers to practice good conservation methods while farming on the former marshland?
- 10. What percentage of the Grand Kankakee Marsh is gone?
- 11. What organization was formed in 1994 to help restore part of the Grand Kankakee Marsh?
- 12. What is the Nature Conservancy doing to help restore parts of the Kankakee Sands?
- 13. What is the significance of Pokagon Band of Potawatomi's restoration effort?
- 14. What animals are returning to the marsh?
- 15. How has the perception of the marsh changed over the years? How does this relate to how it is treated?
- 16. What is your immediate reaction to the film Everglades of the North: The Story of the Grand Kankakee Marsh?
- 17. Do you think the Grand Kankakee Marsh is important to the United States? If so, why? If not, why not?
- 18. What can be done to protect and preserve the Grand Kankakee Marsh in the future? How can you help?

Sandhill Crane

#### **Research Activity: Protecting the Environment**

Research the history of the EPA and the Clear Air Act and the Clean Water Act. Present your findings using an essay, a speech, a film, or some other creative means. Consider the following questions: How did the Environmental Protection Agency come into being? Why is it an important organization? How do the two pieces of legislation help to protect our natural resources? What has been done since then? What are the current challenges to the environment? How can you help?

#### **Research Activity: Wetland Protection Legislation**

water.usgs.gov/nwsum/WSP2425/legislation.html

Research how wetlands are protected and how they are not, using the Wetland Protection Legislation document. Have students discuss the reading and use the questions to guide their research.

What does the Federal Government do to help protect wetlands?

List the five government agencies that are responsible for wetlands? What are their missions?

What are the conflicting interests that still exist today?

Why do we, as a community, need to be educated about wetlands and enforce polices and programs to protect wetlands?

#### **Research Activity: The New Deal**

Research The New Deal and the Civilian Conservation Corps and discuss the impact of both. Consider the following questions: Why was the New Deal necessary? Why was it called the New Deal? What was the Civilian Conservations Corps? How did it differ from other New Deal programs? What was the lasting impact of the New Deal and the Civilian Conservation Corps? Present your findings to the class using a paper, a speech, a series of journal entries written by someone in the Civilian Conservations Corps, or some other creative means.



#### Research Activity: Sustainable Agriculture

Using the following as a starting point, have students explore sustainable agriculture and no-till farming. Have them consider the positives and negatives of each. Discuss why people would choose one method over another to grow crops. Discuss how economic factors play a role in ecological decisions.

National Sustainable Agriculture Coalition - Wetlands Reserve Program sustainableagriculture.net/publications/grassrootsguide/conservation-environment/wetlands-reserve-program/

#### No-Till Farming

research.wsu.edu/resources/files/no-till.pdf

Great Egret







Clockwise from top left: Pileated Woodpecker, Great Blue Heron, Beaver

# **LESSON 9:**DOWN THE KANKAKEE

# **SUMMARY (SCENE 9)**

This short film discusses key landmarks in and around the Grand Kankakee Marsh.

#### **OBJECTIVE**

Students will learn about the rich cultural landmarks along the Kankakee River.

#### **KEY LANDMARKS**

South Bend
Studebaker Brothers
LaPorte County
Starke County
Dunn's Bridge
Jasper/Pulaski Fish and Wildlife Area
Baum's Bridge
Momence Wetlands

