



STEMS² Unit Plan Template

BACKGROUND:

Lesson Background:

This section is for teacher use. Please answer these questions in the text.

- Why is the unit designed this way?
- How did you select your community partners?
- Is there relevant or special content knowledge or background information that you think is required to implement the unit. For example, background info on lo`i.

This unit was designed to teach students about how Hawaiians managed/took care of the land and to teach them to take on this role in the present. It was designed to share the Hawaiian practices that helped them to take care of the land and apply these understandings in a modern world. The focus of this unit is to show them the importance of Mālama ‘Āina and build on students’ sense of place. MCBH is located on the Mōkapu Peninsula is rich in natural resources. Some include Nu‘upia Ponds (Helekou, Kaluapuki, Mulimaiolena), Kū‘au Beach (Pyramid Rock Beach), and Heleloa Beach, Kehekili’s Leap, and even native salt works (“pans”, where Hawaiians got salt in the area) (Steele, A., & McNease, C. A. P., 1965). During this unit students will learn about the Mōkapu Peninsula in depth which is important for our unique student population (made of majority transient due to their military backgrounds). This is designed to give students more opportunities to build on their sense of place at Mōkapu and apply this at various other locations.

Community partners are significant because they help us to advance our students’ learning and give them access to different perspectives/information. The community partners give students meaningful opportunities to do some hands-on learning and make this unit more meaningful to them. Current community partners include Ulu Adrienne Vincent (our Computer/Technology Teacher) and Hilliary Piliialoha (our School Transition Coordinator) and Karen Byran (MCBH’s Environmental Specialist. Hopefully, in the future community partners will include Waikalua Loko I‘a, the Cultural Resources Management program on MCBH, and the Cultural Resources Management program.

Background knowledge needed to implement this unit is information on the history of Mōkapu Peninsula and the ahupu‘a compromised in the peninsula- Kailua, Kāne‘ohe, and He‘eia. Students will need about the land divisions and the roles of Hawaiians to be sustainable in the past. Students were introduced with this if they were here last year in 4th grade but, they will need a review and refresher.

Unit Overview:

500-character (max) abstract providing a summary of your unit

- What is the overall purpose and real-world problem/challenge of the unit?
- What is the basic design of the unit?



- What is the basic content addressed in the unit?

This unit was designed to explore Hawaiian's land complex division systems that increased productivity and protected natural resources. Students will learn why Hawaiian practices were sustainable and how these concepts can be applied now. They will delve into Mālama 'Āina and its importance. We also will be going over the rich natural resources found throughout the Mōkapu peninsula to impact students' sense of place. Teaching them to apply this knowledge as they move and instill them a sense of responsibility for all places.

The unit will start with a review/introduction Hawaiian land systems and Hawaiian's roles as stewards of the 'Āina. Then they will analyze human impact on ecosystems and how people can preserve natural resources. Then they will explore the concepts of Mālama 'Āina. They will take a learning journey to Nu'upia and North Beach to see their place with MCBH's Environmental Specialist, Karen Byran. Karen will share what MCBH has been doing to protect this special place. Then kids will have to research land issues around the world and choose an issue that they care about. In groups they will write proposals to show how they can apply Mālama 'Āina themselves and persuade others to do the same. Then finally, they will peer review others' projects and then appropriate audiences (admin, Ulu, Hilliary, their 1st grade buddies, parents, etc.) will come to watch the groups to share what they've learned. They will be given options to choose on their projects and who will be in the audience.

Basic content that will be addressed in this unit: History about Mōkapu Peninsula, Hawaiian land division systems and practices, human impacts on ecosystems, sustainability, Mālama 'Āina, sense of place, how to write a persuasive proposal, and how to peer evaluate appropriately.

STAGE 1:

Reflections before completing Stage I: (note: you do write answers to these questions here)

- What is important for students to understand and be able to do?

Students need to understand what Mālama 'Āina are and will need to be able to explain that to others and its importance/value. They will need to find the connections between the past and present Mālama 'Āina practices. It is important that they are able to explore and enhance their sense of place.

- What do students already know and are already able to do?

Students already know about various ecosystems and the importance of balance in an ecosystem. They also know about sustainability and ways to be more sustainable. They also may know information about Hawaiian practices/history (if they were here last year).

- What are students curious about?



Students are curious about the different areas of Mōkapu. We had a beach clean-up at Pyramid Rock and majority of the students said they barely go to this beach. They also are curious about Hawaiian practices and hands-on learning experiences. Last year, 4th grade went on a trip to Kaua‘i and the students still talk about and write about the experience.

Unit Plan Title: Mālama Mōkapu, Mālama ‘Āina

Essential Question:

- Open-ended (*how* or *why* Qs best)
 - Pushes students to inquire about something real and relevant
 - Gratifying (to them and / or the community)
 - Inspires activity or movement, and evokes emotion or controversy
- How are we connected to the environment?

we take care of the land and the land takes care of us (Hāloa)

Enduring Understanding(s):

- Write 2 - 5 main ideas that students will remember for the long term.
- Introduce these early and touch on them often.
- Form the foundation of the authentic culminating assessment

Students will:

- Understand the importance of Mālama ‘Āina (the why?)
- Be able to apply Mālama ‘Āina in their lives (the how?)

Standard Benchmarks and Values

- Select standard benchmarks (HCPS III, CCSS, NGSS)
- Identify values to reinforce (culture-based, such as NHMO or other).
- Notate if students will be *introduced to*, will *practice*, or will *demonstrate mastery* of the standard during this unit.
- All assessed standards should be demonstrated mastery
- STEMS² Units are interdisciplinary and should address a minimum of standards across three content areas. Please list all standards addressed (i.e. *introduced to* and *will practice*) and assessed (*demonstrate mastery*) in the table below.

Science	Technology	Engineering	Mathematics	Social Science
<u>Standards that will be introduced in this unit:</u> (I)				
Global Collaborator				



Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

5.NF.6

Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

5.G.2

Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation.

Standards that will be practiced in this unit: (P)

5.RI.10

By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.

