

Unit Topic Selection

1. Brainstorm:

The 'ulu unit is placed based because we have three 'ulu trees growing on campus.

This unit is based on both the kumu (teacher) and the keiki (children). From the children it came from the children asking questions and talking about plants and trees during our summer community walks. Available resources are the kumu's background in Hawaiian ethno botany, books, and parents in our class, community, and [REDACTED].

2. Identify the unit topic:

Inspiration song for the 'ulu unit and additional plant studies: Kalo, Mai'a, 'uala, and Ko is *Ono Stuff* by Leon and Malia.

3. Justifications for this topic choice:

The 'ulu unit and future Hawaiian Plant Units fall under our Montessori Cosmic Integrated Curriculum.

Subtopic Selection and Learning Objectives Identification

4. Ethno botanical uses of the 'ulu is a subtopic for this unit.

5. Identify subtopics: additional songs and other plants at school.

6. Develop Justification for inclusion of each subtopic: Hawaiian based curriculum fits with our school mission statement and it goes back to our Montessori Integrated Curriculum which revolves around helping children to understand who they are in the world and discover what their cosmic task will be in life!

7.) Available resources are the kumu's background in Hawaiian ethno botany, books, and parents in our class, community, and [REDACTED] I can also contact [REDACTED] my Botany Professor @ Kapi'olani Community College for additional resources as needed.

8.) Learning Objectives taken from Integrated Curriculum:

*This excerpt of learning objectives for the 'Ulu Tree is taken from an Integrated Curriculum Unit which was implemented at L.Robert Allen Montessori Center in April 2003 as a part of my student teaching.

III. Scientific Perspective

a. Objectives/Goals

- i. Go back to the story of creation and time period when flowering trees were created in Genesis.
- ii. Introduce the Scientific Name and parts of the plant.
- iii. Introduce the height of the tree for a math activity.
- iv. How the plant is propagated.
- v. Introduce the word ethno botany to the children and how it pertains to how humans use the plants around them in the environment for daily living.
- v. To teach the ethno botanical uses for the 'ulu: medicinal food/nutrition, as wood for canoes, surfboards, pahu drum, poi boards, games, tapa dyes, and sap to catch birds for hulu (feathers) to make kahili, capes, etc., and for gum and glue.

9.) Assessment by asking the children questions and doing the concept map at the beginning, middle, and end of each unit.

Activity Selection and Justification

10.)

11.)

12.)

See lesson plan examples on the next page

Labeling Parts of a 'Ulu Leaf

Materials:

- 1.) Blank Xeroxed 'ulu leaf.
- 2.) Control chart of an 'ulu leaf.
- 3.) Pencil
- 4.) Choice of Green colored pencil, crayon, or green marker.
- 5.) Table mat

Presentation:

- 1.) Invite the child.
- 2.) Show them how to label their worksheet by using the control sheet.

Direct Aim: Preparation for reading and writing.

Indirect Aim: Visual Discrimination and fine motor development

Ages: 4-6

Vocabulary: label, write, and color

CREDE Standards:

CDA (Child has a choice to choose this activity during the work period)

LLD: Direct Aim #2 and Language built into the activity.

IC: giving the initial lesson to the child.

MD: Teacher giving initial demonstration. Another child giving the lesson to a younger child.

Plantsongs- From the Ground Up

Songs by Bruce Marbin

Songbook available through Nienhuis as a Montessori and Related Publication.

Two songs used as activities for the Scientific Perspective.

Procedure:

1. Teacher sang song first and strummed the ukulele.
2. Children sang after the teacher in a call and response style.
3. *The Tree* song was introduced after the parts of the '*ulu* nomenclature cards were presented.

This song is in 4/4 time and has a calypso beat.

Lyrics: When I look outside, I see a tree, I know it is the plant for me. There's the root, (response: there's the root) and the trunk is the stem. There are branches (response, there are branches, with the leaves on the end, it can't come inside to play with me, so I go out and climb the tree.

Leaves

This song was presented in the same style after the children looked at an '*ulu* leaf and did a leaf rubbing. The children also did a parts of the '*ulu* leaf labeling job with a control map.

This song is in $\frac{3}{4}$.

On the trees and on the ground and floating through the air, the stipules, the petiole, the veins and the blade. Leaves fall without a sound.

Direct Aim: To enhance vocabulary development for the parts of a leaf.

Indirect Aim: Sequencing of leaf parts.

Points Of Interest:

1. The song. Children learn and remember when their positive emotions of the brain are engaged and stimulated. Young children are visual auditory, and kinesthetic learners.

CREDE Standards:

JPA: Singing as an ensemble.

IC: Repeating the song lyrics after the teacher when the song is being introduced.

LLD: Emergent Literacy and vocabulary development.

MD: Teacher giving initial demonstration.