

Aloha ‘Āina Packet

‘Uhaloa Is Maika‘i Loa!

Aloha! ‘O _____
ko‘u inoa.
(*Hi, my name is...*)

No _____ mai au.
(*___ is where I’m from*)

Manawa (date): _____

The purpose of this Aloha 'Āina Packet is to provide keiki with fun activities that can connect them to 'āina from home while we “shelter-in-place” during the COVID-19 crisis. We want to encourage our keiki to go outside and to open their senses to the environment around them in a safe and healthy way.

All activities in this packet can be done with your 'ohana!

The Aloha 'Āina Packet was brought to you by the Wai'anae Wellness and Place-Based Learning Alliance:

The Cultural Learning Center at Ka'ala
Hoa 'Āina O Mākaha
Mālama Learning Center
MA'O Organic Farms
PALS & PLACES, University of Hawai'i at Mānoa,
Searider Productions
Wai'anae Coast Comprehensive Health Center

The Wai'anae Wellness and Place-Based Learning Alliance is an informal association of community-based organizations that are dedicated to providing hands-on, place-based learning experiences and connections to healthy living for Wai'anae children and families.

Mahalo to Hoa 'Āina O Mākaha, Nānākuli Elementary School, Ulu A'e Learning Center, University of Hawai'i at Mānoa Cooperative Extension Service, PALS & PLACES, Corteva Agriscience, and all of our partners for making it possible to get these packets into the hands of our keiki.

Produced in May 2020

If you have any questions about this packet, please contact Mālama Learning Center at info@malamalearningcenter.org or 808-305-8287.



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‘Uhaloa Is Maika‘i Loa!

Why are Native Plants Important?

Native plants are important to Hawai‘i’s ecosystems. Native plants arrived to the islands naturally, arriving by one of the three W’s: Wind, Wings (birds), and Waves. Native Hawaiian plants are either indigenous (occurring naturally in Hawai‘i and other locations) or endemic (found only in the Hawaiian Islands). Native plants provide services such as creating habitat for other native species, recharging our groundwater aquifers, and providing resources to practice Hawaiian culture. Many native plants can be used for multiple purposes such as medicine, tools, canoe and hale building, and much more making their existence vital to our cultural identity. Today, native species are being threatened by invasive species, development, wildfires, and other human causes.



‘Uhaloa is a native plant that can be found throughout leeward O‘ahu. Take a close look and see if you can find it growing in the wild!

Importance of the Native ‘Uhaloa

Scientific Name: *Waltheria indica*

Don’t have much of a green thumb? ‘Uhaloa can easily be grown and is a great plant for first time gardeners. ‘Uhaloa readily grows once established, in fact it can sometimes become a bit weedy and might need some trimming in the future. ‘Uhaloa has green fuzzy leaves and tiny yellow flowers. The small hairs are an adaptive trait that help it reflect sunlight and can sometimes give it a silvery appearance. One reason you should grow ‘uhaloa is because of its use in lā‘au lapa‘au or traditional Hawaiian medicine. Parts of the plant can be made into a tea to treat asthma, inflammation, diarrhea, arthritis and the common cold. Chewing on the root of the plant can also help relieve sore throats. ‘Uhaloa is a member of the hibiscus family (Malvaceae) and is indigenous (naturally occurring here and other locations) to Hawai‘i. Although you might not have noticed it before, ‘uhaloa can easily be found growing on the leeward side. It makes a good groundcover! Take a good look at what it looks like and see if you can spot any growing in the wild!

Source: <https://www.waikoloadryforest.org/plants/uhaloa/>

‘Āina Activity - Grow Your Own ‘Uhaloa Plant

How to Plant ‘Uhaloa Seeds

1. Place a strainer of some kind on top of a bowl. If you don't have a strainer, just use a paper towel as a substitute for a strainer.
2. Gather the seeds of the ‘uhaloa. The seeds are inside the fluffy buds/fruit of the plant.
3. Place the fluffy buds/fruit into the strainer.
4. Use your fingers to gently rub the buds/fruit so the seeds break apart and fall into the bowl.
5. Get a small pot or make one (see instructions on next page).
6. Fill $\frac{3}{4}$ of the pot with loose soil that you can find around your house.
7. Sprinkle your seeds over the soil. If you used a paper towel, pour all contents onto the soil surface and mix around.
8. Lightly cover the seeds with a layer of soil so that they're covered.
9. Try to make sure the seeds are close to the surface of the soil. You don't want the seeds to be buried too deep where they are unable to break through the soil.
10. Once you've planted your seeds, say "E Ola! E ulu e!". (Live and grow!)
11. Carefully water your plant everyday, sprinkling water with your fingers so that it is like a gentle rain. Provide enough water so that all of the soil is moist, but be careful not to overflow your pot. Don't let the soil dry out.
12. Wait for ‘uhaloa seeds to germinate. The seeds may take 2 weeks to 6 months to germinate -- be patient!
13. Take care of seedlings by watering and giving them sunlight.
14. Gently move seedlings to bigger pots once they outgrows the pot. Eventually, you can put the plants in the ground if you have a yard.



