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The Care of School Resource Kits

Each School Resource Kit is comprised of authentic artifacts and modern reproductions.

Handling these particular objects is encouraged. Touching the objects and passing them around is allowed, but please remember that some items are delicate and should be treated with care.

Objects in plastic should remain in plastic though they may still be passed around for closer inspection.

Why do we ask you not to touch certain objects? The oils, dirt and moisture from your fingertips can stain textiles and etch metals, permanently changing them. One touch may not seem like much, but hundreds of touches in a year can wear a hole in a cotton dress or a notch in a wooden axe handle.

There are some items in certain kits that may be considered weapons in your school; be aware of your school’s policy regarding weapons and take appropriate action (i.e. inform the principal).

These items have been specially chosen for “hands on” learning and educational programs. In any museum, items on display and in the collection should never be touched unless a museum staff member has invited you to do so.

If an item is damaged, please gather all the pieces into a plastic bag and return it with the kit. When you return the kit, please let a staff member know that there is a damaged object.

If you find an item is missing or already damaged, please inform the museum’s student staff when you return the kit.

There are numerous benefits to the school resource kits. The “hands-on” aspect is one. Look closely at the materials used to make these historic objects. Look at their colors and decorations. Feel how light or heavy they are. Look at how they were manufactured. Consider who would have used these objects. Then, compare these historical artifacts to objects we use today. How are these items made today? Do we even use these objects today? What is different? What has remained the same?
Michigan Grade Level Content Expectations

History:

• Living and Working Together
  *Use historical thinking to understand the past.*
  K – H2.0.4 Describe ways people learn about the past (e.g., photos, artifacts, diaries, stories)

• Living and Working Together in Families and Schools
  1 – H2.0.1 Demonstrate chronological thinking by distinguishing among past, present, and future family or school events.
  1 – H2.0.5 Use historical records and artifacts (e.g., photos, diaries, oral histories, and videos) to draw possible conclusions about family or school life in the past.

• Living and Working Together in Communities
  2 – H2.0.4 Describe changes in the local community over time (e.g., types of businesses, architecture and landscape, jobs, transportation, population).

• History of Michigan (Through Statehood)
  3 – H3.0.3 Describe the causal relationships between three events in Michigan’s past (e.g., Erie Canal, more people came, statehood).

• History of Michigan (Beyond Statehood)
  4 – H3.0.4 Draw upon stories, photos, artifacts, and other primary sources to compare the life of people in towns and cities in Michigan and in the Great Lakes region during a variety of time periods from 837 to the present (e.g., 1837-1900, 1900-1950, 1950-2000).

Geography:

• Environment and Society
  *Understand the effects of human-environment interactions.*
  K – G5.0.1 Describe ways people use the environment to meet human needs and wants (e.g., food, shelter, clothing.)

• The World in Spatial Terms
  *Use geographic representations to acquire, process, and report information from a spatial perspective*
  1 – G1.0.1 Construct simple maps of the classroom to demonstrate aerial perspective.

• Environment and Society
  *Understand the effects of human-environment interactions.*
  2 – G5.0.1 Suggest ways people can responsibly interact with the environment in the local community
  2 – G5.0.2 Describe positive (e.g., how waterways and other natural resources have influenced economic activities such as mining, lumbering, automobile manufacturing, and furniture making).
Economics:

- Market Economy
  Use fundamental principles and concepts of economics to understand economic activity in a market economy.
  1 – E1.0.1 Distinguish between producers and consumers of goods and services.
  1 – E1.0.2 Describe ways in which families consume goods and services.
  2 – E1.0.4 Describe the natural, human, and capital resources needed for production of a good or service in a community.
  3 – E1.0.3 Analyze how Michigan’s location and natural resources influenced its economic Development.
Introduction

Farming has been our main source of survival for thousands of years and the techniques used in farming have evolved over the years. Even today, it is still important to us as it was for our ancestors. Other than just for survival, farming is also a great source of revenue for farmers and the economy. So it is important to teach students the history, as well as techniques and tools used to farm.

