

Fourth Grade Spring Lesson

California Rancho Kitchen Garden



Objective:

Students will learn about the various plants the missionaries and Native Americans used for food, medicine and home life during the time of the California Missions and Ranchos.

California State Content Standards:

1) *Science—Life Science.*

Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:

- a. Students know ecosystems can be characterized by their living and nonliving components.
- b. Students know that in any particular environment, some kinds of plants and animals survive well, some survive less well, and some cannot survive at all.
- c. Students know many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.

2) *Social Science.*

4.2 Students describe the social, political, cultural, and economic life and interactions among people of California from the pre-Columbian societies to the Spanish mission and Mexican rancho periods.

5. Describe the daily lives of the people, native and nonnative, who occupied the presidios, missions, ranchos, and pueblos.
 6. Discuss the role of the Franciscans in changing the economy of California from a hunter-gatherer economy to an agricultural economy.
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Lesson Outline:

A. Lesson

- a. Agricultural needs of missions and ranchos—food, medicine, housewares
- b. Use of a kitchen garden
- c. Plants of Native Americans v. plants brought by Missionaries

B. Garden Rules

C. Planting Plans

D. Plant

Seeds/Supplies:

Seeds:

Beans-Romano, Kentucky Wonder
Carrots-Nante or other small
Corn—hybrid, short season variety
Gourds-Big Dipper, Birdhouse
Cilantro
Onion--bulbs
California poppy

Transplants:

Tomatos—Sweet 100s or other fast-growing varieties
Peppers
Herbs—mustard, sage, lamb's ear, yarrow,
lemon balm, epazote, chia, parsley, thyme,
marjoram

Lesson:

Students grow crops that were commonly grown in Alta California on the missions and ranchos: beans, corn, ingredients for salsa (tomatoes, peppers, cilantro, onions), and medicinal herbs. Students also grow gourds, which were grown by local Native Americans and later on the missions and ranchos for use as serving and eating utensils, decoration and musical instruments (maracas).

- 1) At the time of the missions and ranchos, there were no grocery stores or refrigerators so they had to grow all their own food.
- 2) No pharmacies and very few doctors were available so the ranchos also grew their own herbs to use for medicine—heal stomachaches, headaches, wounds, etc.
 - a. Priests brought seeds of important herbs with them from Europe—thyme, mustard, marjoram, lemon balm. They would sew seeds into their vestments for transport.
 - b. Native Americans taught the missionaries about some of the native California herbs—poppies, sage, epazote (believed to prevent stomach gas from eating beans 😊), chia.
- 3) Crops that take a lot of space to grow and that they ate a lot of, such as corn and beans, would be grown in big fields on the rancho.
- 4) Herbs and vegetables used for seasoning or medicine would be grown on plots of land very near the kitchen, so the cooks could easily grab what they needed while they were cooking. This would be especially important for medicinal herbs that might be needed in an emergency.
- 5) In order to have food during both the summer and winter months, many of the vegetables they grew were eaten both fresh and also dried to be eaten later. Corn could be eaten fresh off the cob AND could be dried and ground into corn meal to make tortillas. Similarly, beans could be eaten as green beans fresh off the vine AND could be dried and later cooked in liquid and eaten in soup or as mashed or refried beans. Peppers and herbs can be eaten fresh or dried as well.
- 6) One of the traditional foods eaten on the ranchos was Posole. It was a meat stew usually made with pork mixed with carrots, onions and corn.

Planting Directions:

- 1) Beans: If planting beans must be planted with support such as a trellis. Make two rows one foot apart and $\frac{1}{4}$ inch deep. Support fence will run between the two rows. Plant seeds 1 inch deep and 2 inches apart along each row. Have students insert finger just up to first knuckle for depth. Do not have students cover seeds until all of row is planted so they keep spacing relative to their fellow students' seeds.
- 2) Corn: Corn should be planted in rows 1 foot apart. Plant seeds 1 inch deep and 3 inches apart. As with beans, have students insert finger just up to first knuckle for depth and again do not cover until all are planted.
- 3) Onions: Onion should be planted in rows 6 inches apart. Plant onion bulbs 3 inches deep and 1 inch apart (they will be harvested as green onions). Use fingers, marked, unsharpened pencils or dowels to poke holes in ground 3 inches deep. Instruct students about the top and bottom of onion bulb (Top is pointy, dried roots on bottom), and make sure they are putting bulbs in hole right side up. As with beans and corn, do not cover until all are planted.
- 4) Cilantro and other herbs from seeds: Cilantro should be planted in rows $\frac{1}{4}$ inch deep and 6 inches apart. Students should place seeds in row (do not dig hole) 1 inch apart. Students should pinch row closed and pat to cover rows after place seeds.
- 5) Gourds: Gourds are planted in two foot wide circles (or mounds if not in raised beds), 2-3 feet apart, or they may be planted along a trellis like the beans. Seeds should be planted 6-8 to a mound, 1 inch deep. Have students insert finger up to first knuckle for depth and do not cover seeds until all have been planted in the circle.
- 6) Tomatoes, herbs and peppers: Have students transplant plants approximately 18-24 inches apart. Key for successful transplanting: (a) have students dig hole same depth as seedling pot and 1 inch wider, (b) show kids how to gently remove plant from pot by placing hand gently around plant and overturning plant into their hand (rather than pulling out by stem), and (c) have students gently pat dirt down around plant to stabilize plant in new hole. If you are using individual tomato supports, these need to be placed around plant at time of planting.



Teacher Information

Fourth Grade Spring Lesson

California Rancho Kitchen Garden



Today your class will be planting a California Rancho Kitchen Garden. The students will plant vegetables and medicinal and culinary herbs that were commonly planted at the missions and ranchos. The students will learn:

- 1) Missions and Ranchos were isolated and had to grow all of their own food and medicines.
- 2) Priests brought some seeds with them for food; they also learned about and later grew Native American culinary and medicinal herbs.
- 3) They would grow herbs and some vegetables within the mission walls in the kitchen garden so that they were easily accessible for seasoning and health emergencies. Large crops such as corn and beans were grown outside of mission walls.
- 4) One of the traditional foods eaten at the Missions and Ranchos was Posole—stew of pork, carrots, onions, and corn.

This lesson teaches both fourth grade Science (Life Science) and Social Science (Native American) Content Standards.

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Please visit the garden regularly to see your garden grow! Hold an Open House in June to talk to your students about their garden.