SECTION 6: 1866 – 1901 - INDUSTRIAL DETROIT

INTRODUCTION:
This unit helps third grade students understand the life and culture in Detroit as it grew into one of the largest cities in the United States. Students will learn about industrialization of Detroit, as well as the key symbols that still represent the city and its people today. This unit includes a comprehensive background essay, as well as three lesson plans. The lesson plans include viewing and analyzing primary sources such as maps, objects and narratives. The unit includes a list of additional resources and copies of worksheets and primary sources needed for the lessons.

ESSENTIAL QUESTIONS:
• How did Detroiter turn raw natural resources into finished products in the late 1800s?
• What can we learn about Detroit and the history of its people by looking at maps and street names?
• What symbols represent Detroit, and why are they important?

MICHIGAN GLCES – GRADE THREE

Social Studies:
• H3 – History of Michigan Through Statehood
  o 3-H3.0.1 – Identify questions historians ask in examining the past in Michigan.
  o 3-H3.0.2 – Explain how historians use primary and secondary sources to answer questions about the past.
  o 3-H3.0.3 – Describe the causal relationships between three events in Michigan’s past.
  o 3-H3.0.8 – Use case studies or stories to describe how the ideas or actions of individuals affected the history of Michigan.
• G5 – Environment and Society
  o 3-G5.0.1 – Locate natural resources in Michigan and explain the consequences of their use.
  o 3-G5.0.2 – Describe how people adapt to, use, and modify the natural resources of Michigan.
• E1 – Market Economy
  o 3-EI.0.3 – Analyze how Michigan's location and natural resources influenced its economic development.

English Language Arts
• Reading:
  o R.CM.03.01 – Connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.
  o R.CM.03.02 – Retell in sequence the story elements of grade-level narrative text and major idea(s) and relevant details of grade-level informational text.
• Writing:
  o W.PR.03.02 – Apply a variety of pre-writing strategies for both narrative and informational writing in order to generate, sequence, and structure ideas.
  o W.PR.03.03 – Draft focused ideas in written compositions using multiple sentences and paragraphs to slow down or speed up reading: including varying patterns and/or organizational text structures.

LEARNING OBJECTIVES:
Students will:
• Use primary sources to learn about the process of turning iron ore into cast iron stoves.
• Trace the movement of natural resources from the Upper Peninsula to Detroit.
• Summarize the process of turning iron ore into cast iron stoves in a visual display.
• Discover the history of Detroit through the names of its great streets.
• Design a visual display or marker depicting the history of a selected Detroit street.
• Orally present information about a historic Detroit street.
• Understand that flags are symbols that represent values of a city, state and nation.
• Summarize the symbolism of each section of the Detroit flag.
• Construct a timeline of a particular era of Detroit history after doing a study.

BACKGROUND ESSAY:
By the 1860s, Detroit’s transformation from frontier outpost to bustling metropolis was almost complete. In 1870, the city’s population was 79,577. The city covered almost 13 square miles, and it ranked 18th in size in the United States. The city boasted over 14,000 homes, 52 churches, 24 public schools, and 14 hospitals and asylums. Detroit’s streets were littered with horse-drawn streetcars. In 1886, streetcar lines covered 42 miles of streets in the city of Detroit. In 1893, the streetcar horses were replaced by new electric trolleys.

Immigration from foreign countries was beginning to peak. Nearly half of all Detroits were born outside the United States, with the highest-percentage coming from Germany, Ireland, Poland and Canada.

Detroit’s economy was booming. One of the largest industries in the 1870s was copper smelting. Raw copper ore was shipped from Michigan’s Upper Peninsula to Detroit, where it was processed in factories. “Smelting” is the process of removing minerals and other contaminants from the ore in order to make pure metal. The copper was then made into several products, like wiring, pipes, jewelry and other items. By the 1880s, Detroit was also known for its iron foundries. In addition to refining the raw iron ore, several manufacturers melted the iron until it was a red hot liquid, and poured it into molds to make stoves, candle holders, tools, building facades and other products.

The Original “Big 3”
By the 1890s, Detroit had emerged as a center of heavy industry. The availability of iron ore in Michigan’s Upper Peninsula and easy access to coal via the Great Lakes made Detroit an ideal place for factories. Manufacturers were building names for themselves and the city in three key industries: railroad cars, stoves and ship building.