This School Resource Kit focuses on the tools used in farming. With this kit, students will learn about the common everyday farm activities and how they relate to life today. Students will have the ability to see the difference between the way they live now, and the way people survived in the past. This manual includes pictures of the actual artifacts related to farming with a description on its use.
Growth of Farming in Michigan

Michigan farming began after the war of 1812 by pioneers settling in with their families. With the immigration of many settlers, the federal government worked towards getting more land from the Native Americans to have more space. Michigan was a desirable place for farming because of rich soils and easy access to water due to the abundant lakes, rivers and streams.

The Erie Canal which is connected to New York’s Hudson River to Lake Erie, was a way of transportation to Michigan via the port of Detroit. The sort of people that came to settle Michigan were hardworking pioneers. They came for the opportunity to make a better life for themselves and their families. These people came from already established communities in the east to brave the unknown western frontier and looked forward to the challenges ahead of them in an adventurous spirit.

It was vital that a family had a farm because it was the only way to survive in the early days of Michigan. A pioneer could not simply go to the grocery store and pick up dinner. A pioneer needed to farm their land in order to grow crops and raise animals to feed and clothe the family.

According to agclassroom.org, agriculture is the second largest industry in Michigan and generates $73.1 billion dollars for the state economy. Today, Michigan is the leading producer of cherries, apples, grapes, and peaches. Field crops such as corn, dry beans, soybeans, sugar beets, hay and wheat make up the largest part of Michigan agriculture.
Artifacts: Horseshoe

Horseshoes are used to protect animals’ hooves from wear and tear. They are in need of protection because the added weight from a human rider, or from performing other jobs, like pulling carts, can wear down the hooves. Horseshoes can also be designed to provide traction on slippery or rough terrain. Horseshoes are nailed into the hoof, but this does not hurt the animal. The hooves on a horse are made of the same substance as our fingernails. Horseshoes were made of iron in the 1800’s and early 1900’s. Today they are usually made of steel, aluminum or plastic.

Horseshoes are not only used to protect the horses’ hooves from rough terrain, they are also a symbol of a good luck charm in many cultures.

QUESTIONS FOR DISCUSSION

1. Why were horses so important to a farmer in the past?
2. Can you tell us about caring for a horse?
3. Do any of you have a horse? If so, do they wear horseshoes?
Horses were not the only animals used on farms in Michigan before tractors became affordable. While many farmers used horses, oxen were often a popular alternative. People moving to Michigan frequently purchased land to farm that was forest when they arrived here. In order to make the land productive, settlers had to clear the trees and plow the soil before they planted any crops. Since horses were expensive and not strong enough to pull heavy plows through the tough soil many turned to oxen.

These animals were readily available and inexpensive. Sometimes the work load was so heavy it took 2 or 3 teams of 2 oxen to complete a day's work. But as time went on most farmers purchased more horses and eventually machines to help with their work. Even though it is extremely rare to see a modern farmer in Michigan use an ox, this animal is still used all over the world in small-scale farming, and are prized for their calm disposition.

While the horseshoe was one piece, oxen shoes are made up of two separate pieces, one for each side of the hoof. The artifact in this resource kit is just one part of the pair needed to be a complete shoe. As a result of this, farmers would need eight of these pieces for just one ox! Just like humans shoes, ox shoes needed to be replaced as they wore out, or if the ox worked it off. Perhaps the most famous oxen were those used as draught animals for wagons by settlers moving west on the Oregon Trail. These pioneers often chose oxen for the same reason farmers did; they were cheaper, easier to feed, and less attractive to thieves than horses were.

QUESTIONS FOR DISCUSSION
1. How is this animal shoe different from a horse shoe?
2. How do you think the shoes stayed fastened to the oxen’s hooves?
3. Do you think you would prefer oxen or horses if you had been a farmer in the
Artifacts: Cow Bell

This bell was attached around a cow’s neck. The sound it made helped locate stray cattle. When cattle got separated from the rest of the herd, farmers could listen and follow the loud ring of the bell to find the stray cattle. Cowbells were usually made of what is referred to as “bell metal” which is a form of bronze made from copper and tin.

