

LA IMPORTANCIA DE LA AGRICULTURA

By: Myles Hammack 9th-12th Spanish and English Teacher

Length of Lesson: Two 45-minute class periods

Audience: Spanish 3 Students

Spanish 3 TEKS:

- B.3 The use of age-level appropriate and culturally authentic resources is imperative to support the teaching of the essential knowledge and skills for languages other than English (LOTE). The use of culturally authentic resources in world language study enables students to make connections with other content areas, to compare the language and culture studied with their own, and to participate in local and global communities.
- C.1(A) Ask and respond to questions about and beyond the scope of everyday life with simple elaboration in spoken and written conversation.
- ≻ C.2

(A) Demonstrate an understanding of culturally authentic print, digital, audio, and audiovisual materials in a variety of contexts.

(D) Compare and contrast cultural practices from authentic print, digital, audio, and audiovisual materials.

 C.3(B) Narrate situations and events orally and in writing using connected sentences with details and elaboration.

National Ag Literacy Outcome:

Theme 5: Culture, Society, Economy, & Geography (High School Grades 9-12) T5.9-12.j Provide examples of how changes in cultural preferences influence production, processing, marketing, and trade of agricultural products

Lesson Introduction – Aztec Farming on Lake Texcoco (in Mexico):

Many of the farming techniques that the Aztecs used are familiar in today's world. However, since they did not have access to modern-day technology, the use of combines, plows, discs, etc., they had to come up with a way to feed hundreds of thousands of people using minimalistic tools.

DAY 1 (Information Day)

The first step is to explain the difference between modern-day farming and Aztec farming. First, show students pictures of John Deere and Farmall tractors. Part of their vocabulary lesson will



be to learn the Spanish word for tractor – "tractor." They will also be required to learn the words for combine and plow – "cosechadora" and "arado."



- 1) Facilitate a class discussion. Ask the following question.
 - What are these used for? Assuming that the consensus will be "for farming," ask students to think a little deeper.
- 2) If students do not produce a more complex answer, prompt them. Ask:
 - Are they used for plowing?
 - Are they used for planting?
 - Do you know if tractors can be used to do multiple jobs if different attachments are put on/replaced?
- Once these questions have been answered/attempted to have been answered, instruct students to create a list of 5 important uses of tractors. Give students 5 minutes to complete this task.
- 4) Once students have created this list, ask them to rank these from most important to least important.
- 5) Next, ask students to write the word "technology" next to the different phrases listed if technology is required for that action to be completed.
 - For example: If the student writes "To plant seeds" on their paper, they would need to write the word "technology" next that because technology was used in the process of planting the seeds.



- 6) After this is complete, ask students to utilize a device to look up Aztec farms.
- 7) Prompt students to answer the following three questions.
 - 1. Is this what you thought an Aztec farm would look like?
 - 2. Is/was technology used to create these farms?
 - 3. If tractors are not able to be used, how are crops/seeds planted and harvested?
 - Ask students to take 5 minutes to really think about how they answered the above questions. There are obvious differences between Texas farms and "chinampas," so students should be able to clearly answer these questions.
 - \circ $\;$ Ask for two to three volunteers to share their answers with the class.
 - Introduce "chinampas" to the class. Chinampas are floating farms or floating tracts of land where crops are grown. In the days of Aztecs and Tenochtitlan, chinampas were used to grow crops to feed the city as it had over 250,000 inhabitants. With less threats to the crops themselves, things such as hail and boll weevils are an insignificant danger to crops grown on chinampas. Lead an in-depth study of the use of chinampas with students and then explain the different crops that the Aztecs or "Mexia" people, as they were formerly called, grew. Corn and maize were cash crops for the Aztecs, and their diet heavily depended on the success of these crops being grown. Visit this website to learn more about Aztec culture:

https://www.ancient.eu/article/723/aztec-food--agriculture/.

- After leading the study on chinampas, show students the following twominute video clip from National Geographic to help further their understanding of chinampas and how they work. <u>https://www.youtube.com/watch?v=iiR_B0jz1qA</u>
- Conclusion Ask students:
 - In regards to agriculture, were the Aztecs ahead of their time?
- 8) Since the Aztecs were prominent in the 1400s, it is important for students to truly understand that the Aztecs were phenomenal architects and had water systems and farming techniques that rivaled the Romans. They were advanced in many aspects of living for that time period.



- Homework: Self Study
 - For homework, have students read the following article from Anahuac University: <u>https://www.anahuac.mx/generacion-anahuac/el-</u> regreso-de-laschinampas#:~:text=Caracter%C3%ADsticas%20de%20las %20chinampas,de%20tierra%20y%20materiales%20biod egradables.&text=En%20la%20chinampa%20se%20semb raba,el%20agua%20hasta%20tierra%20firme
 - Challenge students to understand classroom vocabulary while translating new words that they may have not previously known.
 - After reading the article, students must write five new facts that they learned about chinampas and five facts that they recognized from the classroom lesson.
 - Afterwards, students should take their new facts and compare and contrast the information with modern-day farming.
 - For example: Desde tiempos prehispánicos, las chinampas aztecas han permitido a los pobladores cultivar alimentos en espacios reducidos. (Since pre-Hispanic times, Aztec chinampas have allowed settlers to cultivate food in confined spaces.) Compare: Es similar a unas gentes que crecen cultivos en un jardín en sus hogares. (It is similar to some people who grow crops in a garden at their homes.) Contrast: Muchas granjas en EEUU requieren un tractor/una cosechadora porque del tamaño de la tierra. Chinampas no requieren un tractor/una cosechadora porque son pequeñas y se flotan sobre el agua. (Many farms in the US require a tractor/harvester because of the size of the land. Chinampas do not require a tractor/harvester because they are small and float over water.)
 - By doing this assignment, students will be able to continue learning about chinampas while also expanding their knowledge of the Spanish language.



Day 2 (The project)

*Note: Before starting Day 2, ask students to bring a cardboard box, a full water bottle, markers, and string.

By Day 2, students should know what chinampas are, how they work, and how they are utilized. However, hands-on learning is a better way to truly understand a concept as opposed to just lecturing. Day 2 challenges students to put their knowledge to work.

- With the information that students received on Day 1 and a photo of a chinampa, instruct students to create their own version of a chinampa using the supplies they were asked to bring. Students should also be allowed to go outside as a class to collect rocks and dirt. Collecting rocks and dirt will not count as a part of the 30 minutes students have to complete the project.
- Instruct students when to begin building their own floating farms. They will have 30 minutes to create a chinampa. It will be built inside of the cardboard box for there to be a mechanism for holding water. However, the cardboard box will represent drought as Lake Texcoco could have had fluctuating water levels and the Aztecs could not have predicted that. This activity is also timed because the Aztecs had to work hard to feed the people of Tenochtitlan. They did not have the option of creating and harvesting crops at a slow pace because there were so many people to feed. They also had to please Moctezuma (one of their most prominent leaders) and a myriad of gods.
 - The Aztecs did not have access to technology and modern-day machinery. The Aztecs were forced to use their ingenuity as students should be doing during this project. Students should complete this project alone because each student has a different way of processing information and their own creative ideas.
- At the end of 30 minutes, the class should walk around and analyze all projects. Each student will be asked to write a positive comment for each project that they see and analyze. Community sharing is great way to access other people's ideas. Give each student the opportunity to explain why they did what they did. Students will turn in their comments for a grade.
- Conclusion: End day 2 by facilitating a 3-minute class discussion over the similarities and differences in Aztec and Texas farming. The goal is that this



lesson helped students build a better understanding of the Aztec culture and how things were different in the 1400s compared to today.