5.SL.5

Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

LS2-1

Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

5-ESS2-1

Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

Knowledge Constructor

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

3-5-ETS1-1

Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2

Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

SS.5.1.1

Use chronological order to explain causal relationships between and among people and events

Standard 6: Cultural Anthropology: SYSTEMS, DYNAMICS, AND INQUIRY-Understand culture as a system of beliefs, knowledge, and practices shared by a group and understand how cultural systems change over time

Standards that will be mastered in this unit (Standards Assessed): (M)

5.SL.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

- a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- b. Follow agreed-upon rules for discussions and carry out assigned roles.
- c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
- d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

5.SL.5

Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

5-ESS3-1

Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

SS.5.5

Political Science/Civics: PARTICIPATION AND CITIZENSHIP-Understand roles, rights (personal, economic, political), and responsibilities of American citizens and exercise them in civic action

1. Strengthened Sense of Belonging: (M)

- a. *Know who I am and where I am from*
- b. *Know about the place I live and go to school*
- c. *Am open to new ideas and different ways of doing things*
- h. *Actively participate in school and communities*

2. Strengthened Sense of Responsibility (P)

- d. *Question ideas and listens generously*
- e. *Ask for help and feedback when appropriate*
- f. *Reflect on the quality and relevancy of the learning*
- g. *Honor and make family, school and communities proud*

6. Strengthened Sense of Hawai'i: (P)

- 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*

Critical Skills and Concepts:

- List what you want students to know and be able to do by the end of the unit.
- Link these skills and concepts to what students need to fully grasp the Enduring Understandings and answer the EQ.
- Delineate broad skills and concepts to be specific about what students are "getting good at."

Students will:

- Understand the importance of balance in an ecosystem/community
- Be able to explain the importance of Mālama 'Āina
- Be able to apply Mālama 'Āina in their lives
- Increase their understanding and appreciation of Mōkapu and Hawaiian practices/history

In small groups (3-4) students will use their knowledge to design a proposal for a Mālama 'Āina project for the school or nearby community. Students will identify an issue at school or in the community and propose a plan to solve it (e.g. students might want to reduce wasted food, increase recyclables, decrease invasive species and increase native species). They will need to create the proposal and a plan to convince others that this is an important issue that should be looked into. Students will present their proposal to appropriate audiences. For example, the kids who want to reduce waste/increase recyclables may present to administration, the cafeteria staff, janitors OR the kids who want to decrease invasive species and increase native species can present to the garden club and MCBH environmental. Then students will see if they can convince others to support them.



STAGE 2:

Reflections before completing Stage II: (note: you do write answers to this question here)

- What have students learned and how have they grown?

Authentic Performance Tasks:

- Describe how a student will *show you* that they deeply understand and can use / apply the Enduring Understandings.
- Develop a real-world task students can accomplish or problem they can solve to answer the EQ.
- Select some of the standards and values to assess.

In small groups (3-4) students will use their knowledge to design a proposal for a Mālama ‘Āina project for the school or nearby community. Students will identify an issue at school or in the community and propose a plan to solve it (e.g. students might want to reduce wasted food, increase recyclables, decrease invasive species and increase native species). They will need to create the proposal and a plan to convince others that this is an important issue that should be looked into. Students will present their proposal to appropriate audiences. For example, the kids who want to reduce waste/increase recyclables may present to administration, the cafeteria staff, janitors OR the kids who want to decrease invasive species and increase native species can present to the garden club and MCBH environmental. Then students will see if they can convince others to support them.

Authentic Audience:

- Decide on an authentic and relevant audience for this task.
- Who can students show their understanding to in order to make an impact beyond the walls of their classroom?

The students will be given the opportunity to present their proposals to appropriate audiences (will vary based on their proposals). The authentic audience may be administration, other staff, other students, community partners, etc.

Other Evidence:

- List other evidence and assessments beyond those in the Performance Task that can be used to measure student growth and mastery of benchmarks.

They will be rated during their presentations, audience members will be asked to take note of glows and grows of their proposals, they will be given the opportunity to rate themselves and their group members. Students will also write a reflection about how the experience impacted them. They will be asked to explain how it changed/or didn't change their perspective of their responsibilities as a global citizen and of Mōkapu as a layered place. They will be asked if it inspired them to participate in school/or the community? Also, they will be asked why is it important to protect Earth's resources and the environment? They also will be measured by observations throughout the unit and we will reach out to families to see if students are sharing their learned knowledge to others.



STAGE 3:

Reflections before completing Stage III: (note: you do write answers to this question here)

- How do students best learn?

My students learn well when learning is hands-on and engaging. They are more engaged when they are given really explicit instructions and are able to work with the support with peers.

They also learn best when they are given opportunities to connect the content with their prior experiences and they enjoy it when they are given choices. Also, it helps if they are given multiple opportunities to practice skills/concepts before the summative assessment.

Learning Plan:

- Identify knowledge and skills students will need to accomplish the Authentic Performance Task.

Knowledge/Skills they will need to accomplish the Authentic Performance:

- To be able to write a persuasive piece
 - Online/Print Research Skills to learn more about their land issue/natural resource issues
 - Reading Comprehension skills at various levels to gather information for their presentation
 - Revising and editing skills complete their proposals
 - Presentation skills
 - Collaborative learning skills
-
- Address how lessons will spiral and scaffold to build up to the culminating assessment.
 - Notate how you will link to Enduring Understandings and make connections between discrete knowledge and larger themes often.
 - Give students a chance to practice all skills needed to accomplish the final assessments several times.
 - Offer students a chance to:
 - Think about new knowledge/skills
 - Do /create / make using the knowledge/skills
 - Reflect and receive *feedback* on knowledge/skills
 - Re-do (several times, if needed) constantly pushing for excellence

The Unit Plan's Lesson Plans:

<https://docs.google.com/document/d/1qH-lh0HZvPdA8Gg46oxpo40EfmZFHwkgVVhW27z3QbY/edit?usp=sharing>

Unit Plan Presentation (Slides) here:

<https://docs.google.com/presentation/d/1kDHFbCqIs5MxIE72qfQQkEO5Othj9hELHtQ69Df1SW4/edit?usp=sharing>

Unit Plan Worksheets here:

<https://docs.google.com/document/d/1tNcZ6XCHzARps-N-Z7nEvo4I2h05ZnjxPsS-h5uqmpk/edit?usp=sharing>



Works Cited

- Steele, A., & McNease, C. A. P. (1965). Myths, martyrs and Marines of Mokapu : a history of the Marine Corps Air Station, Kaneohe Bay, Hawaii. Retrieved October 13, 2019, from [https://upload.wikimedia.org/wikipedia/commons/c/c4/Myths, martyrs and Marines of Mokapu.pdf](https://upload.wikimedia.org/wikipedia/commons/c/c4/Myths,_martyrs_and_Marines_of_Mokapu.pdf).

Unit Plan

Template from the Exceptional Students & Elementary Education: ESEE Program
University of Hawai'i at Mānoa

I. OVERVIEW

Name: Jenna Hirayama	Date:
Grade Level: 5th	Classroom Type: <input type="checkbox"/> SPED <input type="checkbox"/> GEN X INC <input type="checkbox"/> FSC
# Students: 20	Lesson Duration: 45 min to 1.5 hours
Lesson Title: Mālama Mōkapu, Mālama 'Āina	

II. OUTCOMES

Standards & Benchmarks	Learning Objective(s)
<p><u>Standards that will be introduced in this unit:</u> (I)</p> <p>Global Collaborator Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.</p> <p><u>5.NF.6</u> Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p><u>5.G.2</u> Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation.</p> <p><u>Standards that will be practiced in this</u></p>	<ul style="list-style-type: none"> Understand the importance of Mālama 'Āina (the why?) Be able to apply Mālama 'Āina in their lives (the how?) <div style="background-color: black; color: white; text-align: center; padding: 5px;">Essential Question:</div> <p>How are we connected to the environment?</p>

unit: (P)

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known about the topic to explore ideas under discussion.

