

# Corn: Then and Now

## Grades 4-6

### English Language Arts

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### Objectives

Students will read about the importance of corn in our lives and in the lives of ancient people. Students will research to learn about corn traditions and growing practices, then and now. Students will research some corn myths and legends and act them out.

### Vocabulary

**domesticated**—adapted to living with human beings and serving their purpose

**ethanol**—a colorless, volatile, pungent liquid made from corn which can be burned as a fuel

**maize**—Native American name for corn, also called Indian corn

**porridge**—a soft cereal or meal boiled in water or milk until thick

**silage**—the remaining part of the plant after the corn ears have been harvested—it is collected, stored in silos, and used for feed

**utilitarian**—the quality or property of being useful.

### Background

Corn is a grass, native to the Americas. The exact origin is unknown, but tiny ears of corn have been discovered at ancient village sites and in tombs of early Americans. Evidence of corn in central Mexico suggests it was used there as long as 7000 years ago, where it was **domesticated** from wild grass. Cultivated corn is known to have existed in what is now the southwestern US for at least 3000 years. In the United States, many of the various Native American tribes have traditionally grown corn—also known as **maize**—and used it for both food and **utilitarian** purposes. Eastern tribes shared their knowledge of corn production with early European settlers, an act which saved many from starvation.

Early American colonists dried corn and ground it as meal for flour. They used the ground corn in **porridge**, cake and bread. Fresh, or sweet corn, the kind we like to eat as corn on the cob, was not developed until the 1700s. Before then corn was only used in its dried form.

Along with wheat and rice, corn is one of the world's major grain crops. It is the largest grain crop grown in the US. About 9 percent of all the corn grown is used to produce food for humans. These foods include corn meal and other food products such as cooking oils, margarine, and corn syrups and sweeteners (fructose). Sixty four percent of all corn grown is used as feed for livestock.

Corn cobs have been used in the manufacturing of nylon fibers and as a source for producing degradable plastics. **Ethanol**, a renewable fuel made from corn, has the potential to become a major renewable fuel for the world's automotive industry.

Corn can be produced in much of Oklahoma, but primary production is in the Panhandle area and on the Eastern side of the state. In Oklahoma, corn is harvested for either grain or **silage**, with most of the grain going to dairies, animal feeding operations, and poultry operations. In an average year, around 25 million bushels are grown for grain in Oklahoma, with a yield of 130 bushels per acre. One bushel of corn is equal to 56 pounds.

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Corn is pollinated by wind and is typically planted in 30-inch rows. A single seed (or kernel) of corn may produce a plant which yields more than 600 kernels of corn per ear. On one acre of land, anywhere from 22,000 to 35,000 individual plants may be grown.

Hybrid corn is developed to produce from one to two ears per plant. Ears per plant is often determined by moisture availability. Through better soil conservation practices, fertilizer use, better seed quality, and water availability, corn yields have increased 125 percent since 1950.

### Additional Reading

- Braman, Arlette, and Michelle Nidenoff, *Secrets of Ancient Cultures: The Maya—Activities and Crafts From a Mysterious Land*, Jossey-Bass, 2003.
- Courlander, Harold, and Enrico Arno, *People of the Short Blue Corn: Tales and Legends of the Hopi Indians*, Henry Holt, 1996.
- Curry, Jane Louise, *The Wonderful Sky Boat: And Other Native American Tales from the Southeast*, McEldery, 2001.
- Fussell, Betty, *Story of Corn*, University of New Mexico, 2004.
- Hakim, Joy, *The First Americans, Third Edition: Prehistory—1600 (A History of the US, Book 1)*, Oxford, 2002.
- Hamilton, Virginia, and Barry Moser, *In the Beginning: Creation Stories From Around the World*, Harcourt, HMH Books for Young Readers, 1991.
- Hunger, Sally M., and Joe Allen, *Four Seasons of Corn: A Winnebago Tradition (We Are Still Here)*, Lerner, 1996.
- Johnson, Sylvia, *Tomatoes, Potatoes, Corn, and Beans: How the Foods of the Americas Changed Eating Around the World*, Atheneum, 1997.
- Landau, Elaine, *Corn (True Books—Food and Nutrition)*, Children's 2000.
- Mann, Elizabeth, and Amy Crehore, *Macchu Picchu: The Story of the Amazing Inkas and their City in the Clouds (Wonders of the World Book)*, Mikaya, 2000.
- Nielsen, Michelle I., *The Biography of Corn (How Did That Get Here?)*, Crabtree, 2007.
- Parke, Marilyn, and Sharon Panik, *A Quetzalcoatl Tale of Corn (Legends From Mexico and Central America)*, Good Apple, 1992.
- Politi, Leo, *Three Stalks of Corn*, Aladdin, 1994.
- Rhoads, Dorothy, *The Corn Grows Ripe*, Puffin, 1993.
- Shemie, Bonnie, *Mounds of Earth and Shell: Native Sites: The Southeast*, Children's, 1994.
- Sherman, Pat, and R. Gregory Christie, *The Sun's Daughter*, Clarion, 2005.
- Wells, Rosemary, *Through the Hidden Door*, Puffin, 2002.
- Wood, Tim, *The Incas (See Through History)*, Viking, 1996.

