



# Science Learning Options

Choose 1 activity to do each day.



## Nature Micro-Hike (Sounds)

With an 'ohana member, find a safe place to sit outside. Close your eyes. What do you hear? Then, discuss the sounds you heard. What sounds were the same? What sounds were different? What might be some reasons you and your 'ohana member tuned into different sounds? Look around for the sources of those sounds. How easy/difficult were they to locate? Why?

## Weather Observations Tracking the weather

Kilo the weather 2 times each day – 1 time in the morning and 1 time in the afternoon – during the month of April. Record your observations. (Make sure to kilo it at the same time each day). What weather patterns did you notice in April? Explain. How does the weather affect the living and non-living things around your home?

## 'Apapane and 'I'iwi Birds (Compare/Contrast)

<https://abcbirds.org/bird/apapane/>  
<https://abcbirds.org/bird/iwi/>

With an 'ohana member, watch the 'Apapane video clip, read the text, and discuss what you learned. Then, watch the 'I'iwi video clip, read the text, and discuss what you learned. Create a Double Bubble Map to compare how 'apapane and 'i'iwi are alike and different. Use information from both texts (hint: what the birds eat, threats) as well as their physical traits.

## Observation Chart

With an 'ohana member, scan (quickly look) all the pictures on the chart. Then, choose one picture to kilo closely. Next, record what you observed using details. What do you wonder about that object? Write a question you have. After, make a prediction based on what you observed and wondered about. Finally, think about what the pictures have in common.

## Mālama 'Āina (Caring for the land around your home)

What does it mean to mālama 'āina? Mālama 'āina means "care for the land." How do you mālama 'āina? Make a Circle Map of the ways you care for the land around your home or school. Then, peek at the 'āina around Kumu's house and the plan she created to mālama 'āina. What other ways might you care for your land? With an adult 'ohana member, make a plan and take action.

## 'Āina (That Which Feeds Us)

[kumukahi.org](http://kumukahi.org)

(Click on the link. Go to videos. Click on the Āina video)

Watch the video. How is your 'āina similar? How is your 'āina different? Write 3 new things you learned. Write 2 connections you made. Write 1 question you have. Research to find out the answer to your question.

## Leaf Observation (Leaf traits)

With an 'ohana member, go outside and find 2 different leaves to kilo. Place the leaves side by side. Observe and describe each leaf's traits. Then, compare/contrast the leaves. How are the traits alike? How are the traits different? What might be some advantages of having those particular traits? Why? Record your observations. Research to find out more about how these traits help plants to survive.

## Mystery Science – Part 1

### "What's the Best Way to Get Rid of Mosquitos?"

<https://mysteryscience.com/animals/mystery-7/environmental-change-engineering/266?code=NDEwMDY3MDQ&t=student>

One thing we know about mosquitos is that they hurt our native birds. Share with an 'ohana member what you think you know about mosquitos. Then, use the link to watch the video. Write 2 new things you learned about mosquitos. Write one thing you still wonder about mosquitos. Research to find the answer to your question.

## Mystery Science - Part 2

### "What's the Best Way to Get Rid of Mosquitos?"

<https://mysteryscience.com/animals/mystery-7/environmental-change-engineering/266?code=NDEwMDY3MDQ&t=student>

Reread the 2 things you learned about mosquitos and the wondering you had. With an 'ohana member, go outside and walk around your yard. Kilo which areas collect the most water - perfect breeding grounds for mosquitos. Brainstorm several solutions to reduce mosquitos from breeding in the water. Then take action to remove stagnant water from your yard.



## Nature Micro-Hike (Sounds)

1. With an 'ohana member, find a safe place to sit outside.
2. Sit quietly. Close your eyes for a few minutes. What do you hear?
3. Discuss the sounds you heard. What sounds were the same? What sounds were different? Why might you, and your 'ohana member, have tuned into different sounds? Explain.
4. Look around for the sources of those sounds. How easy or difficult were they to locate? Why?
5. Once inside, record your observations.

You	'Ohana Member
<p><b>Example:</b></p> <ul style="list-style-type: none"><li>• Dog barking</li><li>• Chicken crowing</li></ul>	<p><b>Example:</b></p> <ul style="list-style-type: none"><li>• Chicken crowing</li><li>• Lawn mower</li></ul>

Why might you, and your 'ohana member, have tuned into different sounds? Explain (remember to use **“because”** in your explanation).

