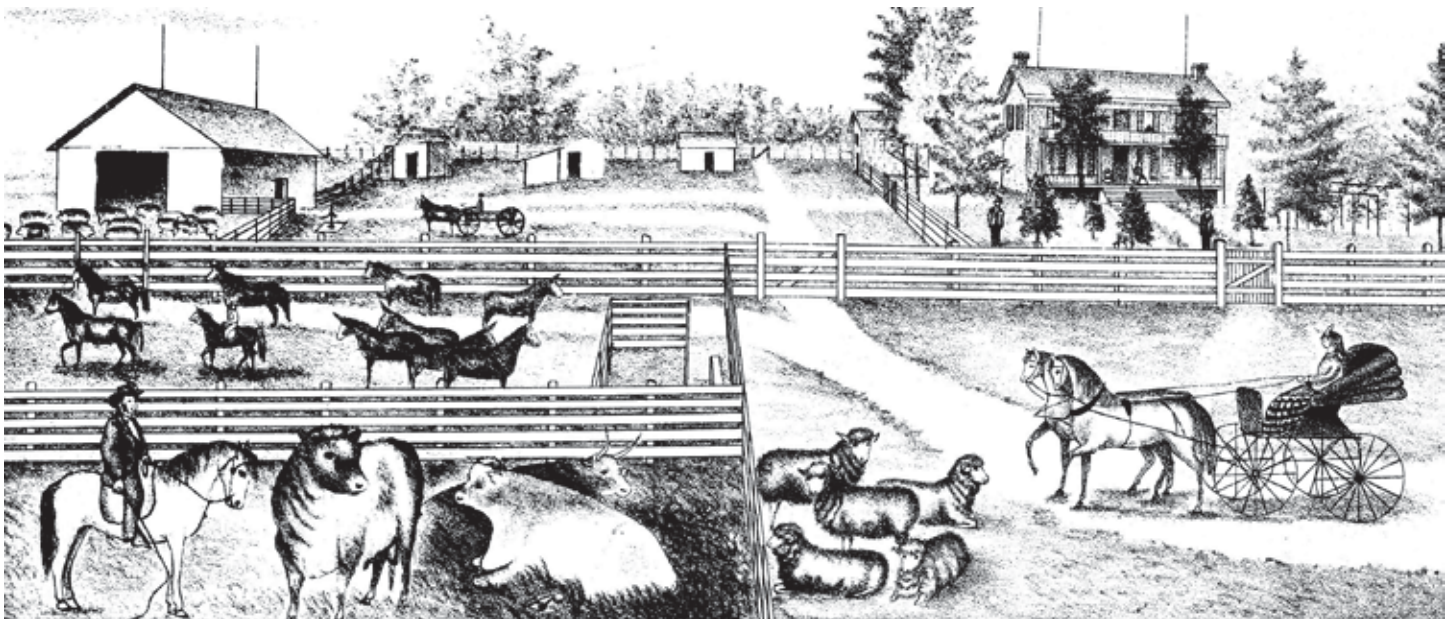


JB MAHAFFIE

HAD A FARM

PRE AND POST VISIT PACKET



7th & 8th
grade students

JB MAHAFFIE HAD A FARM

PRE AND POST VISIT PACKET

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**Supplemental Math and Science Programs
can be found on the Mahaffie website
(www.mahaffie.org)**