### Websites

- <https://www.indigenouspeople.net/thehermi.htm>
- <https://www.firstpeople.us/FP-HTML-Legends/TheSignsofCorn-Sioux.html>
- <https://www.legendsofamerica.com/na-sioux-corn/>
- <http://www.ilhawaii.net/~stony/lore73.html>
- <http://www.ilhawaii.net/~stony/myths10.html>
- [https://www.campsilos.org/mod3/students/c\\_history2.shtml](https://www.campsilos.org/mod3/students/c_history2.shtml)

# Corn: Then and Now

## Activity 1: History of Corn Reading Page, (ELA) 1-2 50 minute class periods

Students will read about the history of corn. They will identify the main idea and supporting details.

### Oklahoma Academic Standards

#### Activity 1: History of Corn Reading Page (ELA)

- |         |   |
|---------|---|
| 4.3.W.2 | Students will write facts about a subject, including a clear main idea with |
| 5.3.W.2 | supporting details, and use transitional and signal words.                  |
| 6.3.W.2 |   |

### Materials

- Activity 1 Reading Page “**History of Corn**”
- Activity 1 Worksheet 1 “**History of Corn Main Idea**”

### Procedures

1. Read and discuss background and vocabulary.
  - Discuss the vocabulary either before the discussion, as an introduction, or after the discussion, with a focus on context clues.
  - Ask students what they know about corn, early civilizations’ dependence on it, and how corn influenced ancient beliefs, culture, and religion.
2. Give students the “History of Corn” reading page and the “History of Corn Main Idea” worksheet.
  - Students will identify the main idea and supporting details from the passage
3. Students will use context clues to determine the meaning of words.

Corn is a grass, native to the Americas. The exact origin of corn is unknown. Tiny ears of corn have been found at ancient village sites and in tombs of early Americans. Signs of corn in central Mexico suggests it was used there as long as 7000 years ago. Mexico is where corn was **domesticated**, or first planted for human use. Corn was first grown from wild grass.

Planted corn is known to have grown in what is now the southwestern United States for at least 3000 years. In the United States, many of the Native American tribes have traditionally grown corn. They called corn **maize**. They used corn for both food and decoration. Eastern tribes shared their knowledge of corn with early European settlers. This saved many settlers from going hungry.

Early American colonists dried corn and ground it as meal for flour. They used the ground corn in cereal, cake and bread. Fresh, or sweet corn, the kind we eat as corn on the cob, was not grown until the 1700s. Before then corn was only used in its dried form.

Along with wheat and rice, corn is one of the world's major grain crops. It is the largest grain crop grown in the U.S. About 9 percent of all the corn grown is used to make food for people. These foods include corn meal and other food products such as cooking oils, margarine, corn syrups and sweeteners (fructose). Sixty four percent of all corn grown is used as feed for livestock.

Corn cobs have been used to make nylon fibers and as a source for making degradable plastics. These can be slowly broken down into smaller parts. **Ethanol** is a fuel made from corn. Most gas now sold in the U.S. is about 10 percent fuel ethanol by volume. In 2019, about 14.5 billion gallons of fuel ethanol was used in the United States.