Use a strainer or paper towel to break apart buds/fruit of the ‘uhaloa.



Seeds are in the bud/fruit of the ‘uhaloa.



Move your seedling into a bigger pot to allow it to grow bigger.

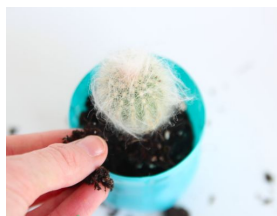
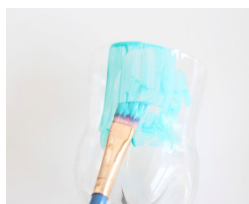
'Āina Activity - How to Make A Reusable Plastic Bottle Planter

Materials:

- Scissors
- Ruler
- Recycled plastic bottle
- Acrylic paint (optional)
- Plant or seeds
- Soil
- Yarn or jute twine (optional)

Instructions:

- Carefully cut your bottle in half (or about $\frac{1}{3}$ of the way from the bottom).
- *Parents, please help keiki with this part.**
- Make a few puka (holes) for proper drainage underneath the bottom portion of the cut bottle.
- Paint/decorate the bottom portion of the cut bottle and let dry.
- *This part is optional, but it does help to limit the exposure of your plant's roots to the sun. You could also cover the bottle with paper as another option.
- Fill your pot with soil.
- Plant your seeds or plant in newly created planter!
- Optional: Make a few holes around the rim of your planter and string yarn or jute twine through these holes to make a hanging planter.



‘Ōlelo No‘eau

(Hawaiian Wise Saying/Proverb)

‘Ōlelo No‘eau:

‘A‘ohe pau ka ‘ike i ka hālau ho‘okahi.

All knowledge is not learned in just one school.

One can learn from many sources. Our teachers, kūpuna, parents, aunties/uncles, siblings, community, and our ‘āina can all be sources of knowledge that we learn from.

Source: ‘Ōlelo No‘eau: Hawaiian Proverbs and Poetical Sayings by
Mary Kawena Puku‘i.

What does this saying mean to you? Who is someone you enjoy learning from? What do they teach you about? Write your answers below.

Let's Reflect

Below is a list of Hawaiian values that are important both on land and at sea. Choose three values from the list and explain why they are important in your life.

- **Aloha:** Love and Respect
- **Laulima:** Cooperation
- **Kōkua:** Helpfulness
- **Mālama:** Care for
- **Pono:** Correctness and Fairness
- **Kuleana:** Responsibility
- **Ho'omau:** Perseverance
- **Ha'aha'a:** Humility

Kilo ‘Āina

(Observing our Environment)

Take 15 minutes everyday to observe natural phenomena (wind, sun, moon, rain, clouds, plants, animals, ocean, etc...) and describe what you see, hear, and feel. Use the Hawaiian Moon Phase Dial you created (at the end of this booklet) to observe which moon phase it is. You can also draw pictures. Try to do this in silence so that you can really connect to your place. You can also show progress of the seeds that you've planted!

Kilo Day 1

Manawa (date):

Mahina (moon):

Kilo (observation):

Kilo 'Āina

Kilo Day 2

Manawa (date):

Mahina (moon):

Kilo (observations):

Kilo Day 3

Manawa (date):

Mahina (moon):

Kilo (observations):

Kilo 'Āina

Kilo Day 4

Manawa (date):

Mahina (moon):

Kilo (observations):

Kilo Day 5

Manawa (date):

Mahina (moon):

Kilo (observations):

Kilo 'Āina

Kilo Day 6

Manawa (date):

Mahina (moon):

Kilo (observations):

Kilo Day 7

Manawa (date):

Mahina (moon):

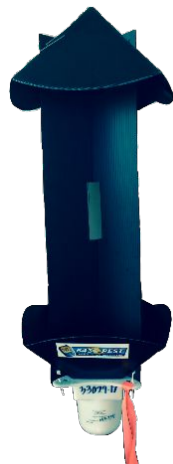
Kilo (observations):

‘A‘ole Invasive Species!