#### **VOCABULARY**

vestiges confluence antique borough headwaters expeditionary riperian

### **GENERAL DISCUSSION QUESTIONS**

- 1. Where does the Kankakee River start? What is notable about that location?
- What are the Studebaker Museum and the Northern Indiana Center for History? What do you think they feature in each?
- 3. What famous collection is featured in the LaPorte County Historical Society? Why is it distinctive?
- 4. What used to happen to settlers near English Lake? Why? How did this impact the drawing of the Stark County line? How has this changed?
- 5. What is the Starke County Historical Society? What famous location does it occupy? What notable piece of history does it feature in its collection?
- 6. What story surrounds the construction of Dunn's Bridge? What has new historical research revealed?
- 7. What annual event takes place at the Jasper/Pulaski Fish and Wildlife Area?
- 8. Why do you think Baum's Bridge was an advantageous crossing in the marsh?
- 9. What is the Porter County Museum of History? What piece of history lives in its collection? What other notable features exist in the town?
- 10. How did Devil's Hole get its name? What happened to it?
- 11. What is the Grand Kankakee Marsh County Park? Why is it distinctive? Why is it important?
- 12. Why do we use rivers to divide the land? Can you think of other notable examples of this?
- 13. What was distinctive about Sumava Resorts? What was the big draw of the area? What remains to this day as a reminder of that time?
- 14. How do you think Lake Village got its name? Why is it no longer applicable?
- 15. Why is Conrad a ghost town? Who founded it? What is there now?
- 16. What is the Momence Wetlands? How is this site pivotal to the story of the Grand Kankakee Marsh?
- 17. What piece of history is located near Kankakee? Why is it significant?
- 18. What is distinctive about the Kankakee County Historical Society?
- 19. What notable building is an extension of the Kankakee County Museum?
- 20. What do the locals call the Bourbonnais Geologic Area? Why?
- 21. What notable sites lie in Kankakee River State Park?
- 22. What is the Dresden Generating Station? What is significant about it?
- 23. Where does the Kankakee River end? What happens to it?

The following is a list of some of the places and organizations mentioned in the film. You are encouraged to explore their resources as a means to spark discussion with your students.

Studebaker Museum studebakermuseum.org/

Northern Indian Center for History centerforhistory.org/

LaPorte County Historical Society

laportecountyhistory.org/

Jasper County Historical Society jchsmuseum.blogspot.com/

Jasper/Pulaski Fish and Wildlife Area

in.gov/dnr/fishwild/3091.htm

**Newton County Historical Society** 

ingenweb.org/innewton/NewtonCountyHistoricalSociety.html

Starke County Historical Society

starkehistory.com/

Porter County Museum of History

portercountymuseum.org

Lake County Historical Museum

cpcourthouse.com

Grand Kankakee Marsh County Park

lakecountyparks.com/parks/grand\_kankakee\_marsh.html

Frank Lloyd Wright - B. Harley Bradley House

wrightinkankakee.org/

Kankakee County Museum

kankakeecountymuseum.com/Site\_2/Home.html

Kankakee Valley Historical Society

kankakeevalleyhistoricalsociety.org/

**Bourbonnais Grove Historical Society** 

bourbonnaishistory.org/

Bourbonnais Geologic Area

btpd.org/1PerryFarmPark.html

Kankakee River State Park

dnr.state.il.us/lands/landmgt/parks/r2/kankakee.htm

Kankakee Sands

nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/kankakee-sands-in-il.xml

Kankakee River Basin Commission

kankakeeriverbasin.org/index.html

Kankakee River Awareness Program

gokankakeeriver.org/

# **LESSON 10:** STORIES & CHARACTERS OF THE GRAND KANKAKEE MARSH

# SUMMARY (SPECIAL FEATURES)

These vignettes explore some of the more colorful stories and characters throughout the history of the Grand Kankakee Marsh. This lesson also includes the short film "The Old Timer Told Me So."

#### **OBJECTIVE**

Students will learn about the stories and characters that are part of the history of the Grand Kankakee Marsh. This will help them to understand that history is made up of personal stories about real people.