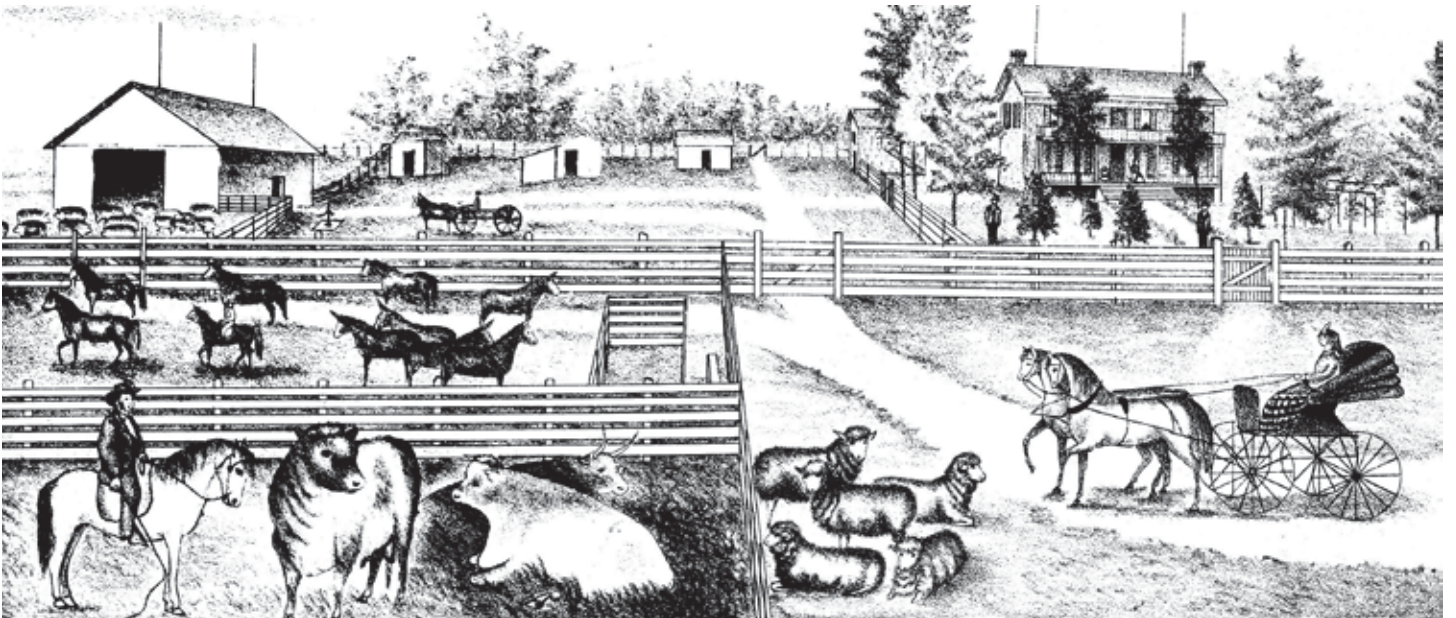
- “Why Grow Corn on the Farm”
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JB MAHAFFIE HAD A FARM

PRE AND POST VISIT PACKET

Section 1 –Pre-Visit Materials



JB MAHAFFIE HAD A FARM

PRE-VISIT LESSON PLAN

OVERVIEW

The Mahaffies are known for running a stagecoach stop, but their main occupation was as farmers. The Mahaffie farm was one of the largest in the counties. This pre-visit lesson plan aims to teach students about life on a farm, both as an adult and as a child. Students will analyze both visual images and written documents to learn more about farm life. They will complete worksheets and activities to enhance their learning before going on the tour at Mahaffie.

OBJECTIVES

1. The student will compare working on the Mahaffie farm to farms today.
2. The student will identify farming technology from the 19th century.
3. The student will analyze some of the problems farmers faced in the 19th century.

ESSENTIAL QUESTIONS

1. What was farm technology like during the late 1800s?
2. What items did the Mahaffie farm produce and sell?
3. What was it like to grow up on a farm?

STANDARDS

Kansas History Benchmark:

- 1.1 The student will recognize and evaluate significant choices made by individuals, communities, states, and nations that have impacted our lives and futures.
- 2.1 The student will recognize and evaluate the rights and responsibilities of people living in societies.
- 4.1 The student will recognize and evaluate continuity and change over time and its impact on individuals, institutions, communities, states, and nations.

Common Core:

CCSS.ELA-Literacy.W.7-8.7 Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.

CCSS.ELA-Literacy.SL.8.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.



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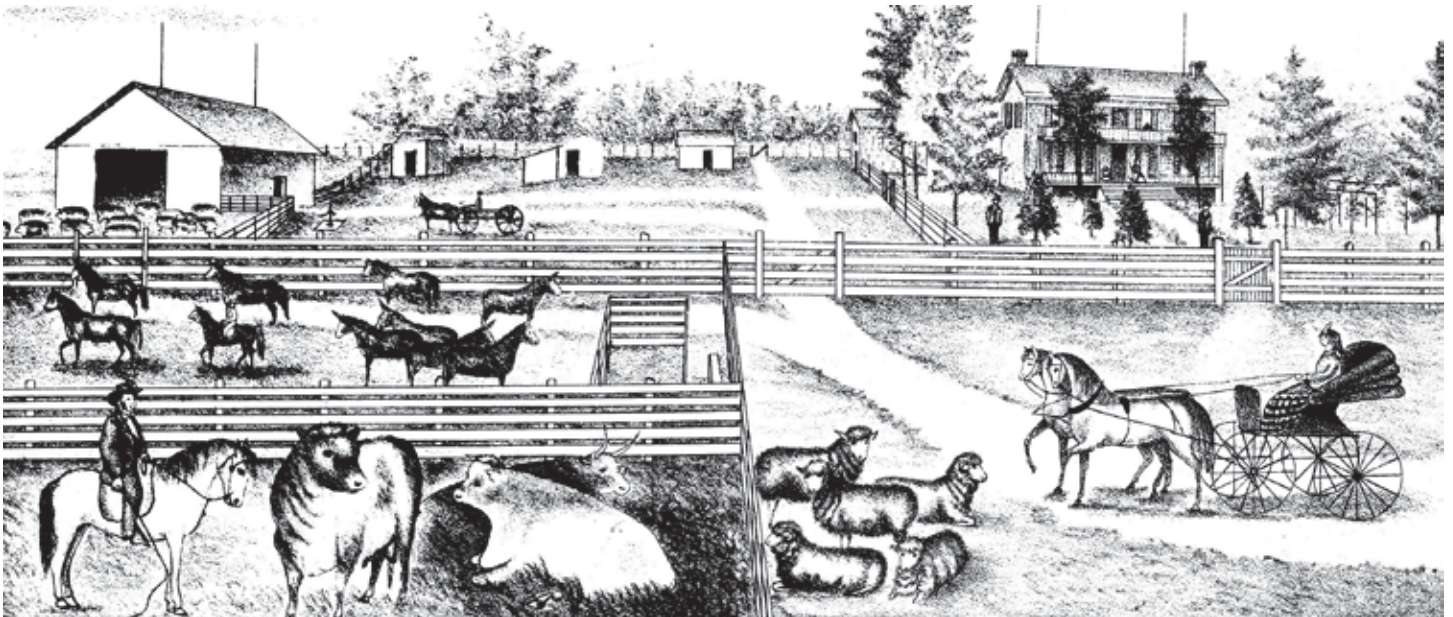
LESSON OVERVIEW

