

GILA CROSSING COMMUNITY SCHOOL GARDEN PROGRAM
VECHICH O'OTHAM E'ES
YOUNG PEOPLE PLANTING
2007-2008 proposed – not board approved

Umbrella Standard for the Garden Program:

By the time students are promoted from the eighth grade, they should have a comprehensive historical knowledge of the agricultural and cultural aspects of how plants and people interact in the desert. Paramount within this knowledge are the historical and current tribal agricultural practices.

Note: Each year builds on the knowledge base of the year before. The basic skills are reviewed for the transfer students and for building skills in all children. All students at every grade level will plant crops, weed, harvest, water, and eat what the garden provides. The focus of learning changes every year, becoming more complicated and detailed as students get older. Sometimes, however, it is necessary to go back to review basic level skills even at higher grades.

Pre-school Standard;

- Pre-school students should be able to identify the relationship between seeds and food.
- They will have experienced planting seeds and eating the food grown from those seeds.
- Teaching teamwork/how to work together

Goals;

Become familiar with growing plants, become comfortable in the garden.

Be able to recognize and name plants on sight.

Be able to recognize foods plants in the garden and know the names of the foods.

Activities:

Counting and sorting seeds. Identify plants and seeds, learn the names of plants.

Count plants in garden, count harvested vegetables, and identify bugs and plants in the garden. Explore freely and learn to not destroy valued plants. Name colors of plants and flowers. Start to know the letters for words in the garden. Eat fruits and vegetables. Send food home to families. Send plants and seeds home to families.

Kindergarten Standard;

- Students should be able to understand that plants and seeds have varied purposes, especially focusing on the different foods they provide.
- Students should be able to orally and visually identify differences among plants and vegetables in the garden and greenhouse.

Goals;

Become familiar with growing plants, become comfortable in the garden. Be able to recognize and name plants on sight. Learn to write names of plants and veggies. Eat foods from the garden and know the names of the foods, both written and verbal. Culture Teacher (CT) assists with both O’otham and Pee Posh.

Activities:

Counting and sorting seeds. Identify plants and seeds, learn the names and spellings. Count plants in garden; count harvested vegetables, writing names on bags. Identify bugs and plants in the garden. Learn differences among plants. Plant, weed, harvest, and eat a variety of fresh produce.

First Grade Standard;

- Students should understand that plants need to be cared for to be productive.
- CT teaches Respect & Responsibility for Community, Family, Self & Plants
- Students should be aware of corn (*Hu:n*) as one of the three sisters plants.

Goals;

Grow a crop of corn, knowing the life cycle and stages.
Be able to recognize and name plants on sight.
Eat foods from the garden and know the names of the foods.

Activities:

Continue to identify plants and seeds, learning names and spellings; count plants in garden, and count harvested vegetables. Identify bugs and plants in the garden. Learn differences among plants. Help with soil preparation and improvement. Focus on building soil for corn. Explore the range of corn colors and uses around us. Grow some corn seeds in science to see how different conditions affect growth. Try eating baby corn sprouts in the greenhouse.

Second Grade Standard;

- Students should understand the role that soil plays in the production of food.
- Students should be aware of beans (*Mu:n*) as the second of the three sisters of traditional crops.

Goals;

To successfully grow and eat beans in the garden. Document the stages of the plant, flower and seedpod. Be able to recognize and name more plants on sight and in written format. Eat more foods from the garden and know the names of the foods. Be able to list foods in the lunch meals and identify the plants they grew from.

Activities:

Grow beans in the greenhouse and garden. Use bean seeds in science experiments. Draw and label bean plants and label parts. Explore diets and benefits of worms and other beneficial garden creatures. CT teaches how we live with other creatures that have a job to do, just like us. Look at soil types in science activities. Analyze different soils at school.

Press bean flowers into bookmarks. Collect food for worms. Conduct science experiment with worm bin. Help build soil for younger students.

Third Grade Standard;

- Students should understand the importance of sharing with family and neighbors as a cultural value and responsibility.
- Students will learn about squash (*Ha:l*) as the third of the three sisters crops.

Goals;

Become familiar with the different types of squash, and learn the health benefits of eating squashes. Recognize uses for squash in foods consumed.

Grow enough food to share with elders in the community several times in the year.

Activities:

Draw pictures of different types of squash. Grow squash seeds in the greenhouse and gardens for science activities. Document the life cycle of the plant. Eat the seeds of pumpkins and squashes. Harvest and help deliver vegetables from the garden to elderly feeding programs. **CT** teaches about the importance of sharing and taking care of the whole community. **CT** teaches the story of the *Ha:l*, traditional storage or *Ha:l, Kai*, and baskets. Write notes to go with the deliveries of food. Assist in taking food to the clinic, Head Start Program, or to District 6 Elders Program.

Fourth Grade Standard;

- Students should become aware of historical and current uses of desert plants in both nutritional and cultural contexts.
- Students will understand how foods work together in a society to build community.

Goals;

To host and serve a Traditional and Desert Foods Banquet at the end of the year.

To grow food for the banquet. To have plants and food to give away at the banquet to the community members who attend. To incorporate history and language lessons into the banquet presentations.