#### **KEY FIGURES**

Richard Schmal
Spooney Granger
Milton "Bunk" Seagraves
Jenny Milk Conrad
Cumberland Lodge
Rol Gordon
"Kankakee Ned" Barker
Mike Shafer
Che-mah
Deserter's Island
Al Sphung
Dog Face Bridge

#### **VOCABULARY**

anecdote denizen soiree inebriated

### **GENERAL DISCUSSION QUESTIONS**

- 1. Who was Richard Schmal? What was his story?
- 2. What new information did you learn about Jenny Milk Conrad and "Kankakee Ned" Barker?
- 3. What was Deserter's Island? How did it get its name?
- 4. Who was Spooney Granger? For what was he known?
- 5. What was the Cumberland Lodge? What is the mystery surrounding it?
- 6. Who was Mike Shafer? What was he known for? What happened to him?
- 7. What was distinctive about Al Sphung? How did he use an often over-looked natural resource?
- 8. Who was "Bunk" Seagraves? How did he get his nickname?
- 9. Who was Rol Gordon? What was his nickname? What was his connection to the marsh?
- 10. Who was Che-mah? What is his distinctive feature? Where might Che-mah become famous if he lived today?
- 11. What is Dog Face Bridge? How did it get its name?
- 12. What was your favorite story surrounding the Grand Kankakee Marsh?
- 13. How do stories and anecdotes change our views of history?

#### Activity: Benjamin J. Gifford

gokankakeeriver.org/download/7/

This article is about Benjamin J. Gifford for a local newspaper. Distribute it to the class and discuss it in context of the film. Consider the following questions: Who was Benjamin Gifford? What do we know about him? What tone is the author taking in this article? How does Benjamin Gifford fit into the story of the marsh? What other characters does he resemble? How does the nature of a person's life change after he/she dies? How might people discuss you after you die? How might people discuss your parents? Your grandparents? How does this play into the study of history?

#### Project/Activity: Storytelling and the Oral Tradition

Research the oral tradition of storytelling. Tell a story to your class, either one you have heard, or one you have invented. How is storytelling different from reading? How is it different from other forms of entertainment? Why is storytelling important? How does a story change over time? Consider telling a story as a means of communicating what you have learned about the Grand Kankakee Marsh.

- The Role of Storytelling http://www2.si.umich.edu/chico/UMS/Drummers/storytelling.html
- Storytelling Activity: Here is a storytelling activity that was developed for students in grades 4-6. Much of the content can be scaled to classes in other grades, especially as a means to discuss storytelling as a form of literature.

http://www.teachersdomain.org/resource/echo07.lan.stories.lporaltrad/

• Traditional Storytelling: This is a list of other other storytelling resources. http://www.timsheppard.co.uk/story/dir/traditions/

#### **Additional Resources**

#### Kankakee Ned Barker

http://www.ingenweb.org/innewton/newcomer/springsummerfall2010.pdf http://www.ingenweb.org/innewton/Beaver%20Lake.htm

#### The Cumberland Lodge

http://www.lowellpl.lib.in.us/s1982aug.htm http://www.thekankakeeriver.com/kankakee05.html

#### Rol Gordon

http://www.lowellpl.lib.in.us/s1989jul.htm

#### Link to Chemah

http://www.starkehistory.com/index\_files/Page1263.htm

#### Milton "Bunk" Seagraves

http://www.scpl.lib.in.us/historical/scpl\_files/pdf\_documents/knox\_characters\_i\_have\_known\_jo-nas\_1969\_1970.pdf

#### Dog Face Bridge

http://bridgehunter.com/in/starke/7500063/

# **LESSON 11:**A TALE OF TWO RIVERS

# SUMMARY (SPECIAL FEATURES)

This short film explores the geological characteristics of the Kankakee River. It also details the conservation efforts in the area.

#### **OBJECTIVE**

Students will learn about the current state of the Kankakee River and the Grand Kankakee Marsh.