Lesson One:
Vocabulary

Lesson Two:
Mahaffie Animals and Their Jobs
Corn: Then and Now Part 1

Lesson Three:
Corn: Then and Now Part 2
19th Century Farm Problems

Lesson Four:
Crossword Puzzle



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LESSON 1 INSTRUCTIONS

Review the provided vocabulary list with your students. The list contains vocabulary about the nineteenth century farm life that will be discussed throughout this pre-visit lesson and the accompanying tour at Mahaffie.

Choose one of the three options for reviewing the vocabulary list.

1. As a class through recitation
2. In small groups, have students quiz each other on the terminology
3. Have students work individually and create a sentence for each of the vocabulary words.

The vocabulary review activity should take about 30 minutes to complete.

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VOCABULARY

1. **Draft Animal** – an animal used for pulling heavy loads
2. **Horsepower** – the power used by a horse when pulling
3. **Plow** – farm equipment with blades used to dig into the dirt to prepare it for planting
4. **Thresher** – farm equipment used to separate the grain from wheat
5. **Sickle** – short-handled farming tool used for cutting grain
6. **Ox** – large draft animal (plural is oxen)
7. **Mule** – the offspring of a donkey and a horse
8. **Blacksmith** – a person who makes and repairs things made of iron (metal)
9. **Crops** – a plant that is grown for food (grains, fruits, vegetables)
10. **Harvest** – time of the year when crops are removed from the ground
11. **Coop** – a cage for chickens
12. **Scythe** – long-handled farming tool used for cutting crops (pronounced s-eye-th)
13. **Till** – to prepare the soil for planting
14. **Acreage** – an area of land, typically farm land
15. **Agriculture** – another name for farming



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LESSON 2 INSTRUCTIONS

The first activity gives historical information on the Mahaffie farm and 19th century farming in general. The **Mahaffie Farm Technology** worksheet is an individual activity to help students learn about the types of technology 19th century farmers might have used. Students should read the information pages first to be able to match the description with the appropriate agricultural tool. Students can either cut out each description and each picture of a farming tool and match the correct items together, or they can just write the correct name next to each description. Go over answers as a class. This activity should take about 30 minutes to complete.

The second activity has two parts. The second part will be completed the next day. Students will learn about one of the biggest crops that the Mahaffie farm produced, corn. Students will learn about the uses of corn in the past and compare it to the many uses of corn today. Have students read **Part One** of the **Corn: Then and Now** worksheet. As a class, come up with a list of food items that students think are made from corn. Save the list to use in **Part Two** of the lesson tomorrow. Afterward, instruct students to look through their pantry, refrigerator, and freezer and find some food items that have corn as an ingredient. Using the back of the worksheet, have students make a list of some of their favorite foods that are made with corn, as well as some foods that they were surprised contained corn. Students can bring in some of the non-perishable food items to show the class.



JB MAHAFFIE HAD A FARM

MAHAFFIE FARM TECHNOLOGY

Most Americans lived on farms and relied on agriculture for their livelihood in the nineteenth century, as they had since the earliest days of settlement. It was not until 1920 that the number of Americans living in the city began to exceed those living on farms. In the mid-nineteenth century, at the time the Mahaffies moved to Kansas, agriculture began to move away from subsistence – what one family needed to live on – and became a business for more and more farmers. Changes in farming practices and farming technology made this possible.