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SS.5.5

Political Science/Civics:
 PARTICIPATION AND
 CITIZENSHIP-Understand roles, rights (personal, economic, political), and responsibilities of American citizens and exercise them in civic action

III. ASSESSMENT

Assessment

Description of assessment:

In small groups (3-4) students will use their knowledge to design a proposal for a Mālama ‘Āina project for the school or nearby community. Students will identify an issue at school or in the community and propose a plan to solve it (e.g. students might want to reduce wasted food, increase recyclables, decrease

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What is being assessed:

If they can all apply Mālama ‘Āina and explain its importance to others.

Assessment accommodations:

They will be given UDL options to present and they will be put into heterogeneous groups. They can take a role that they feel comfortable in.

IV. INSTRUCTIONAL METHODS

Preparation
Print the needed worksheets (attached) and powerpoint (attached)

Co-Teaching	Strategy
Are you co-planning and co-teaching this lesson? X Yes <input type="checkbox"/> No If so, who is the lead? <input type="checkbox"/> Gen. Ed. X SPED	<input type="checkbox"/> One Teach, One Observe <input type="checkbox"/> One Teach, One Assist <input type="checkbox"/> Stations <input type="checkbox"/> Parallel Stations <input type="checkbox"/> <input type="checkbox"/> Differentiated/Alternative <input type="checkbox"/> Supplementary Station X Team Teaching

Date	Objective	Teacher Will...
Day 1	Identify Hawaiian's practices to manage land & natural resources	<ul style="list-style-type: none"> ● What is an ahupua‘a? (Slide 2) <ul style="list-style-type: none"> ○ What's an ahupua'a? ○ Have you heard of this term? ○ Teach them about it: The Hawaiian Land system based on the needed land divisions so that communities are able to be sustainable. It is from the mountains to the sea. Hawaiians use it them to protect natural resources

		<ul style="list-style-type: none"> ● What are resources in the ahupua'a? Let's make a list of natural resources from the mountains, valleys, and the shore. (Slide 3) <ul style="list-style-type: none"> ○ Have the kids list different resources in the Mountains, Valleys, and the shore ● Cost & Benefits of the Ahupua'a system (Slide 4) (Worksheet 1) <ul style="list-style-type: none"> ○ How does this method help the people? ○ How does it help Hawaiians to access the mountains, valleys, and shorelines? ○ Does it hurt to be limited to certain areas of the island? ○ What are some costs of this system? ○ By dividing the land, chiefs were able to provide for their community with the resources to live. It helped them to ensure that they wouldn't be depleted and areas weren't overcrowded. However, Hawaiians were expected to stay within their district and needed special permission to gather, farm, or fish in other ahupua'a. So there were both pros and costs (cons) of this system. ● If you were a chief in Hawai'i would you use this system? (Slide 5) <ul style="list-style-type: none"> ○ Up to you, would you use this land system? ● Design your own ahupua'a (Slide 6) (Worksheet 2)
<p>Day 2</p>	<p>Mōkapu Over Time & Human Impacts at Mōkapu</p>	<ul style="list-style-type: none"> ● Review the ahupua'a <ul style="list-style-type: none"> ○ What is the balance of an ahupua'a? (Slide 7) ○ Balance in an Ahupua'a (Slide 8) ● Teach them our place- Mōkapu is... (Slide 9) <ul style="list-style-type: none"> ○ Island: Oahu ○ Moku: Ko'olaupoko ○ Ahupua'a: Kailua, Kāne'ōhe, Haiku ○ Have the kids identify it on the map ● A little history of the ahupua'a of Kāne'ōhe (Slide 10) <ul style="list-style-type: none"> ○ Watch the video ● Timeline (Slide 11) <ul style="list-style-type: none"> ○ This is Mōkapu overtime ○ With your table mates, talk about what you see in these pictures ○ How has Mōkapu changed over time? ● School Tour (Slide 12) (worksheet 3) <ul style="list-style-type: none"> ○ Take the kid on a school tour ○ We will be looking at natural and man made features of our campus. I will be

		<ul style="list-style-type: none"> ○ Use your worksheet to see what you see at specific places at our school. ○ Remember, other classes are learning in their classrooms so voices should be off ● Discussion (Slide 13) <ul style="list-style-type: none"> ○ What did you see? ○ What were some man-made features? ○ What were some natural features? ○ How have we impacted/affected our environment?
Day 3	Human Impacts Around the World	<ul style="list-style-type: none"> ● Human Impacts on 'Āina (Slide 14) <ul style="list-style-type: none"> ○ How do we impact our environment? ○ Think-pair-share with your tablemates ● Interactive (Slide 15) <ul style="list-style-type: none"> ○ Open your chromebooks ○ I shared a link on our google classroom, when I say go, explore this interactive. As you click on things it will show how humans are impacting the environment around the world. ○ Discussion: What did you see? What did you like? What did you not like? <ul style="list-style-type: none"> ■ Try to create a balance ■ How were you able to find balance? or could you not find balance? ■ Would you want to live there? Please explain ● Jigsaw- How humans impact the environment? articles (Slide 16) <ul style="list-style-type: none"> ○ In your groups (write the groups in the board), you will be reading articles and will fill out the Read and Respond Nonfiction Graphic Organizer (worksheet 4) <ul style="list-style-type: none"> https://www.nationalgeographic.org/topics/resource-library-human-impacts-environment/?q=&page=1&per_page=25 ○ I shared the articles in our google classroom ○ You have 20 minutes and then you and your group will present your findings ○ Everyone needs to read the article and fill out the graphic organizer ● Presentation (slide 17) <ul style="list-style-type: none"> ○ Decide what part of the graphic organizer you will share