#### **VOCABULARY**

meandering sediment sequester contention contentious riparian

### **GENERAL DISCUSSION QUESTIONS**

- 1. Why is the Kankakee called "two different rivers"?
- 2. Why does the speed of a river affect its depth?
- 3. Why are sand and sediment such a concern for the river?
- 4. Why has there been a problem between Indiana and Illinois over management of the Kankakee River?
- 5. What are some of the environmental changes that farmers are making?
- 6. What annual event is hosted by the Northern Illinois Anglers Association? Why is this event significant?
- 7. What are Riverwatch events? Why are they important?
- 8. What is the Grand Kankakee Marsh Restoration Project? What progress have they made?
- 9. What is the Nature Conservancy? What type of work do they accomplish? What are some of their successes?

#### **ACTIVITIES & RESOURCES**

Indiana Grand Kankakee Marsh Restoration Project http://www.igkmrp.org

#### The Nature Conservancy's Efforts

http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/kankakee-sands-in-il.xml

#### The Nature Conservancy's Kankakee Sands in Indiana

http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/placesweprotect/efroymson-restoration-1.xml

#### The Nature Conservancy's Kankakee Sands in Illinois

http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/illinois/placesweprotect/kankakee-sands-1.xml

#### The Pokagon Band of Potawatomi's Restoration Efforts

http://www.in.nrcs.usda.gov/news/success\_stories/Pokagon.html

# NATIONAL STANDARDS

The following national standards are provided as an educator reference point. It is our belief that this curriculum allows an educator to address the following standards in the classroom. Most state standards follow similar format and content. Please consult your standards to determine the necessary requirements for meeting them.

#### NATIONAL HISTORY STANDARDS

#### National History Standards

http://www.nchs.ucla.edu/Standards/

#### **Historical Thinking Standards**

Standard 2: Historical Comprehension

- C. Identify the central question(s) the historical narrative addresses.
- D. Differentiate between historical facts and historical interpretations.
- E. Read historical narratives imaginatively.
- F. Appreciate historical perspectives.

Standard 3: Historical Analysis and Interpretation

- A. Compare and contrast differing sets of ideas.
- B. Consider multiple perspectives.
- C. Analyze cause-and-effect relationships and multiple causation, including the importance of the individual, the influence of ideas.
- F. Compare competing historical narratives.
- I. Evaluate major debates among historians.

Standard 4: Historical Research Capabilities

- A. Formulate historical questions.
- B. Obtain historical data from a variety of sources.

#### United States History Content Standards Grades 5-12

Era 1: Three Worlds Meet (Beginnings to 1620)

Standard 2: How early European exploration and colonization resulted in cultural and ecological interactions among previously unconnected peoples.

Era 2: Colonization and Settlement (1585-1763)

Standard 1: Why the Americas attracted Europeans, why they brought enslaved Africans to their colonies, and how Europeans struggled for control of North America and the Caribbean.

Standard 3:How the values and institutions of European economic life took root in the colonies, and how slavery reshaped European and African life in the America.

# NATIONAL STANDARDS (continued)

Era 4: Expansion and Reform (1801-1861)

Standard 1: United States territorial expansion between 1801 and 1861, and how it affected relations with external powers and Native Americans.

Era 7: The Emergence of Modern America (1890-1930)

Standard 1: How Progressives and others addressed problems of industrial capitalism, urbanization, and political corruption.

Standard 3: How the United States changed from the end of World War I to the eve of the Great Depression.

Era 8: The Great Depression and World War II (1929-1945)

Standard 2: How the New Deal addressed the Great Depression, transformed American federalism, and initiated the welfare state.

#### NATIONAL LANGUAGE ARTS STANDARDS

- Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
- Students conduct research on issues and interests by generating ideas and questions, and by posing
  problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and
  audience.
- Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.
- Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).