Which sounds were easy to locate? Which sounds were difficult to locate? Why?



Observation Chart





## Observation Chart

### Directions:

1. Scan (quickly look) all the pictures on the chart.
2. Choose one picture to kilo closely.
3. Record what you observed in that picture using details.
4. What do you wonder? Write a question you have.
5. Make a prediction based on what you observed and wondered about.
6. Select another picture to observe. Repeat steps 3-5.

Remember to use a bullet for each new idea.

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<p><b>First</b></p> <p><b><u>Observations (kilo)</u></b></p> <p>I kilo... I observed... I noticed...</p>	<p><b>Next</b></p> <p><b><u>Questions (nīnau)</u></b></p> <p>Who? What? When? Where? Why? How?</p>	<p><b>After</b></p> <p><b><u>Predictions (wānana)</u></b></p> <p>I predict... I think.... "because"</p>
<p><b>Example</b></p> <ul style="list-style-type: none"> <li>• I kilo the ti leaf plant is being overgrown by the other plants.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• What plants are growing over the ti leaf plant?</li> </ul>	<ul style="list-style-type: none"> <li>• I predict the plants are invasive plants because the ti leaf plant is being covered by the other plants.</li> <li>•</li> </ul>

Based on your observations, what do these pictures have in common? Explain.

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# Leaf Observation

## Leaf traits

With an 'ohana member, go outside and find 2 different leaves to kilo. Place the leaves side by side. Observe and describe each leaf's traits. Then, compare and contrast the leaves. How are the traits alike? How are the traits different? What might be some advantages of having those particular traits? Why? Record your observations. Research to find out more about how those traits help plants to survive.

Leaf 1		Leaf 2	
<b>Draw and color.</b> 	<b>Traits:</b> <ul style="list-style-type: none"><li>• smooth</li><li>• Soft</li><li>•</li></ul>	<b>Draw, color, label.</b> 	<b>Traits:</b>

What might be some of the advantages of having those traits? Explain (remember to use **"because"** in your explanation).

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## Weather Observations Tracking the weather

Kilo the weather 2 times each day – 1 time in the morning and 1 time in the afternoon – during the month of April. Record your observations. (Make sure to kilo it at the same time each day). What weather patterns did you notice in April? Explain to an ʻŌhana member.

### April

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Morning</b>	6	7	8	9	10
<b>Afternoon</b>					
<b>Morning</b>	13	14	15	16	17
<b>Afternoon</b>					
<b>Morning</b>	20	21	22	23	24
<b>Afternoon</b>					
<b>Morning</b>	27	28	29	30	
<b>Afternoon</b>					



## Mālama ‘Āina

What does it mean to mālama ‘āina? Mālama means “care for”. ‘Āina means “land”. Mālama ‘āina means “care for the land.” How do you mālama ‘āina? With an ‘ohana member, talk about how you mālama ‘āina at home or at school. Make a Circle Map to record as many ideas as you can think of.

### Example:

- mow the lawn

How do you  
mālama ‘āina at  
home?





# Mālama 'Āina

## What do you know about Kumu's 'āina?

albizia tree



Did you know albizia trees are invasive? They grow quickly and grow taller than trees in the canopy layer of the forest.

If you observed that my 'āina is **overgrown**, you are correct! Did you spy my ti leaf plant? It is surrounded by "**invasive**" plants. And, you know what happens when invasive species are **introduced** to a new **environment**. Invasive plants harm and damage the native **ecosystem**. That is a **HUGE** problem!

"What is Kumu going to do to solve this problem?" you might ask. Well, let me tell you what I'm doing.

**First**, I wondered... How can I remove the harmful plants without damaging the native and helpful plants?

**Then**, I made a plan with these questions in mind.

- **Where** should I start?
  - On the outside moving inward.
- **What** protective tools might I need?
  - Gloves, eye protection, hat, long sleeve shirt/pants, covered shoes, bug spray
- **What** garden tools might I need?
  - Spade, shovel, loppers, saws
- **Who** might I need to help me with this job?
  - My husband and son
- **What** will I do with the waste?
  - Make compost, drop off in "green" waste bins at rubbish dump.
- **When** should I start/work?
  - As soon as possible, when weather is good (sunny, light rain)



# Mālama 'Āina

What do you kilo about Kumu's 'āina now?



