

'Ewa 'Āina Education Initiative

Unit Plan: Aloha Kuhialoko - Link to full unit plan available via the following URL: <https://cutt.ly/xKU0ST1>

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'Āina site: Kuhialoko

Target Grades: 9-12

Target Subjects: Hawaiian Studies, 'Ōlelo Hawai'i

Detailed Lesson-Project Plan #2

Lesson Title: Native and Invasive Species Count - Mea Kanu (plants)

Essential Unit Questions Addressed:

What invasive species do you see? How may they have arrived in your assigned area to count? Do they have a useful purpose? Do they hinder the growth of native species?

Educational Standards (Hawaiian Language)

Standard 1: INTERPERSONAL_ Use target language to engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions

Standard 3: PRESENTATIONAL_ Present information, concepts, and ideas to an audience of listeners or readers on a variety of topics

Explain how the [HĀ framework](#) and/or Hawaiian Culture:

By counting the invasive species, investigating, observing and concluding both their negative and positive effects and potential uses; sharing out, and participating in discussions, the students will exhibit the following aspects of the HĀ framework.

1. Strengthened Sense of Belonging:

- a. Know who I am and where I am from
- b. Know about the place I live and go to school
- c. Build relationships with many diverse people
- d. Care about my relationships with others
- e. Am open to new ideas and different ways of doing things
- f. Communicate with clarity and confidence
- g. Understand how actions affect others
- h. Actively participate in school and communities

6. Strengthened Sense of Hawai'i:

- a. Pronounce and understand Hawaiian everyday conversational words
- b. Use Hawaiian words appropriate to their task
- c. Learn the names, stories, special characteristics and the importance of places in Hawai'i
- d. Learn and apply Hawaiian traditional world view and knowledge in contemporary settings
- e. Share the histories, stories, cultures and languages of Hawai'i
- f. Compare and contrast different points of views, cultures and their contributions
- g. Treat Hawai'i with pride and respect
- h. Call Hawai'i home

Materials needed:

1. Notepad/Paper and pencil for taking notes and documenting counts
2. Leis or other gifts made in class (makana) to be presented to Kuhialoko staff

Pedagogy: This is one of 2 lessons designed to be done on site at Kuhialoko. Students will be split into 3 main groups to count different invasive species. This group will be counting invasive plants in the assigned area by staff. Students will be utilizing their Hawaiian Language counting skills, and their plant identification skills learned previously in the unit. They may refer to their sketches and notes taken in class.

1. Identify as many invasive plant species in their area.
2. Do a count of each species in their area. Numerical counts should be written in Hawaiian.
3. Observe, investigate, and conclude why the number of species there are present. Example, were those plants planted there for a purpose? Is there a mother plant upwind dropping seeds, could birds have spread those seeds there? Are those plants beneficial or harmful? How so? Should they be removed?
4. Whole group share-out and discussion, numbers are to be shared in Hawaiian.
5. Work time: Kuhialoko staff will assign work tasks which will be based on the needs of that particular day, and may include but will not be limited to: weeding, raking, cleaning 'auwai/hollowai systems, constructing/fixing things etc.
6. Lunch
7. Final debrief, Final cleaning, Mahalo, return to campus

Lesson Introduction

Previously planned protocols with Kuhialoko staff to occur upon arrival. Leis made in class to be given to staff/honorary guests.

Remind the students to leave their cell phones in their bags, ABSOLUTELY NO USE OF CELL PHONES on site. No pictures.

Staff introductions. Quick Mo'olelo by staff leader.

Instructional Sequence

Teacher Does	Students Do
Split students into previously planned groups optimizing individual compatibilities/strengths	Arrange themselves into the assigned groups
Remind students of the task at hand (mentioned above under pedagogy)	Review with each other their tasks and responsibilities
Send groups to their designated locations.	Head to their assigned areas and begin
Be sure to check in on each making sure they are on task, and providing guidance and assistance where necessary.	Remain on task, asking for help or clarification when needed
Check in with them in 15 mins, assess how much more time is needed.	Report on their progress
When everyone is ready, call them back to the main group for analysis.	Return to the main group and prepare for share out

Closing: Analysis/Share- out groups will take turns presenting:

1. They will present their Species and counts in Hawaiian
2. (Depending on the Hawaiian language level this may be done in English) Share their observations, investigations, and conclusions why the number of species there are present and their synthesis of information. Time of day? Season? Purpose? Is there a mother plant upwind dropping seeds, could birds have spread those seeds there? Are those plants beneficial or harmful? How so? Should they be removed?

Accommodations for at least 3 types of diverse learners:

- May allow students to present in a smaller setting at a different time
- May allow for students to submit their presentation in writing
- May allow for students to submit their presentations utilizing diagrams, poetry, music, dance, or any other type of performing arts

Virtual Accommodations

- If students are unable to attend, provide the approved pictures from Kuhialoko so students may do their counts virtually
- Allow them to create their own tables on Google slides to document their counts, and write their analysis
- Partner them with others who were unable to attend physically so they may present their numerical counts in Hawaiian, and discuss their predictions why their counts differed from others.

Associated media to introduce or guide students if referenced.

- Invasive Plants in Hawai'i Guide <http://www.hear.org/hortweeds/>
- Native Species Cards from Hui o Ho`ohonua (sample) but cards will be modified by students to include more species after the first visit to Kuhialoko - available via the following URL: <https://cutt.ly/aKU0Wp0>

Formative Assessment Method/s For This Lesson

- Their numerical counts in Hawaiian will be graded for accuracy including spelling

Explain How This Lesson Relates To the Unit Summative Assessment

- This is the culminating, real-world application for learning counting in Hawaiian throughout the whole unit.
- This visit provides content for the final student selected projects for sharing what they learned with community and younger students