#### NATIONAL SCIENCE STANDARDS

http://www.education.ne.gov/science/Documents/National\_Science\_Standardspdf.pdf

#### M.C.4 Populations and ecosystems

- b. Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some micro-organisms are producers—they make their own food. All animals, including humans, are consumers, which obtain food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers, and decomposers in an ecosystem.
- d. The number of organisms an ecosystem can support depends on the resources available and abiotic factors, such as quantity of light and water, range of temperatures, and soil composition. Given adequate biotic and abiotic resources and no disease or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

#### H.C.4 Interdependence of organisms

- d. Living organisms have the capacity to produce populations of infinite size, but environments and resources are finite. This fundamental tension has profound effects on the interactions between organisms.
- e. Human beings live within the world's ecosystems. Increasingly, humans modify ecosystems as a result of population growth, technology, and consumption. Human destruction of habitats through direct harvesting, pollution, atmospheric changes, and other factors is threatening current global stability, and if not addressed, ecosystems will be irreversibly affected.

#### M.E.2 Understandings about science and technology

f. Technological solutions have intended benefits and unintended consequences. Some consequences can be predicted, others cannot.

#### M.F.2 Populations, resources, and environments

- a. When an area becomes overpopulated, the environment will become degraded due to the increased use of resources.
- b. Causes of environmental degradation and resource depletion vary from region to region and from country to country.

#### H.F.2 Population growth

a. Populations grow or decline through the combined effects of births and deaths, and through emigration and immigration. Populations can increase through linear or exponential growth, with effects on resource use and environmental pollution.

#### H.F.3 Natural resources

- a. Human populations use resources in the environment in order to maintain and improve their existence. Natural resources have been and will continue to be used to maintain human populations.
- b. The earth does not have infinite resources; increasing human consumption places severe stress on the natural processes that renew some resources, and it depletes those resources that cannot be renewed.
- c. Humans use many natural systems as resources. Natural systems have the capacity to reuse waste, but that capacity is limited. Natural systems can change to an extent that exceeds the limits of organisms to adapt naturally or humans to adapt technologically.

#### H.F.4 Environmental quality

- a. Natural ecosystems provide an array of basic processes that affect humans. Those processes include maintenance of the quality of the atmosphere, generation of soils, control of the hydrologic cycle, disposal of wastes, and recycling of nutrients. Humans are changing many of these basic processes, and the changes may be detrimental to humans.
- b. Materials from human societies affect both physical and chemical cycles of the earth.

# NATIONAL STANDARDS (continued)

c. Many factors influence environmental quality. Factors that students might investigate include population growth, resource use, population distribution, overconsumption, the capacity of technology to solve problems, poverty, the role of economic, political, and religious views, and different ways humans view the earth.

#### M.F.3 Natural hazards

- b. Human activities also can induce hazards through resource acquisition, urban growth, land-use decisions, and waste disposal. Such activities can accelerate many natural changes.
- c. Natural hazards can present personal and societal challenges because misidentifying the change or incorrectly estimating the rate and scale of change may result in either too little attention and significant human costs or too much cost for unneeded preventive measures.

#### H.F.5 Natural and human-induced hazards

- b. Human activities can enhance potential for hazards. Acquisition of resources, urban growth, and waste disposal can accelerate rates of natural change.
- c. Some hazards, such as earthquakes, volcanic eruptions, and severe weather, are rapid and spectacular. But there are slow and progressive changes that also result in problems for individuals and societies. For example, change in stream channel position, erosion of bridge foundations, sedimentation in lakes and harbors, coastal erosions, and continuing erosion and wasting of soil and landscapes can all negatively affect society.
- d. Natural and human-induced hazards present the need for humans to assess potential danger and risk. Many changes in the environment designed by humans bring benefits to society, as well as cause risks. Students should understand the costs and trade-offs of various hazards—ranging from those with minor risk to a few people to major catastrophes with major risk to many people. The scale of events and the accuracy with which scientists and engineers can (and cannot) predict events are important considerations.

#### H.F.6 Science and technology in local, national, and global challenges

e. Humans have a major effect on other species. For example, the influence of humans on other organisms occurs through land use—which decreases space available to other species—and pollution—which changes the chemical composition of air, soil, and water.

**NATIONAL STANDARDS** 

**IN-KIND GIFT OF PRINTING DONATED BY** 

**NIPSCO**