		<ul style="list-style-type: none"> ○ To share you need to share the main idea of the article, 3 supporting details, and share your opinion on this article ○ Everyone needs a role, make sure that everyone is ready to present ○ If you aren't not presenting than you should be taking notes in your science notebook ● Kahoot (Slide 18) <ul style="list-style-type: none"> ○ We will wrap up by playing Kahoot ○ You can use your notes and you can decide if you want to play by yourself or with a partner ○ I will show the code on the screen
Day 4	Introduce the Learning Journey	<p>Review Yesterday (Slide 19) “What did we learn yesterday? How have people been impacting the environment?”</p> <p>Introduce and Examine Mālama ‘Āina</p> <ul style="list-style-type: none"> ○ Hāloa Mo‘olelo (worksheet 4) (slide 20) https://www.pupuaoewa.org/art-2/i-haloo/ ○ What does the Hāloa story teach us about the Hawaiian’s perspective of how people are connected to the environment? ○ (Slide 21) Mālama ‘Āina means that you will take care of the land and the land will nurture you <p>Earth Day: (Slide 22)</p> <ul style="list-style-type: none"> ○ Have you all heard of something called Earth Day? What do you already know about Earth Day? What is Earth Day all about? ○ Earth Day is one specific day every year when countries all over the world focus on protecting the environment. ○ Have students read a magazine article about Earth Day. (worksheet 5) https://www.nationalgeographic.org/activity/introduction-earth-day/ ○ Think-Pair-Share: Discuss environmental problems. Ask students to name environmental problems that affect their daily lives. Write their responses on the board. Students should provide everyday examples, such as: too

		<p>much trash, wasting electricity, and wasting water.</p> <p>Ask: Is it possible to have a big impact on the environment by making small changes? If students say no or are unsure, provide a concrete example to illustrate, such as taking reusable bags to a store to create less waste.</p> <p>Compare and Contrast (Slide 23)</p> <ul style="list-style-type: none"> • Use the venn diagram to compare the two passages (worksheet 6) • What is different between the concept of Mālama ‘Āina and those who celebrate Earth day? • Did both readings have similar themes? <p>How can we mālama ‘āina?</p> <ul style="list-style-type: none"> • How can we celebrate Earth day, everyday? • Can we make a difference? How can we Mālama ‘Āina? • How can we preserve natural resources? • Is it possible to have a big impact on the environment by making small changes?
Day 5	Exploring Mōkapu through Mālama ‘Āina- Learning Journey	<ul style="list-style-type: none"> • Slide 24 • Today we will be using or will be practicing what we have been learning in the classroom. We will be exploring our place and learning how MCBH practices Mālama ‘Āina • Mālama ‘Āina experience <ul style="list-style-type: none"> ○ Value Mōkapu Peninsula & Hawaiian culture exploration ○ Nu‘upia Scavenger Hunt (worksheet 7) ○ Service Learning- Beach Clean up • Debrief the Learning Journey (worksheet 8) <ul style="list-style-type: none"> ○ Students can fill out the Exit Slip
Day 6	Introduce the Project	<p>Debrief the Learning Journey</p> <ul style="list-style-type: none"> • What were your biggest takeaways yesterday? <p>Exploration (Slide 25)</p> <ul style="list-style-type: none"> • Let students explore ways people are impacting the environment in both negative and positive ways • What are issues at Mōkapu? What are issues around the world? • Make sure kids are using only school appropriate websites <p>How can we mālama ‘āina? (Slide 26)</p> <ul style="list-style-type: none"> • How can we celebrate Earth day, everyday?

		<ul style="list-style-type: none"> • Can we make a difference? How can we Mālama ‘Āina? • How can we preserve natural resources? • Is it possible to have a big impact on the environment by making small changes? • Brainstorm ways that you can impact the environment in a positive way • Choose on a project with group members (heterogeneous) • Before you work with our group members choose 3 ideas from your brainstorm to share • Everyone needs to put in their ideas
Day 7	Identify an Issue and Start Group Work Research Day	<p>Proposals (Worksheet 9-11) (Slide 27, 28)</p> <ul style="list-style-type: none"> • In small groups you will be writing proposals a proposal is a type of persuasive writing where you are asked to propose an idea and provide evidence to convince the audience why it is a good or bad idea <p>Choosing the authentic audience (Slide 29)</p> <ul style="list-style-type: none"> • We decide what audience (parents, admin., buddies, etc.) as a class • We will vote so I can schedule it with stakeholders
Day 8	Research Day	<p style="text-align: center;">Research Day</p> <p>Extra day where groups can finish their proposals, add facts/evidence</p>
Day 9-10	Putting the Proposal into a Presentation	<ul style="list-style-type: none"> • Slide 31 • Students will plan their presentations • Everyone needs to have a clear role and speaking part • Student can make a powerpoint, make posters, etc. they need to persuade stakeholders that... <ul style="list-style-type: none"> a. Mālama ‘Āina is important b. How can you mālama ‘āina c. propose your plan
Day 11	Sharing of completed Projects	<ul style="list-style-type: none"> • Slide 32 • Share your presentation/PSA • Evaluate other groups' presentations • Rate videos by commenting on other's presentations- one glow (something good) and one grow (something to improve on)

Differentiation, Modification & Accommodation	
ELL/MLL	Sentence starts, graphic organizers, leveled readings

Struggling	Heterogeneous group to get peers' support, pre-reading of articles, sentence starters, modeling, Graphic organizers, UDL options to assess
Accelerated	They can take a leader role in the group work, articles are leveled
504/IEP	Heterogeneous group to get peers' support, pre-reading of articles, sentence starters, modeling, Graphic organizers, UDL options to assess
Others (describe)	n/a

Resources

- Ahupua‘a From the Mountains to the Sea:
<http://www.moonshotincubator.com/wp-content/uploads/2016/09/Google-Expeditions-Ahupua%E2%80%98a-Lesson-1.pdf>
- Hawaiian Economics Part 1:
<https://www.econedlink.org/resources/hawaiian-economics-from-the-mountains-to-the-sea/?view=teacher>
- Hawaiian Economics Part 2:
<https://www.econedlink.org/resources/hawaiian-economics-barter-for-fish-poi/?view=teacher>
- Site to Explore Human Impacts
https://www.nationalgeographic.org/topics/resource-library-human-impacts-environment/?q=&page=1&per_page=25
- Earth Day Article:
<https://www.nationalgeographic.org/activity/introduction-earth-day/>
- Haloa Mo‘olelo: http://www.kumukahi.org/units/ka_hikina/haloa

V. ADDITIONAL ATTACHMENTS

- Worksheets:
<https://docs.google.com/document/d/1B3z67gFM9ruEvYMTdkuhxBTWBTQz-7Yrk2Rekp9WLAq/edit?usp=sharing>
- Graphic Organizer:

<https://drive.google.com/file/d/13cdTis5xFSeribzLsB-E0cPXDZDL0Wtk/view?usp=sharing>

- Powerpoint:

<https://docs.google.com/presentation/d/1kDHFbCqIs5MxIE72qfQQkEO5Othj9hELHtQ69Df1SW4/edit?usp=sharing>

Name:

Date:

Day 1- Pros Vs Cons

Directions: With a partner, list both pros (benefits) and cons (costs) of the Ahupua'a system