**Day 1**

Many invasive plants removed. Ti leaf plants have room to grow and thrive. Look at the small ti leaf plant I discovered growing after the invasive plants were removed. How did it survive?

I was able to pull-out most of the plants with my hands, but I used small loppers to cut down the plants that were rooted firmly in the ground.

On **Day 4**, I plan to finish removing the invasive plants in this area. Then, I will mālama 'āina another area of my yard.

**Day 2**

Where did that albizia tree go? My husband used a small chain saw to cut it down. It's trunk was too thick and wide for my loppers to cut through. Guess what happened to that baby ti leaf plant? It grew one inch overnight! I'm going to start recording its growth over time.



**Day 3**

We loaded the "green" waste into our truck, drove to the rubbish dump, and placed it in the green waste bin. Next time, we'll make compost with it.



## Mālama ‘Āina: Plan of Action

With an adult ‘ohana member, go outside and kilo your ‘āina. What do observe? What areas allow native or helpful plants to thrive? In what areas, might plants need your help? With your adult ‘ohana member, make a plan to mālama ‘āina. Write or draw it.

After, you may want to create a journal to:

- Record your observations – what the ‘āina looked like before you started and how the ‘āina is changing with your help.
- Record how you feel about taking care of the ‘āina.
- Create a photo journal to record your progress

Note: For safety reasons, you must work with an adult on this project.

### When making your plan, some questions to consider are:

- Where should I start?
- What protective tools might I need?
- What garden tools might I need?
- Who might I need to help me with this job?
- What will I do with the waste?
- When should I start/work?





## **Mālama ‘Āina: Plan of Action**

Write or draw your plan of action.





## Mystery Science – Part 1

### “What’s the Best Way to Get Rid of Mosquitos?”

<https://mysteryscience.com/animals/mystery-7/environmental-change-engineering/266?code=NDEwMDY3MDQ&t=student>

Share with an ‘ohana member what you think you know about mosquitos. Then, use the link to watch the video. Write 2 new things you learned about mosquitos. Write one thing you still wonder about mosquitos. Research to find the answer to your question.

Two new things I learned...

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

One thing I wonder about...

1. \_\_\_\_\_

\_\_\_\_\_

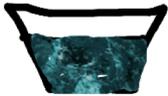




## Mystery Science – Part 2

### “What’s the Best Way to Get Rid of Mosquitos?”

Reread the 2 things you learned about mosquitos and the wondering you had. With an ‘ohana member, go outside and walk around your yard. Kilo which areas collect the most water - perfect breeding grounds for mosquitos. Brainstorm several solutions to reduce water to help keep mosquitos away. Circle one solution you are going to test. Then, take action. Observe what happens. How well did your solution work to reduce water?

Areas collecting water	Possible Solutions		
<p data-bbox="170 439 465 479"><b><u>Draw and Label</u></b></p>  <p data-bbox="394 529 523 565">bucket</p>	<p data-bbox="697 439 877 479"><b><u>Solution 1</u></b></p> <p data-bbox="595 529 993 611">Dump out water and turn bucket over</p>	<p data-bbox="1128 439 1307 479"><b><u>Solution 2</u></b></p> <p data-bbox="1045 529 1392 611">Store bucket in the carport</p>	<p data-bbox="1559 439 1738 479"><b><u>Solution 3</u></b></p> <p data-bbox="1476 529 1823 611">Put a cover on the bucket</p>

I observed...(draw or write)

My solution (worked, did not work) because...



## 'Apapane and 'I'iwi Birds Compare and Contrast

Create a Double Bubble Map to compare how 'apapane and 'i'iwi adults are alike and different. Think about their physical traits as well as what you learned from the texts. Then, discuss how these two birds are able to survive in the same ecosystem.

**Different**

**Same**

**Different**



'Apapane adult



'I'iwi adult





# 'Āina That Which Feeds Us

Write 3 new things you learned. Write 2 connections you made. Write 1 question you have. Research to find out the answer to your question.

Three new things I learned...

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

Two connections I made...

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_

One question I have...

- 1) \_\_\_\_\_