CRB Trap Scavenger Hunt

Coconut Rhinoceros Beetle (CRB) Traps

Have you seen these traps around your neighborhood and wondered what they were for? These traps are used to trap and track the movement and location of the Coconut Rhinoceros Beetle. not kill it. The traps are all black so the beetle cannot see the traps at night. When they fly around at night, they tend to hit the traps and fall into the cup at the bottom. The trap also has a pheromone or chemical attractant attached to it, which draws the beetle towards it. The Hawai‘i Department of Agriculture currently has deployed more than 3,000 of these traps on the island of O‘ahu. Can you find any of these traps near you?



Take a walk around your neighborhood with your family and see if you can find any traps. How many were you able to find? If you find one, take a few minutes and explain to your family what the trap is used for and how it works. Explain to your family that these traps are important because CRB are causing damage to the palm species in Hawai‘i. After you explain the trap, ask your family the following questions: What did you think these traps were used for before today? How do you feel about CRB in Hawai‘i? Do you have any recommendations on how to free Hawai‘i of this invasive pest?

How many traps were you able to find? _____

Reflect: Write 2-3 sentences summarizing your family's responses.

If you see any traps that have fallen or see suspected damage to coconut trees (V-shaped cuts or bore holes), please report it to the State PEST HOTLINE – 643-PEST (7378). Please ask an adult before calling. Please DO NOT kill or collect any CRB specimens. Report it to the PEST HOTLINE and take pictures!

*Information provided by the Hawai‘i Department of Agriculture (HDOA)
<http://hdoa.Hawai‘i.gov/pi/main/crb/>*