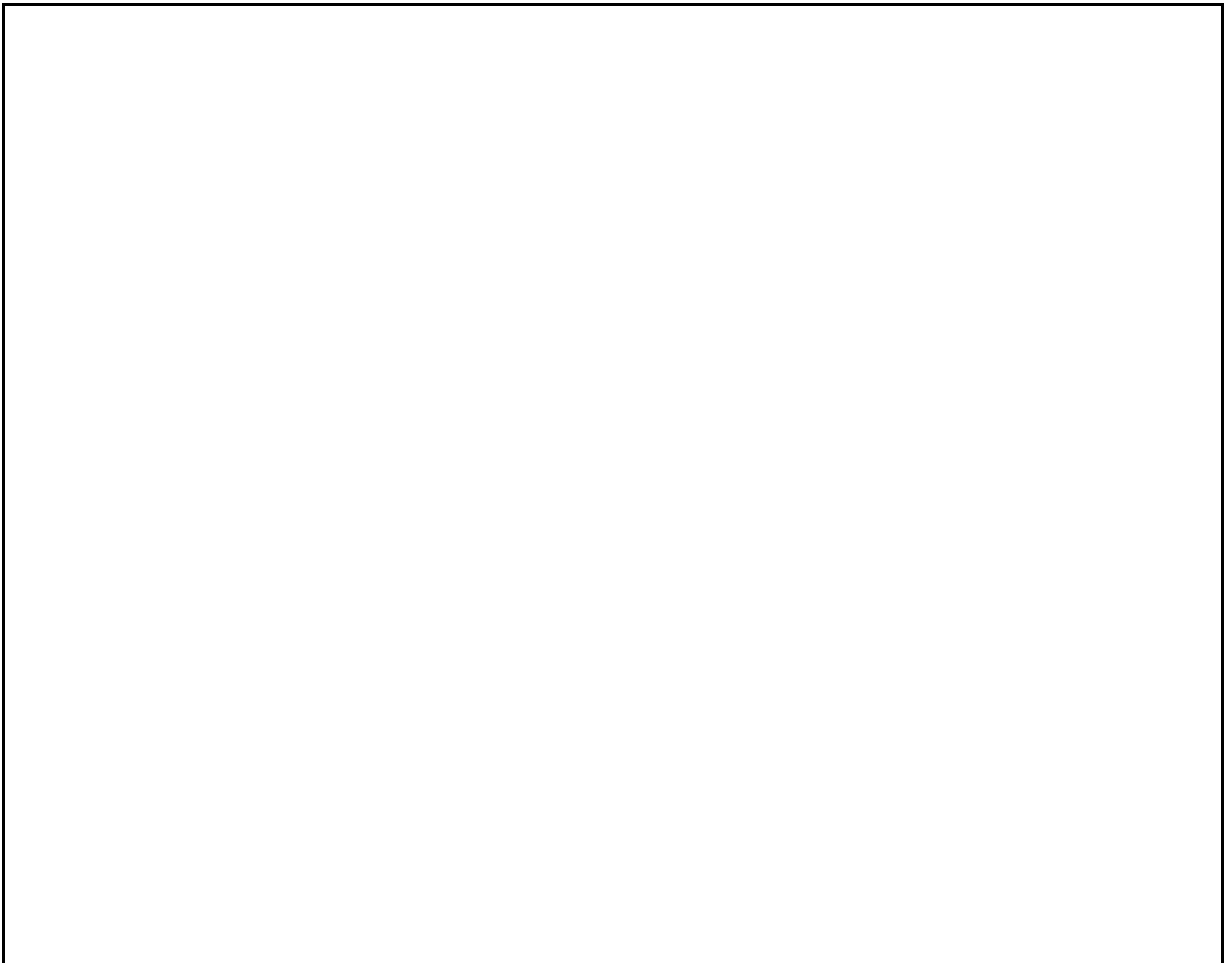
Pros	Cons

Name:

Date:

Would you use the Ahupua'a system if you were in charge? Why/why not?

Design your own ahupua'a. Make sure you have the three main regions of the islands: the mountains, the valleys, and the shore.



Name:

Date:

Day 2- School Tour

Record your observations from your tour of the school campus. What did you notice about areas that are more “urbanized” than areas that are more natural?

<p style="text-align: center;"><u>Urbanized</u> <i>What are human-made features?</i></p>	<p style="text-align: center;"><u>Natural</u> <i>What are natural features?</i></p>
<p style="text-align: center;">What are some positive and negative ways we impact our environment?</p>	

Name:

Date:

Read and Respond NONFICTION

Article/Author:

Main Idea:

Supporting Detail 1:

Supporting Detail 2:

Supporting Detail 3:

Three Important Facts or Statistics:

1. _____

2. _____

3. _____

One Opinion From the Article:

My Opinion About the Article:

Author's Purpose

- Persuade
- Inform
- Entertain
- Explain
- Describe

Text Structure

- Description
- Problem & Solution
- Order & Sequence
- Cause & Effect
- Compare & Contrast

Name: _____

Date: _____

Name: _____ Title: _____

THINK ABOUT THEMES

Theme is the **big picture**. It is the message the author is trying to tell you. Theme is a **universal message**. That means it is something that can apply to everyone, not only the characters in this story. The author won't tell you the theme. You must **infer** it. Write the theme of this story on the message in the bottle. Then, give examples that helped you to figure out the theme.

How do you know?

How do you know?

How do you know?

What's the message?
The THEME is...

Name:

Date:

Read and Respond NONFICTION

Article/Author:

Main Idea:

Supporting Detail 1:

Supporting Detail 2:

Supporting Detail 3:

Three Important Facts or Statistics:

1. _____
2. _____
3. _____

One Opinion From the Article:

My Opinion About the Article:

Author's Purpose

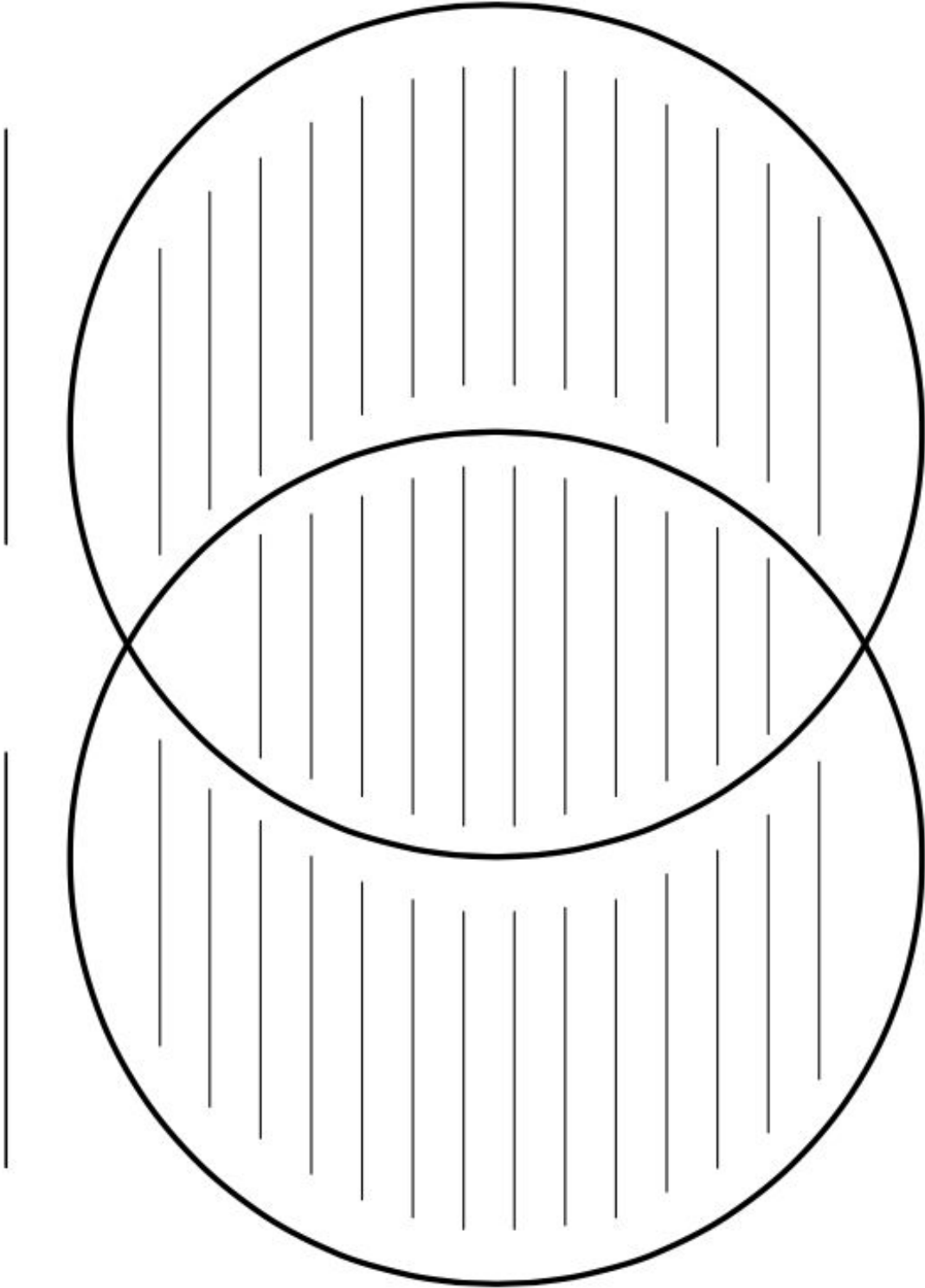
- Persuade
- Inform
- Entertain
- Explain
- Describe

Text Structure

- Description
- Problem & Solution
- Order & Sequence
- Cause & Effect
- Compare & Contrast

Name:

Date:



Name:

Date:



Nu'upia Ponds Scavenger Hunt

Check the box of each plant and animal that you see. Circle "N" for native OR "I" for introduced.



Hawaiian Duck (Koloa)

N or I



Red Mangrove

N or I



Hawaiian Stilt (Ae'o)

N or I



Black-crowned Night Heron

N or I



Kiawe Tree

N or I



Hawaiian Coot

N or I



Indian Mongoose

N or I



Koa Haole

N or I



HI Green Sea Turtle

N or I



Milo Tree

N or I



Silver Buttonwood

N or I



What is this animal?

N or I

Name

Name:

Date:

Learning Journey- Exit Slip

1. What are 3 things that you learned...

2. What was the best part?

3. What should be improved on?

4. What is something that surprised you?

5. What are your biggest takeaways?

Name:

Date:

Project Proposal Form

Name of Group Members:

You have been tasked with a very important job! Your job is to propose a plan to Mālama ‘Āina at Mōkapu! Please answer the questions below thoroughly to get your project approved.

Project Goal: Persuade your audience to help you become successful!

1. What is the name of your proposed project? (This may revise later) _____
2. What obstacles might you face in launching and creating your project?
3. How do you plan to share your project to others?

Name:

Date:

Describe your project using the form below:

<p>Who (Who will be using this/Who is your target audience?)</p>	
<p>What (What is its purpose and What is it used for?)</p>	
<p>Where/When (Where and When will your project be used?)</p>	

Name:

Date:

<p>Why (Why is this project something people should invest in and be a part of?)</p>	
<p>How (How will this project benefit people?)</p>	



Mālama 'Āina Unit

What is an Ahupua'a?

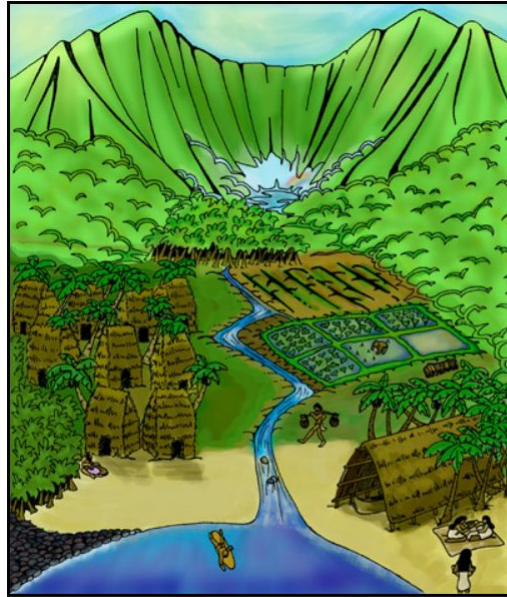
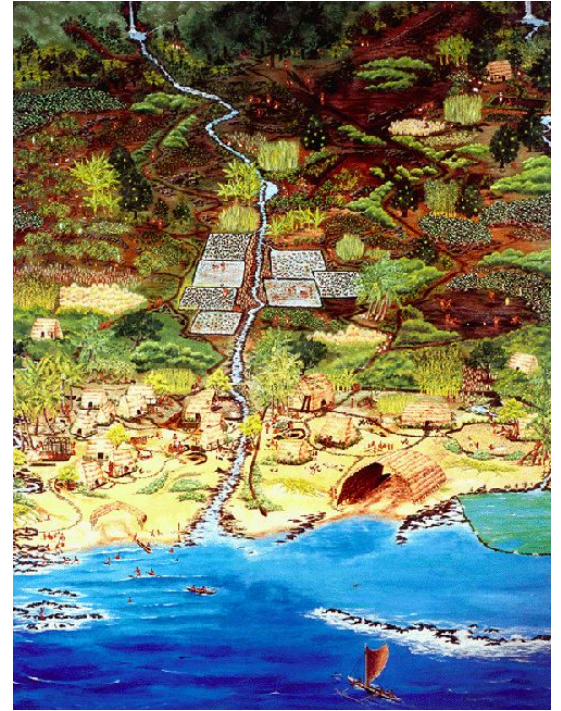


Figure 1. Illustration by Mele McPherson. "Ke Ahupua'a," 1994. Image courtesy of Hale Kuamo'o, The Hawaiian Language Center, University of Hawai'i at Hilo.