Cowbells are still used today to keep track of cattle. There are some differences between the bells from the past versus today. Instead of using copper and bronze, the bells are made of steel with a powdered coat which is much cheaper than what bronze and copper bells would have been today.

QUESTIONS FOR DISCUSSION
1. Where else have you seen or heard a cowbell?
2. What other kinds of things can you use a cowbell for?
3. What other kinds of animals wear bells?
Artifacts: Sickle

Crops have been harvested by hand throughout most of human history. A sickle, sometimes called a grass hook, was made of cast steel. It was usually used when hand harvesting grains and grasses. A field worker could cut a whole acre using a sickle in a hard day’s work. Then the cut grain was bound by hand. While most farmers today use machines to harvest their crops, some people still use sickles.

QUESTIONS FOR DISCUSSION

1. How are grains harvested today?
2. What are some grains?
3. What are grains used for?
Artifacts: 1890s Corn Husker

The first invention used to assist in corn husking was the husking peg, described briefly as a small, round piece of hard wood sharpened at one end, some six inches in length, held in the hollow of the right hand. Attached to the husking peg was a loop of buckskin or other soft leather. The loop passed over the middle finger and which held the husking peg in place. The sharpened end of the peg was thrust through the husks at the tip end of the ear, enabling the operator to husk the ear quickly and easily and the husking peg at once came into universal use.

In the year 1890 the Lillie corn husker or corn hook as it is often called, was invented by W. F. Lillie of Rockford, Nebraska. Worn on the right hand, the point was used to penetrate the husk top, making it easier to remove the complete husk.

Harvest time meant working hard to prepare food for storage, so people used to throw corn husking parties to make husking more fun. A pile of cobs was placed in front of the young men and another in front of the young women. A red cob was hidden in each pile. Discovering the special cob made the finder king or queen of the corn husking party. The “royal” couple led the dancing that night.

Today, corn husking is either done by hand or the use of a corn husking machine. There is even a corn husking association called the National Cornhusking Association, which sponsors a corn husking contest to see who can husk the most corn in the shortest time period.

QUESTIONS FOR DISCUSSION

1. Have you ever husked corn?
2. Are ears of corn that you get from the grocery store already husked?
3. Do you think farmers still use huskers like this today?
Artifact: 1900s Potato Planter

The potato planter originally had a wooden handle like one that you would find on a rake or shovel. The farmer would hold the handle, put a seed potato in the scoop and step on the side bar, which let the potato fall into the hole. Potatoes are more “soil-particular” than “climate-particular”. Michigan has very suitable soil for potatoes to grow which makes Michigan the 8th leading state in the nation to grow potatoes. The map to the right shows the counties where potatoes are mostly grown in Michigan according to the Department of Agriculture.

Left: This is an example of a planter used in the early 1900s.

Right: This is an example of a potato planter used before technology made it possible for machinery to plant potatoes.

Left: This is an example of a planter machine used today.

**QUESTIONS FOR DISCUSSION**

1. How long might it have taken to plant a field of potatoes using this potato planter? (Half a day, depending on how large the field is)
2. How much time do you think it takes today with one of these new machines? Is it faster? (A few hours, also depending on how large the field is)
3. Is one way better than the other? Why or why not?
Artifact: Steelyard Balance

A steelyard balance is a straight-beam balance with arms of unequal length. It has a counterweight which slides along the calibrated longer arm to balance the load and give its weight by multiplying the weight of the object by the length of the short balance arm. Steelyards were used to weigh things.

This is the steelyard used for smaller items or objects.

This is a very large steelyard used to weigh very heavy objects, or amounts.

QUESTIONS FOR DISCUSSION
1. Can you spot the steelyard on the barn in the picture?
2. What kinds of things do you think it can weigh? (Weighs loads from ounces to tons)
3. What else can you use to measure objects? (gram scale/balance)
Artifact: Hog Ringer

These were used to insert a ring in the hog’s nose. Pigs used to be allowed to forage for their food. When the owner wanted the pig to stay put, he would thread a chain through the ring in the pigs’ nose and stake it down.