J.B. Mahaffie acquired a prosperous 320-acre farm by the Civil War era. To give you some perspective, that's about the size of 242 football fields. In 1865, the average Johnson County farm contained 177 acres, almost half the size of the Mahaffie farm. The Mahaffie Historic Site today occupies about 22 acres of Beatty's original 320 acres.

The Mahaffies were part of the new world of agri-business. With one of the wealthiest farms in Johnson County in the 1860s and 1870s, Beatty could produce more food than his family needed. Local stories claim that Beatty Mahaffie was the first farmer in Johnson County to sell surplus wheat for profit. Beatty had four sons of varying age who could assist him with the farm, but even with a good-sized family, the Mahaffie farm needed more help to operate successfully and profitably.

Along with hired help, Beatty's ability to raise a surplus of crops for sale was no doubt due to improvements in farm technology. From the 1865 census we know the value of implements on a Johnson County farm averaged \$148. The value of implements on Beatty's farm was \$435. The average cash value of a Johnson County farm was \$1,670, while the value of Beatty's was \$6,000 (and \$12,000 by 1870.) It is reasonable to assume that Beatty owned at least some of the newest technology available.



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MAHAFFIE FARM TECHNOLOGY

The Mahaffie family settled in Olathe in the fall of 1857. For the first year, the family lived in a small house on a small plot of land until they had a team of oxen move the house to their new farm site. Now the work began to turn the land into a thriving farm.

Planting seed was not an easy task. First the prairie sod had to be broken. The ordinary wooden plow of that day was useless against the tough, tangled roots of the prairie grass. Centuries of grass had lived and died, and the tough roots were almost impossible to break. Mr. Mahaffie had to use a huge PLOW pulled by five or six yoke of oxen. This would cut a shallow furrow about twenty-four inches wide. This was said to sound “like the ripping of cloth.” Seeds would be dropped in groups of four and covered by dirt by someone in the family following the plow. The need for four seeds is explained in the little rhyme:

One for the worm and two for the crow
Leaves one seed there to grow.

By June the young plants were up, and the ground had to be hoed. There were not many weeds the first season, but the ground had to be loosened. The first crop was usually corn or flax, as food and clothing were pressing needs. For wheat, barley, rye, and oats, the soil had to be broken into finer pieces by dragging a heavy V-shaped timber called a **HARROW** over the ground. To plant the smaller seeds of these crops, the farmer would walk across the fields with a large bag of seeds hung over his left shoulder. With his right hand, he “broadcast” the seed by swinging his hand full of seed out and back in rhythm with his walking. When the plants came up, the farmer could see how evenly he had distributed the seed.



JB MAHAFFIE HAD A FARM

MAHAFFIE FARM TECHNOLOGY

By June the prairie grass was ready to be mowed and dried for cattle feed and other livestock uses. The grass was cut with a **SCYTHE**, spread out for drying, and stacked near the barn or sheds for use in the winter.

Small grains, such as wheat, rye, oats, etc., were harvested with a **CRADLE**, made by fastening a slender post with four parallel “fingers” to the scythe handle. With each swing of the cradle, the grain was laid in neat rows with the heads all lying in the same direction. This made it easy to rake them into piles and tie them into bundles with bands of straw, which were then set together for drying.

The dried grain had to be separated from the stalk. There were two ways of doing this “threshing.” One was by hitting the piles of stalks with a **FLAIL**, a piece of wood fastened to a handle with a wooden or leather hinge. The other way was to drive oxen or horses around and around over the stalks until the grain was trampled out. The bundles had to be turned over frequently to get as much of the grain out as possible.

In order to have only the grain left, the next step was to toss it in the air in baskets. The wind would blow away the straw and chaff (as the lighter bits were called), while the heavier grain would drop back into the basket. Another method was to use a **SCREEN** that would sift the grain from the chaff. It is possible that the Mahaffies owned a thresher, which did the work of a flail and a screen. Corn was usually gathered from the stalks using a **CORN KNIFE** and laid in the barn to dry. The husks would be removed from the ear using a **HUSKING PIN**.

Before the grains could be used for food they had to be ground. In the Mahaffie family, the younger children were often responsible for grinding the grains. The grain not only fed the family, but many of the animals on the farm too.

Pioneer farming was not an easy job. Most jobs were done by hand, which meant long working hours for the whole family.



JB MAHAFFIE HAD A FARM

MAHAFFIE FARM TECHNOLOGY WORKSHEET

Match each description with the correct farm tool.