Activities;

Host and help prepare the annual banquet of Desert Foods. Write recipes and follow recipes. Write invitation letters and compile lists. Create decorations and Harvest desert foods for the banquet. Dry chilies to make chili powder for the recipes.

Write about what we learned doing the banquet. Write thank you letters for teachers and partners. Visit the resort to meet the chefs and see what their job is like.

Culture Teacher Activities

Teach students to greet guests in O’otham so students can serve as greeters.

Assist with drying and storing traditional foods during the school year for this purpose.

Assist classroom teachers in making placemats with O’otham labeling.

Teach students traditional dances to perform on the stage.

Fifth grade Standard;

- Students should become aware of the concept of longevity in plants, focusing on multi-year and perennial crops.
- Students should be aware of the nutritional values of fruits.

Goals;

Students should each create a propagated pomegranate (*kalnayo*) tree to take home at the end of the year. Students should have tried twenty five (25) different types of fruits in class. Students should understand the process of propagation. Students should be able to describe the flavors of fruits in written and oral form.

Activities;

Propagate fruit trees. Take cuttings from trees and plants to propagate. Care for the orchard at the school. Plant new trees, fertilize existing trees, and prune trees. Eat various types of fruit in class, and keep track of preferences. Do a geography unit to track where all the fruits come from historically and currently. Lay out the history on a world map.

Sixth Grade Standard;

- Students should be able to understand the importance of agriculture in historic and contemporary times.
- Students should be aware of the importance of work as a responsibility and a value.

Goals;

Students should be able to trace the last two hundred (200) years of agricultural history for their tribe. Students will care for the garden at the Heard Museum, and care for at least one community garden.

Activities;

Work in one or more family or community gardens for elders to share knowledge and skills. Visit the Heard Museum, work in the garden, and tour the Boarding School Exhibit. Visit by nutritionist to understand nutritional qualities of various foods. Work with Social Studies teacher to have a written history of the tribe.

Seventh Grade Standard;

- Students should become aware of a variety of technologies in agricultural growing systems, and relate them to the desert where they live.
- Students will understand and apply basic business terminology.
- FFA Program is a junior high school elective for the year.

Goals;

Students should be able to understand why and how technology is involved in gardening and farming. Students should be able to understand the use of greenhouses, irrigation systems, and hydroponics. Students should participate in a class project to make soaps to sell, and use that activity to start to learn about business. Seventh graders become eligible to be part of the FFA junior program.

Activities;

Assist with greenhouse cleaning, preparation, and feeding. Assist with installation and maintaining irrigation systems. Make melt and pour soaps for sales. Add scents, colors, and labels. Write labels and flyers and articles. Attend farmers market or tribal entrepreneurial events to help with sales. Study business terminology.

Ideally visit Gila River Farms and talk about the business practices of the tribe. Visit the Maricopa Ag Center.

Eighth Grade Standard;

- Students should understand the basic concepts of agribusiness, and will participate in a class agricultural business project, incorporating multiple aspects of business knowledge and practice.
- FFA Program is a junior high elective for the year.

Goals;

Students should earn a substantial portion of their class trip expenses from garden business activities. Students should understand the basic aspects of owning a business.

Activities;

Harvest and prepare veggies for sale to the resort/KAI. Tour the resort with Chef Sandy as a class. Attend various farmers' markets/ fairs to sell produce and plants. Bag tepary beans and coordinate sales at school and for elders. Study business terminology. Write a paper based on what their personal choice of a business would be. Have tribal members who are entrepreneurs come in and talk to the class.

Umbrella Standard for Students

By the time students are promoted from the eighth grade, they should have a comprehensive historical knowledge of the agricultural and cultural aspects of how plants and people interact in the desert. Paramount within this knowledge are the historical and current tribal agricultural practices.

DREAM PROJECT FOR CULMINATING ACTIVITY:

For a culminating grand project for 8th graders, I would love to have the students have a gourd business. They would have to start the gourds while in 7th grade. Planting would start in the spring, and students could be involved over the summer assisting with watering and weeding. Then in the fall they would start marketing them before the harvest. There would be a local sales team, focusing on tribal artists who need gourds to create their art or rattles. Then there would be an Internet based business, selling across the country or around the world. Mr. Sharma tells me that our school web site would be capable of hosting this sales site. We could also include a lesson in sharing and giving back to the community, and set aside a percentage of the product or the profits to use for community improvements. Gourds for elders would be a natural way to give back, and the students could choose a community improvement project that they could fund and even implement.

The academic applications for this project would be delightful and varied. There would be a huge amount of writing for the web site, and for flyers for local distribution. Students would be able to write for so much free advertising they would be amazed. The free media we would earn would give students experience being in the paper and hopefully on TV. The math could get very complicated. Creating the budget would be a great exercise in math, and tracking the sales is natural and exciting math with a real world application. This project has the potential to inspire and motivate children to aspire to a future as a business person with applicable skills and sophisticated knowledge.

At this point this is still an unrealized dream. I have never had the time to arrange for all the details to make this successful, but I think if it were run properly we could aim to make \$10,000 in sales by growing 2,000 gourds. Maybe our 8th graders would be able to go to Washington D.C. and tour the Smithsonian instead of just getting to go to southern California theme park. And, just maybe, several students would be inspired from this example to create their own business when they grow older, or right now.