Corn can be grown in much of Oklahoma, but the main regions are in the Panhandle and on the Eastern side of the state. In Oklahoma, corn is harvested mostly for either grain or **silage**. Silage is food for farm animals that is stored inside a silo. Most of the grain harvested goes to dairies, animal feeding operations, and poultry operations. In an average year, around 25 million bushels are grown for grain in Oklahoma, with a yield of 130 bushels per acre. One bushel of corn is equal to 56 pounds.

Corn is pollinated by wind and is usually planted in 30-inch rows. A single seed (or kernel) of corn may produce a plant which yields more than 600 kernels of corn per ear. On one acre of land, anywhere from 22,000 to 35,000 individual plants may be grown.

Hybrid corn is developed to produce from one to two ears per plant. Ears per plant is often determined by moisture. Through better soil conservation practices, fertilizer use, better seed quality, and water availability, corn yields have increased 125 percent since 1950.

# Corn: Then and Now

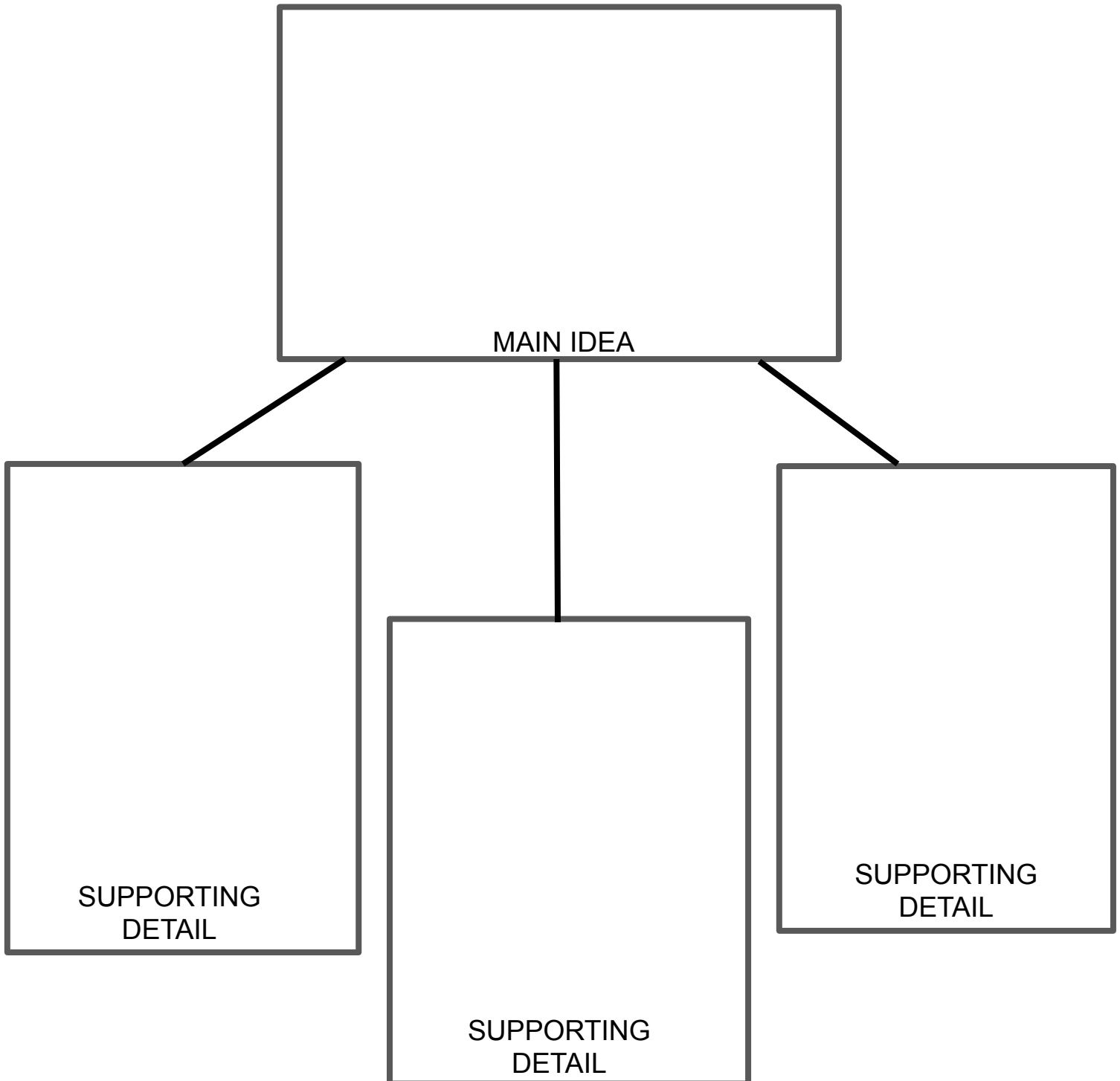
## Activity 1 Worksheet 1: History of Corn