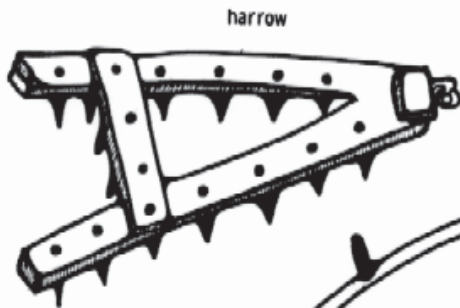
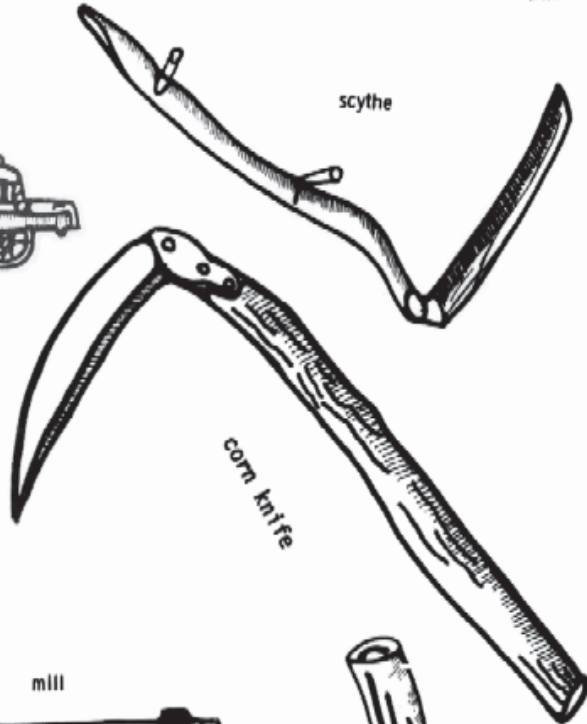
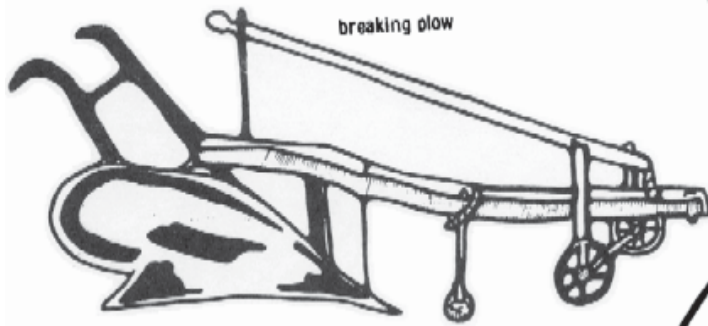
Not all of the farm tools will be used.

1. A tool used for cutting grain crops and laying them in rows.
2. Pulled by oxen, the farmer would use this tool to cut through the roots of the prairie grass.
3. This tool was used to separate the chaff from the grain.
4. This tool was used to beat the grain so that the grain would be separated from the stalks.
5. Grain or grass could be cut with this tool.
6. The farmer pulled this over the plowed ground to smooth the earth for planting.
7. Corn was cut from the stalk using this tool.
8. The husks would be separated from the ear of corn using this tool.

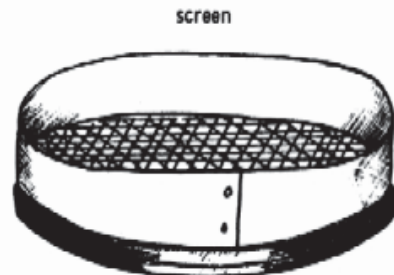
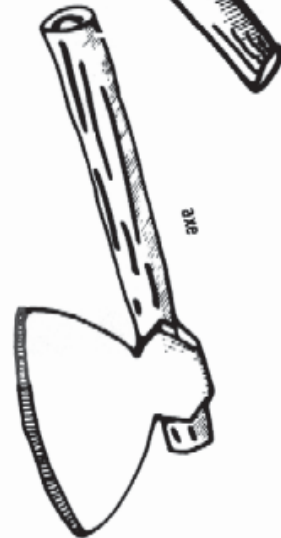
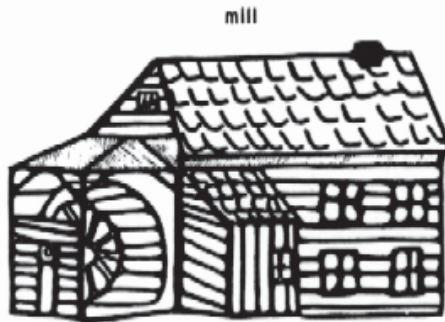
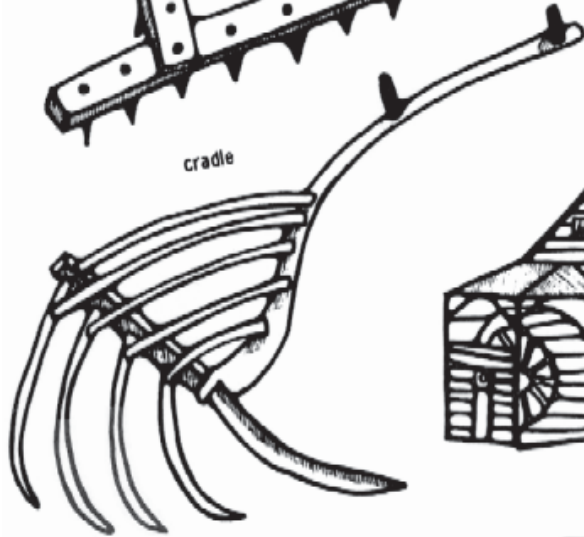