The railroad helped jump start Detroit’s development, and Detroit became known for manufacturing railroad cars. It was the largest industry in Detroit in the 1890s. In 1892 several companies, including the Michigan Car Company, Peninsular Car Company, the Russel Wheel and Foundry Company and the Detroit Car Wheel Company merged to become the Michigan-Peninsular Car Company. The company made train wheels and frameworks for rail cars, as well as innovated on car design. In 1868, Detroiter William Davis patented the first refrigerator rail car. He sold the design to George H. Hammond, a Detroit meat packer, who built a set of cars to ship his meat to the east coast. It used ice harvested from the Great Lakes to keep it cool. Even railroad sleeper car innovator George Pullman manufactured his cars in Detroit in the 1870s.

In the middle of the 19th century, Detroits had to purchase cast iron wood and kitchen stoves from upstate New York. It took a lot of time and a lot of money to ship stoves and repair parts to Detroit. In 1861, Jeremiah Dwyer, an apprentice stove maker from Albany, New York, began dabbling in the manufacture of cast iron stoves in Detroit. By 1864, his Detroit Stove Company was making stoves that were noted across the country for their quality. By the 1870s, the company had grown so large that it changed its name to the Michigan Stove Company, and declared Detroit the “stove capital of the world.” They commemorated their title at the 1893 World’s Columbian Exposition in Chicago with
a monumental structure: the world’s largest stove, which was a replica of their Garland wood stove that was carved from wood, weighed 15 tons and stood 25 feet tall. (The stove had been restored and erected at the Michigan State Fairgrounds in 1974. It burned to the ground in August 2011 when it was allegedly hit by lightning.) Other stove manufacturers in Detroit included the Peninsular Stove Company.

The availability of natural resources also made Detroit a shipbuilding center by the 1870s. Early entrepreneurs had built "dry docks" on the Detroit River in the 1850s. (Dry docks were landings in a harbor next to a pier where ships were loaded and unloaded or repaired. Most had a series of gates to let water in and out.) In 1879, the Detroit Dry Dock Company purchased a large shipyard in Wyandotte, Michigan and began building massive fresh water vessels. Factories that made marine engines, steam boilers, and ship parts sprung up all over the city. By 1905, Detroit shipbuilding companies were manufacturing nearly half of all ships – both freight and passenger – on the Great Lakes.

In addition to heavy industry, Detroit was also known for making a host of other consumer goods. Turning lumber from northern Michigan into boards was still an important industry, as well as making leather and fur goods and clothing, cigars and tobacco products, boots and shoes, soap and candles, seeds, and pharmaceuticals. Dexter Ferry founded the D. M. Ferry & Co., a flower and vegetable seed producer, in Detroit in 1879. People can still buy seeds from the company today. Many common products and businesses that are familiar today got their start in the late 1800s, including Vernor’s ginger ale, Sander’s ice cream shops, Hudson’s department store, Stroh’s beer and Kresge 5 and 10 (now known as Kmart).

Detroiter were hard workers. The new industries required both skilled and unskilled workers. Many of the foreign-born immigrants found jobs in factories. Women would sew or make cigars, and men would work long hours in the factories. A normal work week was ten hours a day, six days a week. Most laborers earned about $1.00 per day. The city also had many professional jobs. Hundreds of doctors, lawyers, dentists, barbers, merchants, and clerks worked in offices spread across the city.

**Progressive Detroit**

Hazen S. Pingree was a cobbler who moved to Detroit after serving in the Union Army during the Civil War. In Detroit, he quickly found success as a shoe manufacturer, and by the early 1880s he and partner, Charles H. Smith, were the largest shoe and boot manufacturer in the Midwest.

In the 1880s, Pingree was upset and angry by the corruption he saw in Detroit’s city government. He had a distrust of private companies that did business for the city, such as paving streets, building sewers and supplying electric and gas, which he felt were taking advantage of city contracts and charging exorbitant fees. Pingree ran for the office of Detroit mayor and was elected in 1889.

