

Unit Topic Selection
Seed to Plate – Plate to Seed

The gardening and seed to plate unit topic was selected for multiple reasons. A primary reason is that it is not only an interest and a focus for many of the children but also a curiosity and an interest for both of the teachers in this class. Both classroom teachers want to place a focus on gardening and growing edible plants with children and also enjoy cooking with children. A seed to plate curriculum focuses on the values of sustainability, using resources, and nurturing nature. When children get their hands in the earth on a regular basis a love for the planet and natural resources begins. This is a value that both classroom teachers feel is important in the early years. Several of the children in our classroom come from families that focus on growing food and gardening. Several parents are involved in garden landscaping and agriculture as a career or in their field of study so there is an open window for family involvement in this curriculum. Children in these families experience gardening, edible landscape, and aquaponics at home. One child in particular has developed a morning routine, which includes traveling to known areas of the outdoor environment looking for things that grow that she can eat such as basil, oregano, and sprigs of rosemary.

Since introducing this unit to children through growing Mung bean sprouts, cooking with and planting sprouts (ultimately to harvest more beans), we have seen that this process has inspired many children to actively care for classroom plants. As children grow and harvest and eat and grow again, eating and food take on a whole new meaning for children. Food is not simply what we buy at the store. By growing food to eat and share, a foundation of appreciation and care for the earth is gifted to the children. Growing food to eat also supports a feeling of pride for our classroom ohana being that we didn't just cook this food, WE GREW IT!!! While cooking miso soup with the Mung beans that were sprouted in the classroom, one teacher asked, "where did the sprouts come from?" to which a child responded, "We grew them!"

Resources for this unit are abundant since we have a beautiful outdoor garden space to work with as well as an intentional school-wide focus on sustainability and healthy living. The garden has potential to be at the heart of our school and all things nature/outdoor receive a huge amount of support.

Aside from deepening children's appreciation for nature, the earth, and living things the various activities done with children will incorporate the Hawaii State Preschool content standards in the science domain. Activities will be designed with the intention of increasing sensory awareness, engagement in scientific inquiry, explore physical properties of the world, explore characteristics of living things, learn about the earth and perhaps the sky too, and using multiple forms of technology. As often as possible the activities designed in this science unit will incorporate CREDE learning objectives of contextualized learning for meaningful concept development, language and literacy, critical thinking and inquiry, group collaboration on a joint product, instructional conversation, peer-based modeling, and have elements of being child directed.

Subtopics, Activities, and Learning Objectives

What do plants need to sprout and grow? Do all plants need the same thing?

- ❖ Planting fruits and vegetables/sprouts/roots/herbs/flowers
- ❖ Books/Songs/Movement guided reenactment about gardening and plants growing
- ❖ Sequencing cards for steps to planting/transplanting
- ❖ Soil, pots, spoons, shovels, seeds, and fake flowers in sensory table
- ❖ Plant picture matching

Observable changes from seed to plant? What causes the changes?

- ❖ Caring for the plants as they grow (weeding, watering)
- ❖ Transplanting keiki plants
- ❖ Documenting and sketching changes
- ❖ Measuring plant growth
- ❖ Sequencing cards of plant cycle

Parts of plants (seeds, roots, stems, leaves, flower, fruit)

- ❖ Plant part Flannel pieces
- ❖ Leaf printing
- ❖ Yarn and paint root making
- ❖ Collage with stems (sticks) and leaves gathered from environment
- ❖ Puzzles (floor puzzles)
- ❖ Bean/seed sorting (egg containers and larger containers for grouping and classifying) and counting (ice cube trays with small hole for one-one correspondence)
- ❖ Flannel board pieces

Harvesting

- ❖ Sequencing cards with steps to transplanting
- ❖ Transplanting keiki plants to bigger pots

Cooking/eating

- ❖ Eating veggies raw as they grow (making salad)
- ❖ Cooking vegetable soup with veggies grown
- ❖ Eating raw bean sprouts
- ❖ Cooking with bean sprouts (Miso soup, Pad Thai noodles, Mung bean pancakes)
- ❖ Tasting and smelling fresh herbs (charting likes and dislikes)
- ❖ Freezing herbs in ice cube trays for water table or melting activities (sensory)
- ❖ Cooking with herbs we have grown (Hummus, spaghetti sauce, soups, pizza)

Planting/replanting from new seeds

- ❖ Harvesting seeds from plants grown (tomatoes, cucumbers)
- ❖ Sprouting Mung beans for eating and planting sprouts
- ❖ Planting