

Corn in Ancient America

Skills: Social Studies

Objective: Students will develop an understanding of the importance of corn to the survival of early civilizations of the Americas.

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 shown the possibility of becoming 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. 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.

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

P.A.S.S.

GRADE 6

Reading—1.1a; 3.1b; 5.1b

Writing—1.2; 2.7

Social Studies—1.1; 3.2

GRADE 7

Reading—1.1; 3.1a; 5.1b

Writing—1.2; 2.8

Social Studies—1.1; 4.1;
5.2

GRADE 8

Reading—1.1; 3.1a; 5.1a

Writing—1.2; 2.8

Social Studies—1.1; 2.2

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.

Activities

1. Read or discuss the background information and vocabulary with students.
2. Discuss and list the early Native American civilization of North and Central America (Mayan, Incan, mound builders, cliff dwellers, Pueblo, Aztec, Olmec, Zuni, Anasazi, Cahokia, etc.)
 - Discuss locations of civilizations on your list.
 - Students find locations on a world map.
 - Students use encyclopedias or other resources to find the approximate dates of each civilizations and develop a time line for the civilizations.
3. Divide students into groups for discovery and study.
 - Each group chooses one of the civilizations listed in previous discussion.
 - Review “Are Your Sources Reliable?” from the “Resources” section.
 - Groups use resource materials, including websites, to discover and report on the importance of corn for their chosen civilizations. Assign one of the following questions to each group:
 - 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?
 - Track the movement of corn from the region where it originated.
 - How did European colonists adapt corn to their needs?
 - Students will report on selected civilizations by recording information on a class graph, with the questions along the side and the civilizations listed on the bottom.
 - Students compare and contrast the information gathered.
 - Lead a discussion about the importance of corn in our lives today. Could we live without corn and corn byproducts? Are there any corn rituals/ceremonies still practiced today?

Resources Needed

computer and/or resource materials

large class map of North and Central America

atlas or access to maps for individual students

Extra Reading

Aveni, Anthony, *The First Americans, The Story of Where They Came From and Who They Became*, Scholastic, 2005.

Bial, Raymond, *Corn Belt Harvest*, Houghton-Mifflin, 1991.

Braman, Arlette, and Michelle Nidenoff, *Secrets of Ancient Cultures: The Maya—Activities and Crafts From a Mysterious Land*, Jossey-Bass, 2003.

- Brown, Dale, ed., *Mound Builders and Cliff Dwellers*, Time-Life, 1992.
- Ciment, James, *Scholastic Encyclopedia of the North American Indian*, 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, 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 L., *The Biography of Corn (How Did That Get Here?)*, Crabtree, 2007.
- Rhoads, Dorothy, *The Corn Grows Ripe*, Puffin, 1993.
- Shemie, Bonnie, *Mounds of Earth and Shell: Native Sites: The Southeast*, Children's, 1994.
- Wells, Rosemary, *Through the Hidden Door*, Puffin, 2002.
- Wood, Tim, *The Incas (See Through History)*, Viking, 1996.

Vocabulary

- cultivate**—to prepare land for the raising of crop
- 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.
- pollinated**—pollen placed on the stigma of a plant for the purpose of creating seeds, flowers, fruit.
- 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.
- soil conservation**—a protection from loss, waste, etc. of soil through efficient farming methods.
- utilitarian**—the quality or property of being useful.