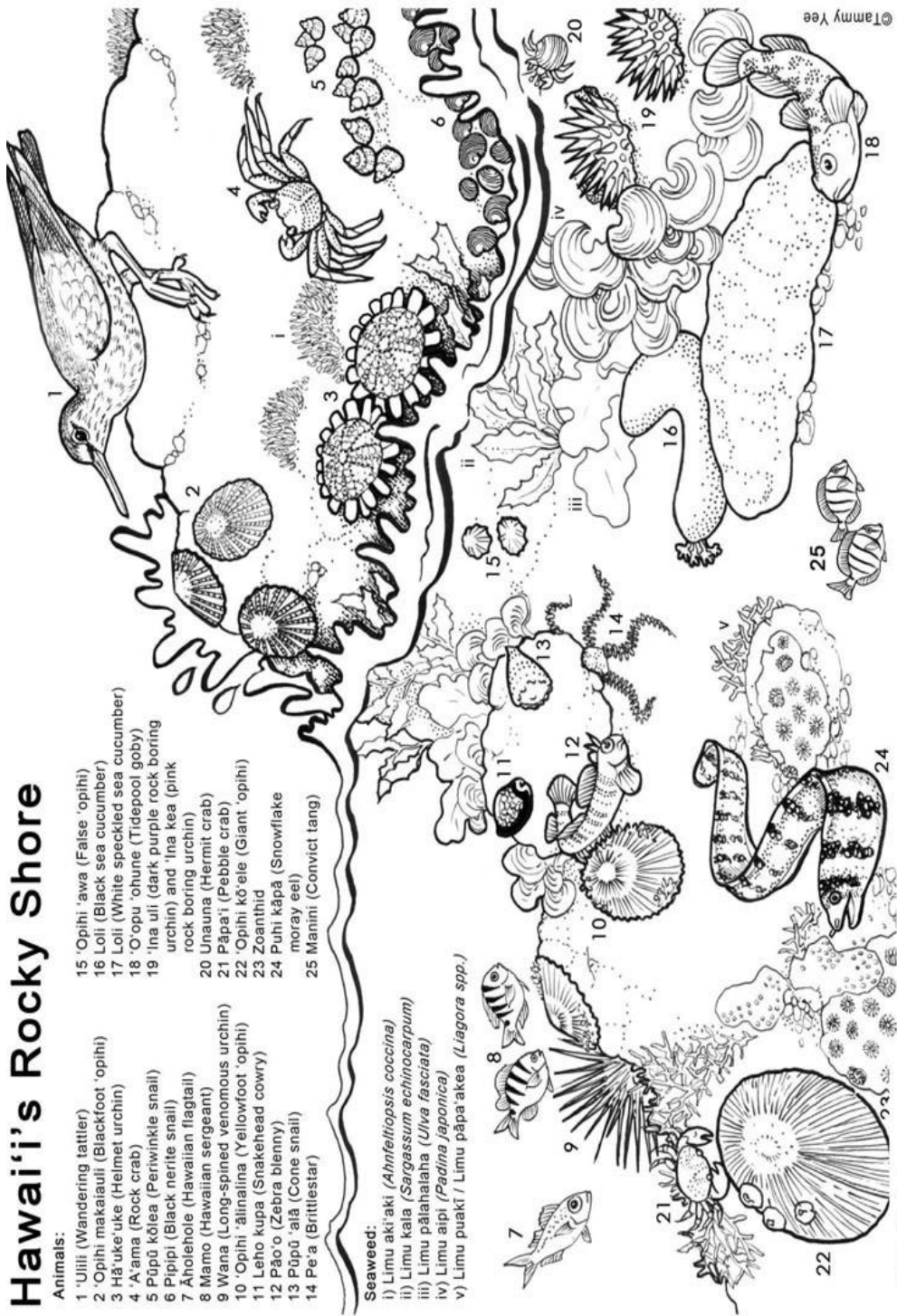
Hawai'i's Rocky Shore

Animals:

- 1 'Ulihi (Wandering tattler)
- 2 'Opihi makalaui (Blackfoot 'opihi)
- 3 Hā'uke'uke (Helmet urchin)
- 4 'A'ama (Rock crab)
- 5 Pūpū kōlea (Periwinkle snail)
- 6 Pipipi (Black nerite snail)
- 7 Āholehole (Hawaiian flagtail)
- 8 Mamo (Hawaiian sergeant)
- 9 Wana (Long-spined venomous urchin)
- 10 'Opihi 'āinalina (Yellowfoot 'opihi)
- 11 Leho kupa (Snakehead cowry)
- 12 Pā'o'o (Zebra blenny)
- 13 Pūpū 'alā (Cone snail)
- 14 Pe'a (Brittlestar)
- 15 'Opihi 'awa (False 'opihi)
- 16 Loli (Black sea cucumber)
- 17 Loli (White speckled sea cucumber)
- 18 'O'opu 'ohune (Tidepool goby)
- 19 'Ina uli (dark purple rock boring urchin) and 'Ina kea (pink rock boring urchin)
- 20 Unauna (Hermit crab)
- 21 Pāpā'i (Pebble crab)
- 22 'Opihi kō'eie (Giant 'opihi)
- 23 Zoanthid
- 24 Puhī kāpā (Snowflake moray eel)
- 25 Manini (Convict tang)

Seaweed:

- i) Limu aki'aki (*Ahnfeltiopsis coccinea*)
- ii) Limu kala (*Sargassum echinocarpum*)
- iii) Limu pālahalaha (*Ulva fasciata*)
- iv) Limu aipi (*Padina japonica*)
- v) Limu puaki / Limu pāpā'akea (*Liagora spp.*)



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Hana No'eau Art Activity

Pueo

(poo-eh-oh)

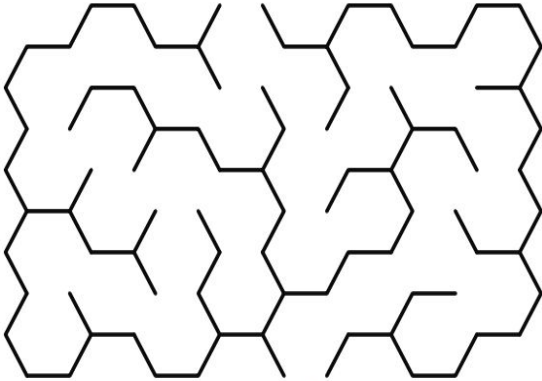
The **Pueo** is the native owl of Hawai'i.

Unlike most owls, **Pueo** are active during daylight hours, hunting the 'Iole (Rat) and other small animals.

Pueo are considered sacred and are believed to be the 'Aumakua (Guardian Spirits) of many 'Ohana.



Help the hungry Pueo through the maze to catch the 'Iole!