Hog ringers come in many different types today. People can get hog ringer pliers, like the ones shown above, or mechanized hog ringers, like the one shown below.

QUESTIONS FOR DISCUSSION

1. Do you think there is another way to keeps pigs in one space?
2. Do you think the nose rings are similar pain for pigs as for humans?
3. Do you think the pigs are bother by the nose rings? Has anyone seen a pig with a nose ring?
Suggested Classroom Activities: Making Butter

On a farm in the 1800 or early 1900s butter was churned in a wooden bucket with a paddle in the middle. Today large electric butter churns made of metal are used. You can see how butter is made from cream!

Things you will need:

- Glass jar with tight screw lid
- Heavy Cream
- Cheesecloth
- Students to shake the jars
- Crackers to taste butter

Instructions:

1. Pour the cream into a jar and place the lid on it.
2. Have students take turn shaking the jar, until the butterfat starts to clump together, about 20 minutes or so.
4. Use the cheesecloth to strain away buttermilk.
5. Spread on crackers and enjoy!
Suggested Classroom Activities: Sugar-on-Snow

In the 1800s and 1900s pioneers often made their own candy because it was expensive to buy from a general store. Maple Sugar Candy is now produced by fine confectionary companies. This is a simple activity that is perfect for winter time!

Things You Will Need:

- Medium to Large sized Pot, at least 5 inches deep.
- 100% Pure Maple Syrup
- A block of Ice or a Pan filled with Packed Snow
- Large Wooden Spoon for stirring
- Small Spoons (that won’t melt)
- A Potholder (for the teacher’ safety)
- Forks

Instructions:

1. Pour maple syrup into pot making sure syrup level remains around 3 inches below top of pot.
2. Boil Syrup stirring occasionally with large spoon so that the syrup doesn’t burn.
3. Continue to boil until when dropped onto ice or snow, it remains “waxy.”
4. Dip small spoons into pot and drop thickened maple syrup onto ice or snow. (Be careful with hot pot!)
5. Wait till candy cools.
6. The candy will be harder the longer it sits on the snow.
7. Use forks to scoop candy from snow.
8. Enjoy!

Note: A candy thermometer can be used to keep track of temperature. Maple syrup should be heated to about 240 degrees Fahrenheit.
Credits

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http://www.conniescrafts.com/
http://www.nebraskahistory.org
http://www.geo.msu.edu/geogmich/ag_history.htm
http://www.michigan.gov/dnr/0,4570,7-153-54463_18670_18793-53370--,00.html
http://www.hal.state.mi.us/mhc/museum/explore/museums/hismus/1900-75/erlyagri/

Every effort has been made to find and credit the sources of information used in this publication. If a source has been inadvertently omitted or corrections need to be made, please contact the Museum of Cultural and Natural History. Any oversights will be remedied.
School Resource Kit Evaluation Form: Farming in Michigan

Kit Use: __ Mid Tier Lesson
     ___ Student Teaching
     ___ College Classroom Presentation (Class Number __________)
     ___ Elementary Classroom (Grade Level __________)
     ___ High School Classroom (Subject Area __________)
     ___ Other (___________________________________)

1. Did the kit meet your needs? Yes ________ No ________

2. Was the kit easy to use and understand? Yes ________ No ________

3. Is there anything not included in this kit that would be useful? Yes ________ No ________
   If yes, please include your suggestions: ____________________________________________________

4. Was the printed guide easy to use and understand? Yes ________ No ________

5. Was the kit in good condition? Yes ________ No ________

6. Would you use this kit again? Yes ________ No ________

7. Would you recommend this kit to a colleague? Yes ________ No ________

8. Is there a topic that you would suggest we develop a loan kit for?
   If yes, please include your suggestions: ____________________________________________________

Additional Comments: ______________________________________________________________________
   ______________________________________________________________________________________
   ______________________________________________________________________________________
   ______________________________________________________________________________________

Thank you for your feedback!
-The Museum of Cultural and Natural History