

LESSON I: THE HISTORY OF CORN

Preparation for Ingredients: Corn, Bean, Squash, Tortilla, Soup Broth, Oil, Vinegar

OVERVIEW:

Students will learn about the history of corn. They will also learn about a traditional method of growing corn with other crops in a system called *la milpa*. This ancestral agricultural method has been practiced for thousands of years, is sustainable, and uses complementary crops to improve crop *yields*.

OBJECTIVES:

After this lesson, students will be able to:

- **Detail** the *general* history of corn.
- **Describe** what the Three Sisters are and how each plant complements the others.
- **Explain** how the process of corn transitioned historically from the ancient civilizations.
- **Explain** the cultural significance of corn and *la milpa*.

VOCABULARY:

- Corn
- Domestication
- La milpa
- Maize
- Sustainable farming
- Three sisters

LEARNING ACTIVITIES:

1. Warm-up (5 min)

- Purpose: Students will think about how corn is all around them, from food to everyday products.
- Split students up into small groups.
- Have each group separate the items into what they think contains corn and what doesn't. Alternatively, the students can be given magazines and told to cut out items

they believe contain corn. The items include: toothpaste, soda, salad dressing, crayons, hand sanitizer, cereal, tortillas, charcoal, meat.

They all contain corn or products made from corn!

Today, corn is processed into a variety of products. In this lesson, we're going to learn about the history of corn.

Origins of Corn

- Corn descended from a grass-like plant called teosinte.
- Teosinte is not edible because the outer shell is hard.
- Another word for corn is maize.

Domestication of Corn

- Domesticated means to breed corn from the wild grass-like plant to what we know as corn today.
- 9000 years ago, farmers domesticated teosinte.

1. There are various corn gods and spirits, as well as legends about corn.

- ii. Corn played a ceremonial role as well, with pollen or cornmeal being used in different rituals. Corn even became a clan symbol in many Native American cultures.
- iii. Today, indigenous groups hold ceremonies for corn when it is planted, throughout the growing season, and at harvesting time.
- iv. Watch the video: [Why Corn is the Most Sacred Crop](#)

Video Questions:

1. The Mayans have a Corn God. TRUE
2. Corn provides tall stalks for the squash to climb. FALSE
3. The Mayan Corn God is the Three Sisters. FALSE
4. Corn is grown with beans and squash. TRUE
5. Corn is used to make gas, paint, and soap. TRUE

The Three Sisters

As we saw in the video, corn, beans, and squash were grown together. They were called the *Three Sisters*.

1. They are planted together because they complement each other both agriculturally and nutritionally, although at the time, the indigenous peoples did not know about the nutritional benefits.
 - Instead, they attributed spiritual characteristics to each crop, and called each one a “sister.”
 - These crops have been at the center of agriculture and culinary traditions in many indigenous communities.
 - Corn sucks the nitrogen out of the soil, while beans provide nitrogen that fertilizes the soil. The squash plants keep the soil moist by shading the ground.
2. Nowadays, we know that the diet of the Three Sisters is balanced as well.
 - Corn provides important carbohydrates, beans are rich in protein and have amino acids that corn lacks, and the squash provides different vitamins and minerals.
 - They can be dried and used for food year round.
3. Growing multiple crops at once in the same space is an alternative for small-scale farmers to improve their *crop yield*. Using this method, they can have plenty of crops to harvest at once.
 - a. It also ensures that if one crop fails, the others might not so the farmer is more likely to have a successful year.
 - b. It is essentially crop rotation without actually rotating the crops!

La Milpa:

- Milpa is a *sustainable farming* method that has been practiced by the Mayans in Mesoamerica for thousands of years.
- Making la milpa is a sacred act that binds together the family and the community.

However, there are concerns about the future of la milpa.

- There are generational losses due to the youngest people not working in la milpa.
- Climate change has caused irregular weather patterns that make it difficult to plan planting schedules, as well as erosion, desertification, and flooding in some areas.

ACTIVITIES (15 Min):

- **Option #1:** Draw or record observations about the corn, bean, and squash. Or harvest, plant, or weed in the garden.
- **Option #2:** Teacher has prepared Three Sisters (corn, bean, squash), tortillas, soup broth, oil, and vinegar as ingredients to make food. At tables in small groups, come up with food recipes using the Three Sisters.

TEACHING NOTES:

- In some cultures, Corn was a respected deity, while in others, corn was special gift to the people from the Creator
 - Corn played ceremonial role in many tribes, with sacred corn pollen or cornmeal being used as ritual adornment and spiritual offerings
 - Corn is a common clan symbol in many Native American cultures
 - Indigenous groups today hold ceremonies for corn at planting time, throughout the growing season, and at harvesting time
 - Various corn gods and spirits, as well as legends about corn
- The Three Sisters method of farming involves planting corn, beans, and squash.
 - The three have been grown together for almost 5,000 years.
 - When the three are planted together, they complement one another.
 - Corn provides tall stalks for the beans to climb so they are not outcompeted by the squash vines on the ground.
 - Beans provide nitrogen to fertilize the soil and stabilize the corn stalks.
 - The leaves of the squash shade the ground to keep the soil moist and prevent weeds.
 - A diet of the Three Sisters is also complementary.
 - Corn provides carbs, beans are rich in protein and have amino acids that corn lacks, and squash is rich in different vitamins and minerals.
 - The three can also be dried and used year round.
- In la milpa, dozens of nutritionally and environmentally complementary crops are planted at once.
 - Maize lacks amino acids that beans have, and squash provides an array of vitamins absent in maize and beans.
- The concept of la milpa is sociocultural, involving interactions and relationships between farmers, as well as personal relationships with the crops and land.

- Making la milpa is a sacred act that binds together the family, the community, and the environment.
 - The traditional milpa is an unplowed, multi-crop field that sustains biodiversity and the animal habitats while producing food, spices, shelter, and medicine.
 - It is fertilized by compost, organic material, ashes, and manure. No chemical fertilizers are used.
 - It involves 2 years of cultivation and 8 years of allowing the land to remain fallow so natural regeneration can occur.
 - La milpa is constructed in multiple stages.
 - Stage 1: An area of the forest is cleared, and sometimes burned. For 2-3 years, Three Sisters are cultivated. Herbs, tubers, and other plants are cultivated as well to detract pests, enhance the soil, and help maintain the ground moisture.
 - Stage 2: Milpa evolves into a forest garden with the planting of quick-yielding fruit trees.
 - Stage 3: Fruit trees begin to produce fruit, as well as provide a canopy that blocks the sun and inhibits the growth of the crops from Stage 1. Canopy and hardwood trees are planted.
 - Stage 4: The forest garden is transformed into a hardwood forest, creating a high canopy. La milpa is now regenerated to look like it did before the area was cleared.
 - The modern Maya face challenges to their milpa system because of climate change and a generational loss of knowledge.
 - In recent years, irregular weather patterns, drought, erosion, and desertification has affected the productivity of la milpa.
 - Farmers are trying to make milpa farming more sustainable for the future by letting the land recover for 10-15 years rather than the usual 8 years.
 - Modern Maya are also trying to adapt their ancestral farming practices to preserve their traditional farms, crops, way of life, and culture.

REFERENCES:

- [Alliance for Science](#)
- [Brittanica.com](#)
- [Learn Genetics](#)

- [Native Languages](#)
- [Native Seeds](#)
- [Native Seeds: How to Grow a Three Sisters Garden](#)
- [Nixtamalization](#)
- [The Conversation](#)
- [ThoughtCo](#)
- [What is Nixtamalization?](#)
- [Why Corn is the Most Sacred Crop](#)