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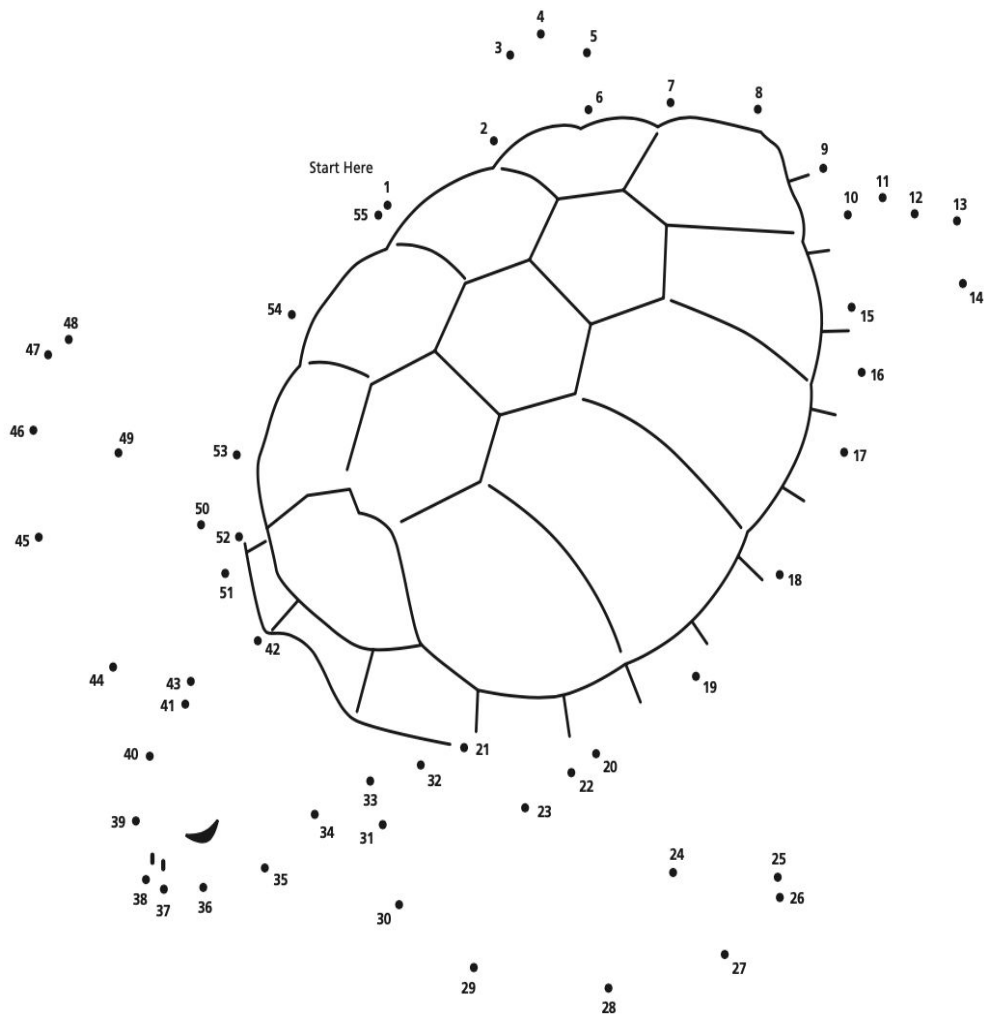
Native Creatures

www.makaiwakeiki.com

youtube.com/makaiwakeiki



A Sea Turtle's Story



How Can Litter Be Deadly to a Sea Turtle?

Sometimes sea turtles mistake litter in the water as food. Plastic bags look like jellyfish, sea turtles' favorite food. If swallowed, debris can block digestion or remain in the turtle's stomach, causing the turtle to feel "full" and eat less than it needs to survive. Plastic or plastic foam in a turtle's stomach can cause excess buoyancy, decreasing the animal's ability to dive deeper for prey.



Connect the Dots—Don't Let Your Trash End Up in the Ocean!