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MAHAFFIE FARM TECHNOLOGY WORKSHEET



corn knife



JB MAHAFFIE HAD A FARM

MAHAFFIE FARM TECHNOLOGY WORKSHEET

ANSWER KEY

1. Cradle
2. Plow
3. Screen
4. Flail
5. Scythe
6. Harrow
7. Corn Knife
8. Husking Pin



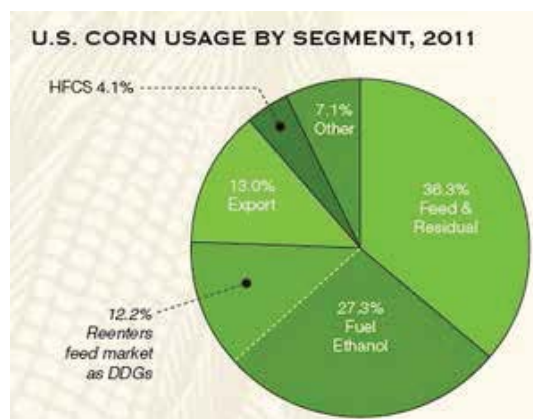
JB MAHAFFIE HAD A FARM

CORN: THEN AND NOW

The Mahaffies grew many crops that they used for personal consumption and also sold for extra income. One of the biggest crops produced on the Mahaffie farm was corn. The specific variety of corn they produced was called Bloody Butcher Corn. It got its name because of its blood red color.



In the 19th century, corn wasn't eaten the same way we eat it today. It was most often dried and ground down to a grain, then used as a corn flour to make bread. Corn grain was also used to feed the Mahaffie animals. Up until 1910, corn was the major crop grown in Kansas, until it was surpassed by wheat. Today, corn is America's largest legal cash crop, using 80 million acres of land for its production. Its uses are far greater than in the 19th century. Corn is still used a food source, but it is even used as an alternative fuel source, ethanol. Almost 1/3 of corn grown is used for ethanol fuel.



Think of some other uses for corn today. What types of ways do we consume corn? Think of some foods made from corn. Corn is an ingredient that can be hidden in many foods as high fructose corn syrup and partially hydrogenated corn oil.

JB MAHAFFIE HAD A FARM

CORN: THEN AND NOW

FOOD ITEMS MADE WITH CORN

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



JB MAHAFFIE HAD A FARM

LESSON 3 INSTRUCTIONS

Students should have done their homework by checking their pantry, refrigerator, and freezer for foods that are made with corn. Get out the list that the class made of foods they think might have corn in it and display it for the class to see. Next, have students volunteer what some of the foods were they found at home that are made with corn and start a new list for the class. After the students are done supplying answers, compare the two lists together and see if students are surprised by any of the foods. Part Two of this activity should take about 15 minutes to complete.

The second activity covers farm issues in the 19th century. Students will learn about some of the issues concerning farms and compare them with issues concerning farms today. Students will also learn about the ways farms handled these issues and speculate how they think farms today handle these same issues. The second part of this activity requires students to access the internet for research. Break students up into five different groups. Each group will research a different aspect of modern farming.

Group 1 – Irrigation

Group 2 – Pest Control

Group 3 – American Cash Crops

Group 4 – Modern Farm Technology

Group 5 – Current Issues with Farming

Give groups about 30 minutes to conduct their research. Once students are done researching, have each group give a short two-minute presentation on the information they found. This activity should take about 40-45 minutes to complete.



JB MAHAFFIE HAD A FARM

19TH CENTURY FARM PROBLEMS

Being a farmer in the 19th century was hard work. They faced many challenges, mainly drought, pest control, and climate issues. Farming technology was vastly different than it is today, so farmers had to be creative in how they dealt with these challenges.

Irrigation can be one of the biggest challenges a farmer faces. Without water, crops will dry out and die. In order to have a successful harvest, farmers needed to find ways to access water to irrigate their crops. Water for farming can come from three sources: rainfall and other precipitation, surface water, and groundwater. It is hard for farmers to depend on rainfall to irrigate crops since the amount of rainfall varies each year. To keep their crops irrigated, many farmers found ways to tap the underground water supply.

The introduction of the windmill helped farmers tap the underground water supply. Although windmills were used for some irrigation of crops, such as fruits and vegetables, their primary function was pumping water for households and livestock. Windmills were manufactured in several Kansas towns.

