

## MOHALA SCIENCE UNIT OVERVIEW

### **Unit Topic: Science of Cooking**

Targeted Age Group: Kindergarten

Inspiration for this topic is the children's interest in cooking this year. This interest came from the two cooking projects we did with our Integrated Montessori Cosmic unit on the 'Ulu (Breadfruit). We also did more cooking projects with our *Kalo* (taro) and *Mai'a* (banana) units.

Justification for unit topic selection:

Our school's mission is to provide children, their families and teachers with appropriate Montessori educational experiences emphasizing Hawaiian Cultural values and language.

Place-based unit topic:

Cooking with Hawaiian Plants on campus.

Learning Objectives:

We will learn various science topics and vocabulary through cooking a variety of dishes.

**Subtopic 1:** Cooking healthy food from the Hawaiian Culture using the traditional Hawaiian Diet as a model. Will also use Dr. Shitani's Hawaiian diet.

How indigenous cultures use plants for food, shelter and daily living.

Place-based connection for Subtopic 1:

Its child centered. It came from the children who love cooking in the classroom with their friends. Cooking food from the Hawaiian Culture fits a part of our school mission statement of providing children and families with experiences in Hawaiian Language and Hawaiian Culture.

Learning objectives for Subtopic 1<sup>1</sup>:

- Continue to work on fine motor skills while using various cooking tools such as knives, graters, peelers to strengthen the muscles in the hand and strengthen eye hand coordination.

**Subtopic 2:** Sharing of Family Recipes. Each Child will bring in a family recipe to share with the class. We will cook each dish and make a family classroom recipe book.

Justification for inclusion of Topic 2:

To Learn about food history: collect **family** recipes from the children in our class and talk to them about Grandma's experience during historical events such as

the Great Depression or research the history of dishes online before making them. Taken from [http://www.education.com/magazine/article/What\\_Kindergarteners\\_Learn\\_from/](http://www.education.com/magazine/article/What_Kindergarteners_Learn_from/)

Place-based connection for Subtopic 2:

To build community in our classroom around sharing food and family stories. Families will be invited to come and help us to prepare food and share their stories. Providing an opportunity for each family to share food like families and ethnic groups did during Hawai'i's early sugar plantation heritage.

Learning objectives for Subtopic 2<sup>1</sup>:

Include science content, skills, practices and processes: TBA when families bring in their recipes.

**Subtopic 3:** To learn the scientific changes in food.

Justification for inclusion of Topic 3:

Water has the ability to freeze and boil. Jell-O starts as a liquid and hardens. Pie and cake starts as batter and ends up baked. Mixing ingredients and observing how they change as a way of teaching basic science principles. What causes the medium to change when it cooks?

Place-based connection for Subtopic 3:

- Academic: learning new vocabulary such as butter, milk, and flour. Math: counting (one teaspoon, three tablespoons, stir twenty times) Math concepts such as half and whole. Double or half the recipe to teach addition, subtraction, and division. Relate these concepts to the Montessori Math and Science Curriculum. Learn about making healthy food choices by using the food pyramid as a guide for healthy eating,

Learning objectives for Subtopic 3<sup>1</sup>:

Include science content, skills, practices and processes.

- Academic: learning new vocabulary. Math: counting (one teaspoon, three tablespoons, stir twenty times) and math concepts such as half and whole. Double or half the recipe to teach addition, subtraction, and division.