Name: \_\_\_\_\_ Date: \_\_\_\_\_

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In your own words, summarize the “History of Corn” reading passage. Include the main idea and at least three supporting details that are facts. Once you identify these, rewrite them in paragraph form on another paper.



When conducting research, make sure you use reliable information from legitimate sources. Reliable information is well-researched from sources that are well-respected and as objective, or neutral, as possible. The best way to find legitimate sources is to go to the library and use scholarly journals, reference books and other well-researched sources.

Another place to find information is the Internet. Conducting research on the Internet is convenient, but it can also be tricky. There are many thousands of Web pages that have little actual content and are mainly links to other pages, which may be links to other pages, and so on. Anyone can post anything to the Internet. To make sure you have found a reliable source of information, ask yourself these questions:

1. Who is responsible for the Web site? Is the Web page associated with a reliable organization, such as a university or a government agency? What interest does the organization responsible have in the information presented. For example, will the organization profit from the information presented?
2. Who wrote the information? If the author is not listed or has no credentials, it may not be a credible source. Pay attention to the author's credentials or experience. Is the source really an authority on this particular matter or someone with an impressive title that has no connection to the subject matter?
3. When was the information written? Is it current? Is it still relevant?
4. Are there other sources that agree with statements made on the site, or do other sources contradict this source? In that case you may need to search further. It's always a good idea to gather more than one source.
5. Are any sources cited? If the author does not document anything, then the information may simply be someone's opinion. If statistics used come from a survey, how was the data gathered? Who conducted the survey or poll? Was the sample representative of the population? How many were surveyed? What percent of the population?

*When choosing between the library and the Internet keep in mind that up to 90 percent of the contents of college library collections are not on the Internet. Because of copyright laws it is too expensive to put all scholarly work on the Internet. This means that the most comprehensive source of information is still the library.*

# Corn: Then and Now

## Activity 2: Corn Myths and Legends, (ELA) 1-2 50 minute class periods

Students will research corn myths and legends. Students will create a research question, research to find the answer, and organize their information into a report to share with the class.

### Oklahoma Academic Standards

#### Activity 2: Corn Myths and Legends (ELA)

4.6.R.1                      Students will use their own viable research questions to find information about a  
5.6.R.1                      specific topic  
6.6.R.1

4.6.R.3                      Students will determine the relevance and reliability of the information gathered.  
5.6.R.3  
6.6.R.3

4.6.W.1                      Students will generate a viable research question about a specific topic  
5.6.W.1  
6.6.W.1

4.6.W.2                      Students will organize information found during research, following a modified  
5.6.W.2                      citation style (e.g., author, title, publication date) with guidance and support.  
6.6.W.2

### Materials

- Computer or library access
- “**Are Your Sources Reliable?**” information page
- Activity 2 Worksheet 1 “**Are Your Sources Reliable?**”
- Activity 2 Worksheet 2 “**Importance of Corn**”
- Activity 2 Worksheet 3 “**Corn Myths and Legends**”

### Procedures

1. Divide students into groups for discovery and study.
  - Each group will choose one of the early Native American civilizations of North and Central America (Mayan, Inca, Mound Builders, Cliff Dwellers, Pueblo, Aztec, Olmec, Zuni, Anasazi, Cahokia)
  - Review “**Are Your Sources Reliable?**” and remind students to check reliability of sources.
  - Groups will use online and library resources to discover and report on the importance of corn for the chosen civilizations using Worksheet 2 “**Importance of Corn.**” Students will consider the following questions as they conduct their research:
    - How and where did the people plant corn?
    - How was corn used in people’s daily lives (food, products, storage, etc.)?
    - Who took care of the corn (planting, weeding, harvesting, storage)?
    - What were some beliefs about corn? Were there any ceremonial rituals associated with corn?
    - How did the abundance or lack of corn affect the growth or demise of the culture/civilization?