Even with these irrigation techniques, a drought could destroy a farm. During a drought, the three main water sources would dry out. There would be little to no rainfall, river levels would drop, and groundwater would dry up. Kansas farmers were at the mercy of the climate, and what a harsh climate it was. Winters were bitterly cold, and summers were blisteringly hot. The traditional spring wheat didn't grow well in Kansas, because it was harvested at the end of the summer when the temperatures were the highest. Instead, farmers turned to winter wheat, which was planted in the fall and harvested in the cooler months of spring. The snowfall during the winter months kept the seeds and soil moist, so the crops were sheltered from summer droughts. Farmers found a way to work with Kansas' climate instead of against it.

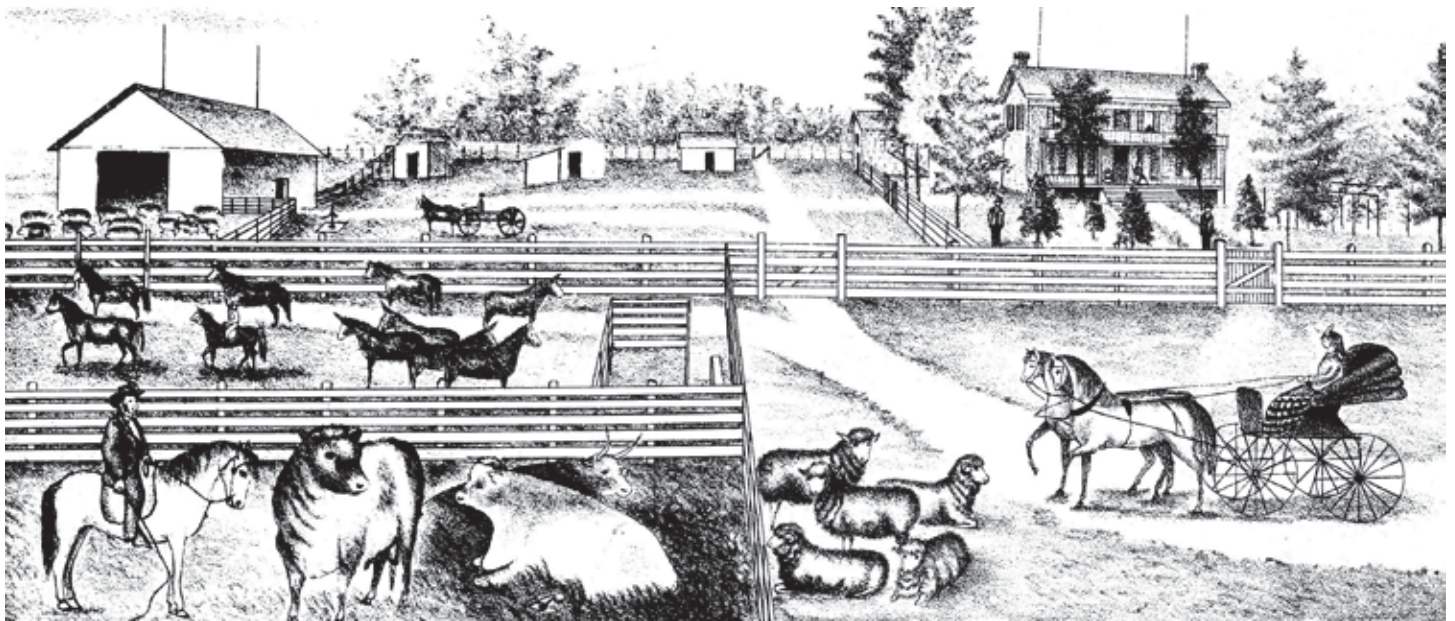
In 1874, Kansas farms were hit by a major catastrophe, the grasshopper plague. Millions of grasshoppers, traveling down from South Dakota to Texas, hit farms in Kansas and ate everything they landed on. Crops were decimated, as were wooden fences and wooden handles on farm equipment. The losses to Kansas' farms were devastating. Farmers tried to keep the grasshoppers off their crops, but there were just too many of them. People all over the country came to the aid of Midwest farmers, offering surplus crops and other supplies to help the families survive through the winter months.