Pingree’s administration was known for fighting corruption in the city. He challenged the privately-owned electric and gas monopolies by creating municipally-owned competitors. His largest and most public struggle was against the private Detroit City Railways. He felt they overcharged patrons and demanded they lower their fares to three-cents per ride. He even tried to create a competing municipally-owned streetcar company, but did not succeed because it was prohibited by the Michigan Constitution.

In 1893, Detroit and the country faced a severe economic depression. Pingree took action by creating public welfare programs and initiating public works projects for the unemployed which built new schools, parks, and public baths. In 1894, Pingree won national acclaim for his "potato patch plan." He arranged for vacant city land, both public and private, to be converted to vegetable gardens that would provide food for the city's poor. Pingree even funded part of the garden plan with his own money.
In 1896, Pingree was elected Governor of Michigan. He still had one year left as mayor of Detroit, and he intended to serve in both positions at the same time. However, the Michigan Supreme Court ruled that he could not hold two elected offices at once because it created a conflict of interest. As a result, Pingree resigned as mayor. During his four years as Michigan's governor, Pingree advocated for several reforms, including direct election of U.S. senators, an eight-hour workday and a regulated income tax.

Conclusion

Detroit at the turn of the 20th century was an exciting and overwhelming place. The city had grown from a mainly agrarian place to a bustling industrial city in less than 75 years. Population was sky-rocketing as foreign and native immigrants arrived in the city to work in the factories. Detroit was growing faster than it could handle, and politicians like Hazen Pingree worked hard to ensure that the growth was regulated and fair, and that the citizens' interests were considered and protected.

With its three key industries – cast iron stoves, railroad cars, and marine engine and ship building – providing ideal infrastructure, Detroit was primed to take on the 20th century’s newest industrial innovation, the horseless carriage. Although Detroit was not the only city building automobiles in the early 1900s, key innovators like Ransom Olds, Henry Ford and the Dodge Brothers ensured that 20th century Detroit would become known as the “Motor City.”

LESSON 1: INDUSTRIAL DETROIT: FROM ORE TO OBJECT

Materials Used:

- Date Elements:
  - DE 6.1: Photo: Iron Ore
  - DE 6.2: Photo: Copper Mine
  - DE 6.3: Narrative: Life of an Iron Miner
  - DE 6.4: Photo: Great Lakes Freighter
  - DE 6.5: Photo: Loading Cargo
  - DE 6.6: Narrative: Life of a Freighter Worker
  - DE 6.7: Diagram: Great Lakes Freighter
  - DE 6.8: Photo: Ore Refinery
  - DE 6.9: Photo: Detroit Stove Works Factory
  - DE 6.10: Photo: Detroit Stove Advertisement
  - DE 6.11: Narrative: Life of a Factory Worker
- Worksheet
  - WS 6.1: Manufacturing Process Worksheet
- Poster board, markers, magazines, and other craft materials.

Lesson Sequence:

1. Explain to the students that after the Civil War, Detroit became known for making items out of natural resources found in Michigan.
2. Ask students to brainstorm natural resources found in Michigan: iron, copper, lumber.
3. Explain that by the 1900s, Detroit was known as the stove capital of the world. Today, they will learn about the process of turning iron ore into stoves.
4. Break the students into 3 groups. Distribute the data elements as follows:
   a. Group 1:
      i. DE 6.1: Photo: Iron Ore
      ii. DE 6.2: Photo: Copper Mine
      iii. DE 6.3: Narrative: Life of an Iron Miner
   b. Group 2:
i. DE 6.4: Photo: Great Lakes Freighter
ii. DE 6.5: Photo: Loading Cargo
iii. DE 6.6: Narrative: Life of a Freighter Worker
iv. DE 6.7: Diagram: Great Lakes Freighter
c. Group 3:
   i. DE 6.8: Photo: Ore Refinery
   ii. DE 6.9: Photo: Detroit Stove Works Factory
   iii. DE 6.10: Photo: Detroit Stove Advertisement
   iv. DE 6.11: Narrative: Life of a Factory Worker
5. Explain that each group will study and learn about one part of the process from taking iron ore and making it into iron. They should use information from their Data Elements and other relevant sources to complete WS 6.1: Manufacturing Process Worksheet.
6. Once they have their worksheet completed, they should use the information to make a poster that explains how their part of the process works.
7. Once every group has finished their posters, they should present to the rest of the class, in order.
8. Hang the posters around the room.