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2. Students will report on selected civilizations by recording information on graph.  
—Students will compare and contrast the information gathered for the other civilizations.
3. Each group will use an online search engine or the library to find a myth/legend about the history of corn.  
—Students may select a myth or legend from the list below or research to find their own myth or legend about corn.  
—Provide each student with Worksheet 3 “**Corn Myths and Legends**”

## **Websites to visit for myths/legends:**

The Hermit, or the Gift of the Corn: <https://www.indigenouspeople.net/thehermi.htm>

The Signs of Corn: <https://www.firstpeople.us/FP-HTML-Legends/TheSignsofCorn-Sioux.html>

The Forgotten Ear of Corn: <https://www.legendsofamerica.com/na-sioux-corn/>

How Corn Came to the Earth: <http://www.ilhawaii.net/~stony/lore73.html>

The Coming of Corn: <http://www.ilhawaii.net/~stony/myths10.html>

Corn, the Sauk, & Mesquakie Indians:

[https://www.campsilos.org/mod3/students/c\\_history2.shtml](https://www.campsilos.org/mod3/students/c_history2.shtml)

## **Extension**

1. As an extension, students can create a Venn diagram using background information, their research and worksheet information to compare the history of corn through myth and legend and the role of corn in our lives today.
2. Students will use online or library references or interview members of an Oklahoma tribe to find out which Oklahoma tribes have corn as an important part of their traditions. Students will report on the traditions.
3. Students research online or in the library to find the legend and record where it originated.
4. Students will work together in their groups to prepare a skit, rap, song, etc., to present the myth or legend to the class.  
—Presentations should be no longer than three minutes and involve every group member.  
—Groups should prepare costumes, visuals, and necessary props for their presentations.
5. Students will use online or library resources or interview a farmer or county Extension educator to learn about modern growing practices for corn. Students will compare the modern practices with the traditional ancient practices.



# Corn: Then and Now

## Activity 2 Worksheet 1: Are Your Sources Reliable?



Name: \_\_\_\_\_ Date: \_\_\_\_\_

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<i>Website Name</i>	<i>Website Organization</i>	<i>Date/Year Written</i>	<i>Writer Name</i>	<i>Sources Cited</i>	<i>How I Found the Site</i>	<i>Legitimate or Not?</i>

# Corn: Then and Now

## Activity 2 Worksheet 2: Importance of Corn



Name: \_\_\_\_\_ Date: \_\_\_\_\_

<b><i>Name of Civilization</i></b>	<b><i>How/where did people plant corn</i></b>	<b><i>How was corn used in daily lives</i></b>	<b><i>Who took care of the corn</i></b>	<b><i>What were some beliefs about corn</i></b>	<b><i>Ceremonial rituals associated with corn</i></b>	<b><i>Abundance/lack of corn effect on civilization</i></b>
<b><i>Mayan</i></b>						
<b><i>Inca</i></b>						
<b><i>Mound Builders</i></b>						
<b><i>Cliff Dwellers</i></b>						
<b><i>Pueblo</i></b>						
<b><i>Aztec</i></b>						
<b><i>Olmec</i></b>						
<b><i>Zuni</i></b>						
<b><i>Anasazi</i></b>						
<b><i>Cahokia</i></b>						

# Corn: Then and Now

## Activity 2 Worksheet 3: Corn Myths and Legends



Name: \_\_\_\_\_ Date: \_\_\_\_\_

<b><i>Name of Legend</i></b>	<b><i>Native American Culture</i></b>	<b><i>Place of Origin</i></b>	<b><i>Humans and Animals Involved?</i></b>	<b><i>Religious Beliefs</i></b>	<b><i>Male and Female Roles</i></b>
<b><i>The Hermit, or the Gift of the Corn</i></b>					
<b><i>The Signs of Corn</i></b>					
<b><i>The Forgotten Ear of Corn</i></b>					
<b><i>How Corn Came to the Earth</i></b>					
<b><i>The Coming of Corn</i></b>					
<b><i>Corn, the Sauk, and Mesquakie Indians</i></b>					