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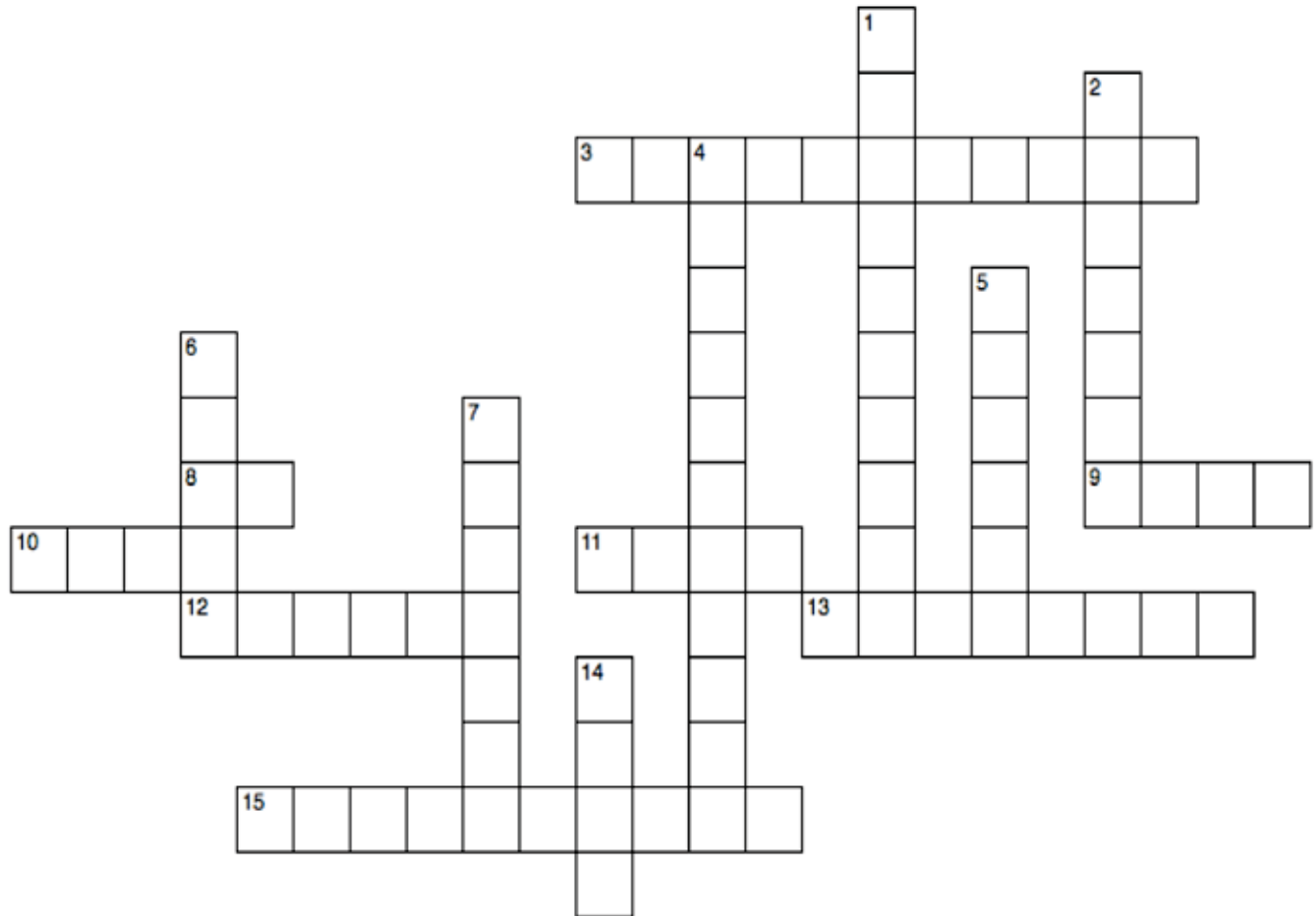
LESSON 4 INSTRUCTIONS

To make sure students are ready to go on the tour at Mahaffie, students will complete a crossword puzzle and a matching worksheet on farm chores. The crossword should be completed individually, but make sure students understand that it is not a graded assignment. Go over the answers as a class to make sure students all know what the correct answers are.



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CROSSWORD PUZZLE



Across

3. An animal used for pulling heavy loads
8. Large draft animal
9. To prepare the soil for planting by loosening the dirt
10. A cage for chickens
11. The offspring of a donkey and a horse
12. Short-handled farming tool used for cutting grain
13. Farm equipment used to separate the grain from wheat
15. The power used a horse when pulling

Down

1. A person who makes and repairs things made of iron
2. Time of the year when crops are removed from the ground
4. Another name for farming
5. Long-handled farming tool used for cutting crops
6. A plant that is grown for food
7. An area of land, typically farmland
14. Farm equipment with blades used to dig into the dirt to prepare it for planting



JB MAHAFFIE HAD A FARM

CROSSWORD PUZZLE ANSWER KEY



JB MAHAFFIE HAD A FARM

POST-VISIT ASSESSMENT

For the post-visit assessment, students will write a short essay. They need to answer one of the following two questions.

1. Would you want to grow up on the Mahaffie Farm? Why or why not?
2. What do you like more or less about being a teenager today as opposed to being a teenager on the Mahaffie farm?

Give students about 30-45 minutes to write their essay. When students are finished, ask for volunteers to share their answers with the class. Students can take their essays home to share with their parents.