LESSON 2: Taking it to the Streets

Materials Used:
• Data Elements:
  o DE 6.12: Taking it to the Streets
  o DE 6.13: Detroit Street Names Honor Early Settlers

Lesson Sequence:
1. Have the students discuss how they have their own names. Discuss how cities, streets and buildings (including the school, if applicable) are often named after people.
2. Provide students with the DE 6.11: Detroit Street Names Honor Early Settlers. It presents information on several Detroit street names.
3. Ask the students if they have ever seen a historic marker. Explain that they will be designing a visual display or historical marker for one of the six streets they will be studying.
4. Divide students into six groups to study selected Detroit streets. They may use information from DE 6.12: Taking it to the Streets and the school library.
5. Ask each group to create a visual display for their historic street. Use paper or poster board and include artwork, flowers, statues, and historical markers.
6. Have each group present their visual display or historical marker to the rest of the class.

Extension activities:
1. Present the displays at a school assembly during Michigan Week in May.
2. Do a study on the origins of other street names or the names of buildings in the community.
LESSON 3: THE DETROIT FLAG AND SEAL

Materials Used:
- Data Elements:
  - DE 6.14: Detroit Flag: Symbols of Our History
- Worksheets:
  - WS 6.2: Detroit Flag Skeleton
- Butcher or chart paper
- Markers, crayons, scrap paper, old magazines, glue sticks and other craft materials

Lesson Sequence:
1. Show the students a well-known symbol, such as the Nike swoop or the Apple logo. Ask the students what it is. Discuss the idea that a symbol is a picture that represents something. Ask for examples of other symbols.
2. Show the United States flag and ask how it is a symbol. Explain, if necessary, that the fifty stars symbolize the fifty states and the thirteen stripes represent the original thirteen colonies. Flags often symbolize the history of a place.
3. Ask the students if they have ever seen the Detroit flag. If they have, ask them what it looks like. Show the Detroit flag and ask for guesses as to what each part symbolizes.
4. Distribute copies of DE 6.13: Detroit Flag: Symbols of Our History handout and WS 6.2: Detroit Flag Skeleton graphic organizer. As a class or in small groups, read about the Detroit flag and complete the skeleton worksheet. Students should complete the worksheet by taking the information in the essay and summarizing it in their own words on the graphic organizer. If time permits, have the students color the flag.
5. Discuss the worksheets with the class.
6. Lead a discussion about symbols today. Ask the students why they think symbols send messages, and why they are important. For example:
   a. Advertising – symbols like the Nike swoosh make the company readily identifiable to the public. This type of symbol is called a brand.
   b. Nationalism – symbols on flags, like the Detroit flag or the United States flag symbolize themes of pride and nationalism. They are used to give groups of people a sense of pride about their city or country’s history and culture.
7. Ask your students what symbols they would use to represent the school or classroom. Write the suggestions on the board.
8. Have each group make their own flag that uses symbols to represent the school or classroom. Let them know that they can only use pictures. No words are allowed on their posters. Having a wide array of craft materials available will result in very intricate and interesting flags.
9. If time permits, have each group present their flag to the rest of the class, explaining the symbols they chose and what they mean. Post the flags around the classroom.

ADDITIONAL RESOURCES:

Books:


**Links:**


*Growth of Manufacturing Online Tour*. Michigan Historical Center. 23 November 2011. [http://www.hal.state.mi.us/mhc/museum/explore/museums/hismus/prehist/manufac/](http://www.hal.state.mi.us/mhc/museum/explore/museums/hismus/prehist/manufac/)


*Mining in Michigan*. Michigan Historical Center. 23 November 23, 2011. [http://www.hal.state.mi.us/mhc/timetraveler/mining/index.html](http://www.hal.state.mi.us/mhc/timetraveler/mining/index.html)

*Mining in Michigan Gallery Tour*. Michigan Historical Center. 23 November 2011. [http://www.hal.state.mi.us/mhc/museum/explore/museums/hismus/prehist/mining/](http://www.hal.state.mi.us/mhc/museum/explore/museums/hismus/prehist/mining/)