- ↳ Mountains to the sea
- ↳ Preserved natural systems



From the Mountains to the Seas

Mountain

- rainforests
- trees for canoe building
- trees for house posts
- wild banana trees
- wild pigs
- other natural resources

Valley

- Lush farmland
- fresh water streams for drinking and watering crops
- taro to make poi
- sweet potato
- bananas
- ti leaf for wrapping food, making hula skirts, and more

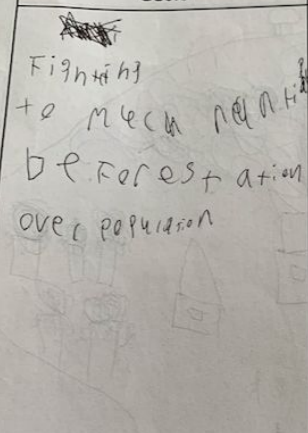
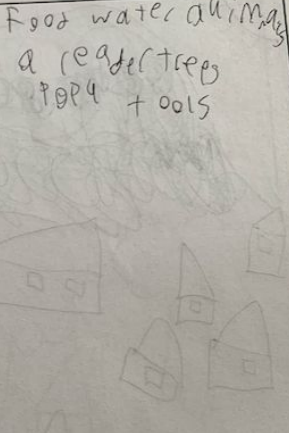
Shore

- beaches
- reefs
- fishponds
- gathering salt
- shellfish, lobster, crab
- gathering seaweed
- shore fishing
- deep ocean fishing.

Cost/Benefit Analysis - What Do You Think of the Ahupua'a System?

- How this method **help** the people of Hawaii?
- How it **help** Hawaiians to have access to mountains, valleys, and shorelines?
- Do you think it might **hurt** Hawaiians to be limited to certain areas of the island?
- What are some other **costs** of the Ahupua'a?

Directions: With a partner, list both costs and benefits of the Ahupua'a system for the Hawaiian people

Costs	Benefits
<p>Food</p> <p>Fighting to reach near be forestation over population</p> 	<p>Food water animals</p> <p>a regular trees</p> <p>POP + tools</p> 

Would you use the Ahupua'a system if you were the Chief? Why/why not

yes because I have all the resources that I would need to survive yes because I would provide all the resources and take care of the people that are needed


Date: 4-19-20

Directions: With a partner, list both costs and benefits of the Ahupua'a system for the Hawaiian people

Costs	Benefits
<ul style="list-style-type: none"> Not everyone gets the same resources as easy The people don't get all the resources they need from where they live You can only get your resources where you live If something goes wrong you might not survive You can't share with people not in your system You can lose resources quicker 	<ul style="list-style-type: none"> You can only get what you need You can't ever hunt You can't be greedy There is balance


Would you use the Ahupua'a system if you were the Chief? Why/why not

I would not use this system in my opinion because if something bad happens to their system they live in they can't leave and use other peoples resources. The people can die from this system. I would use the part you can only get what you need, but I would allow people to leave their place/system they live in. Also if the stuff runs out in your ecosystem they can't do anything but not with my system.



If you were in charge and you had to make sure that all of your people could find food and make shelter, what would you do?





Design your own ahupua'a.
Make sure you have the three
main regions of the islands:
the mountains, the valleys,
and the shore.





What was the
balance of an
ahupua'a?



Balance in an Ahupua'a

- **A complete balance in this land system is what kept the Hawaiian people alive.**
- **Each ahupua`a contained the resources the human community needed, from fish and salt, to land for farming taro or sweet potato, to koa and other trees for shelter growing in upslope areas.**
- **In old Hawai'i, people bartered/traded for goods**
- **The kapu (taboo) - were set and enforced by konohiki and kahuna, whom placed restrictions on fishing certain species during specific seasons, on gathering and replacing certain plants, etc.**

Oahu

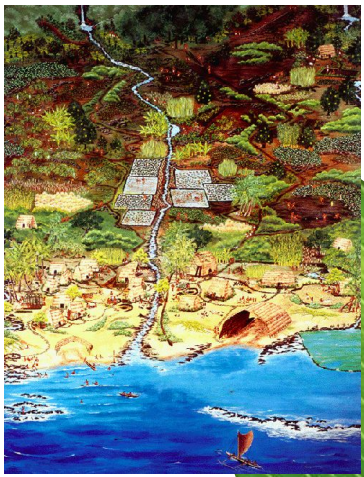


HAWAII STATE ARCHIVES



80° 7:51 PM

Mōkapu Over Time





Human Impacts on ‘Āina

- **We will be taking a school tour. We will record our observations from your tour of the school campus. What did you notice about areas that are more “urbanized” than areas that are more natural?**

Name: Madison Lane
Date: March 10, 2020

3
Day 2 School Tour

Record your observations from your tour of the school campus. What did you notice about areas that are more "urbanized" than areas that are more natural?

Urbanized What are human-made features?	Natural What are natural features?
<ul style="list-style-type: none">• fence• car• school• lunchbox• park• wood• Buddy bench• houses• trampoline• bins• stop sign• air	<ul style="list-style-type: none">• trees ✓• grass• woods• bushes• flowers ✓• sewer water• fish ✓• birds ✓• clouds ✓• water ✓• birds ✓• etc

• Bananas peels help
envoing
our
POOP

Neg: We can effect the
environment by hurting nature,
and we cut down trees which
gets rid of nature.

Pos: don't hurt nature and not
cut down the trees and
insted plant more trees.



Discussion

- What did you see?
- What were some man-made features?
- What were some natural features?
- How have we impacted/affected our environment?

Human Impacts on 'Āina

- **How can we (humans) affect the environment?**



“

– Use [this](#) interactive to explore key human impacts on the environment and what effects they have had over time.



Human Impacts on 'Āina

In groups you will read the articles and fill out a *Read and Respond Nonfiction* graphic organizer. Be ready to share your findings to the class.

- [Light Pollution & Air Pollution](#)
- [Point Source and Nonpoint Sources of Pollution](#)
- [Smog](#)
- [Noise Pollution](#)
- [Runoff](#)

NONFICTION

Main Idea: smog is air pollution.

Three Important Facts or Statistics:

1. Mexico you'd to have the cleanest air now its the dirtiest chemical smog is pho
2. many countries have created laws on chemicals.
3. One Opinion From the Article: Avoid gas powered yard equipment use electric options instead.

My Opinion About the Article: it makes you wonder if people

Supporting Detail 1: smog is unhealthy to humans and can kill plants.

Supporting Detail 2: smog helps robbers into homes and shops.

Supporting Detail 3: smog can cause itchy burning eyes.

Author's Purpose: Persuade Inform Entertain Explain Describe
tells about smog

Text Structure: Description Problem & Solution Order & Sequence Cause & Effect Compare & Contrast
has different sub topics.

Read and Respond NONFICTION

Article/Author: A. Lee

Main Idea: pen testers and their pens are a public safety

Three Important Facts or Statistics:

1. the city got better when the 201
- 2.
- 3.

One Opinion From the Article:

My Opinion About the Article: it convinces people about the clean area and water and to clean up the area

Supporting Detail 1: pen testers use chemical that testers a not use water from many sources

Supporting Detail 2: pen testers use carbon many places at events

Supporting Detail 3: in the states create act and the clean water act

Author's Purpose: Persuade Inform Entertain Explain Describe

Text Structure: Description Problem & Solution Order & Sequence Cause & Effect Compare & Contrast



Presentation

- Share your article
- If you're not presenting take notes:
 - Main idea
 - Detail 1, 2, and 3
 - Share Your Opinion

A decorative graphic on the left side of the slide features several green leaves of various sizes and shades, along with light blue circles of varying diameters, all set against a white background.

Kahoot

Test students' knowledge of how humans impact the environment through their human footprint, the introduction of invasive species, and the destruction of habitats.

A decorative graphic on the left side of the slide. It features three green leaves of varying sizes and shades of green, arranged in a cluster. The largest leaf is at the top left, showing detailed vein patterns. Below it are two smaller, simpler leaves. Interspersed among the leaves are four light blue circles of different sizes, some partially cut off by the edges of the frame.

Review Yesterday

Let's talk story about ... Hāloa!

The story of Hāloa takes us back to the beginning of the Hawaiian people. So, to learn about Hāloa, we need to first learn some basics of Hawaiian genealogy.

Hāloa's father is Wākea. He is the expanse of the heavens. Hāloa's mother is Ho'ohōkūkālani. Her name means to adorn the heavens with stars. Ho'ohōkūkālani's mother is Papa, the foundation that is earth.

Ho'ohōkūkālani gave birth to a baby boy. But the baby was stillborn. The parents buried the baby on the eastern side of their house, the side of the morning sunrise.

Before long, a plant started growing from the same spot where the baby was buried. This plant had a long stalk and a large, heart-shaped leaf. The leaves quivered and fluttered in the wind. This plant was named Hāloanakalaukapalili. It was the first kalo plant.

Ho'ohōkūkālani became pregnant again. This time, a healthy baby boy was born. He was given the name "Hāloa" in honor of his older brother, the kalo. Hāloa was the first Hawaiian person.

It is said that all Hawaiians trace their roots back to Hāloa. This means that we are all "mamo na Hāloa," or descendants of Hāloa. Through our relationship to Hāloa, we are related to the kalo, the 'āina, and the rest of the natural world.

The story of Hāloa reminds Hawaiians that we are part of nature. The plants, animals, and islands are our ancestors, our kūpuna. We need to acknowledge and mālama these important connections.

http://www.kumukahi.org/units/ka_hikina/haloa

EQ: What can the Hāloa mo'olelo (story) teach us about our relationship between people and the land?

I think the Hāloa mo'olelo story is to teach us that plants can grow wherever whenever and family is what matters

What is the moral of the story?

Think about what you know about the roles of older siblings and younger siblings?

Remember:

The Inference Equation

What I read + What I already know = What I infer

To respect and be grateful for the land and the people who live in the land and to care for both the land and the people.

To show everybody with the same respect older or younger.

that were all connected somehow

that we need to care for the land

MĀLAMA 'ĀINA

- Mālama 'Āina means that if you take care of the land and the land will take care of you
- Hāloa tended to his older brother, Hāloanakalaukapalili who then in turn provided for him
- Just like how we are supposed to be respectful of our elders and our elders take care of us and provide for us
- The ahupua'a system we learned about helped Hawaiians Mālama 'Āina
- Think-pair-share

Earth Day



- Have you heard of Earth Day?
- We will read an article, *Celebrate Earth*

Discussion Points:

- “Is it possible to make a big impact on the environment by making small changes?”
- “Why is it important to celebrate Earth Day?”

Title/Author: _____

Main Idea:

What Earth Day means and what we do for Earth Day

Supporting Detail 1:

I think if we ride bikes and not use cars that much there will not be pollution

Supporting Detail 2:

Its telling us the difference about how earth was like in 1960 and now also what they did for earth day

Supporting Detail 3:

Earth Day proved that many Americans truly cared about the environment. The government got the message—and got to work. It passed laws to protect the air, water, land, and animals.



compare

- THE MĀLAMA 'ĀINA CONCEPT AND THOSE WHO CELEBRATE EARTH DAY
- WHAT IS THE SAME?
- WHAT IS THE DIFFERENCE?





Learning Journey - Mālama 'Āina in action



YOUR TURN:

How are
PEOPLE are
IMPACTING THE
environment
IN BOTH
negative and
POSITIVE ways?



How can we mālama ‘āina?

Brainstorm ways how you
can impact the
environment in a positive
way

The background features several green leaves of various sizes and shades, along with light blue circles. One large leaf is prominent on the left side, showing detailed vein patterns. Other smaller leaves and circles are scattered around it.


Writing Your Proposal

a proposal is a type of persuasive writing where you are asked to propose an idea and provide evidence to convince the audience why it is a good or bad idea

A decorative graphic on the left side of the slide. It features a large, detailed green leaf with prominent veins, a smaller solid green leaf, and a very small dark green leaf. There are also four light blue circles of varying sizes scattered around the leaves. The background is white.

Writing Your Proposal (continued)

Persuade audience members that Mālama ‘Āina is important and they should join your proposed project (beach clean up, recycle drive, etc.)

The background features several light gray circles of varying sizes and several green leaves of different shapes and sizes, some with detailed vein patterns. The text is centered in the upper right quadrant.

“ If we were to invite people to share what we learned about Mālama ‘Āina, who would you want to invite?

A decorative graphic on the left side of the slide. It features a large green leaf with detailed vein patterns, a smaller solid green leaf, and a very small dark green leaf. There are also four light blue circles of varying sizes scattered around the leaves. The background is white.

Work Day

As a group you will be filling out the proposal packet



Work Day

- Finish the Proposals and show them to Ms. Hirayama or Ms. Jackson for approval
- Then you can start your presentation

Presentation:

1. Explain what Mālama 'Āina means
2. How you can Mālama 'Āina
3. Propose your plan

Remember EVERYONE needs a part !



Sharing Your Proposals

Good luck!

For those who aren't presenting, take notes:

In your notebooks:

- What was their issue they want to solve?
- Why should you be a part of it?

On a post-it:

- One Glow
- One Grow