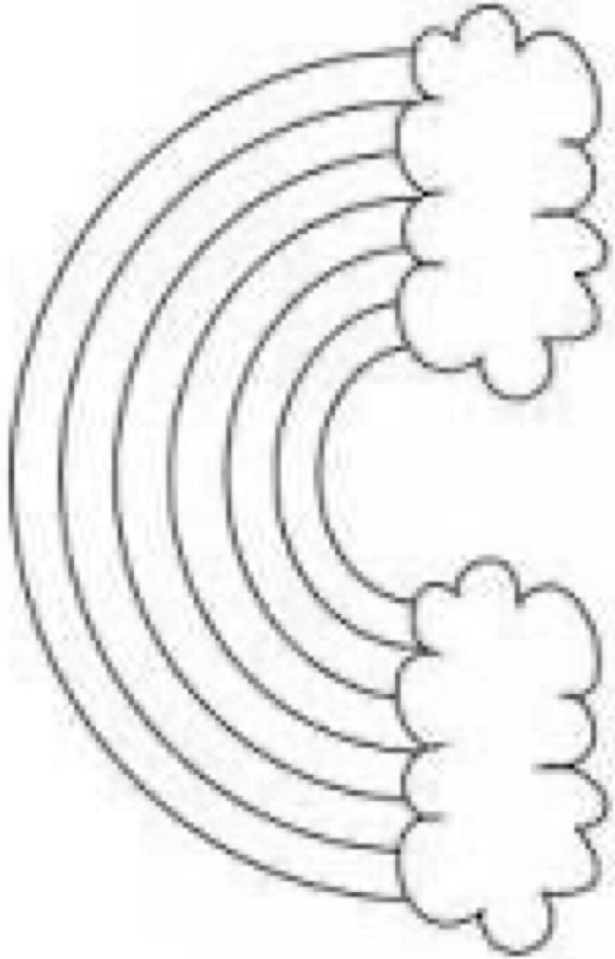
‘Ohana Activity

Ānueue

Drawing a Rainbow

Can you find each different color of the rainbow in your yard from flowers, fruit, soil, and leaves? Find each color and smear the object you found on the correct rainbow line.

- Red
- Orange
- Yellow
- Green
- Blue
- Purple



'Ohana Activity

HOW TO: BASIC COMPOSTING

Composting is NATURE'S way to recycle!

HOT COMPOST
ACTIVE COMPOST
PASSIVE COMPOST

Use your garden cuttings, kitchen scraps, a little air, a little water and natural decomposition to create healthy fertile soil!

It's easy - COMPOST HAPPENS!

Ingredients

- * 50% Greens - Nitrogen
- * 50% Browns - Carbon
- * Air
- * Water

Directions

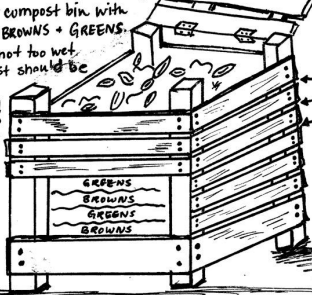
- ◆ Construct a compost bin with wood, wire mesh, scrap pallets or a trash bin (with drilled holes). The ideal size for a compost bin: 3ft wide x 3 ft deep x 3 ft tall.

- ◆ Layer your compost bin with equal parts BROWNS + GREENS.
- ◆ Moist, but not too wet. Your compost should be

WET like a runout sponge!

NOTE: Too WET and the compost will smell. Too DRY and the pile will not decompose.

FIX: Too WET? Add shredded newspaper.



- ◆ Place your bin in a shady spot, so your compost does not get dried out.
- ◆ Make sure your compost has ample air flow.

NOTE: Too little air causes the compost to smell like rotten eggs.

FIX: Turn pile and add more BROWNS.

◆ ACTIVE COMPOST

- Turn pile on a regular basis.
- Maintain proper moisture
- Your pile will heat to 120°-150° F when it no longer heats - stop turning and let cure for 2-3 weeks.
- Finished compost can be ready in ~12 weeks

◆ PASSIVE COMPOST

- Less Labor intensive - but takes longer.
- Turn ~ once per month and add water
- Compost will take 6-18 months.

★ COMPOST IS FINISHED - when the contents turns dark brown and has a pleasant earthy aroma.

FOR BEST RESULTS: Screen compost, return any remaining undecomposed pieces to the compost. Use finished compost and enjoy your healthy happy plants!

THINGS TO COMPOST

GREENS - nitrogen / 50%

- ⊙ Kitchen scraps: fruit and vegetable scraps, egg shells, coffee grounds + filters, tea, tea bags, bread and grains
- ⊙ Fresh garden trimmings
- ⊙ Fresh grass trimmings
- ⊙ Pulled weeds (NO SEEDS!)
- ⊙ Cow, chicken, rabbit manure

BROWNS - carbon / 50%

- ⊙ Dry woody material
- ⊙ Wood chips, twigs, sawdust
- ⊙ Paper: newspaper, shredded white paper, cardboard (NO GLOSSY PAPER)
- ⊙ Dry leaves or grass
- ⊙ Straw or hay

DO NOT COMPOST

- ✗ meat, fish, bones, dairy products (they attract pests and creates unsafe compost)
- ✗ weeds with mature seeds (will spread weeds everywhere)
- ✗ dog and cat manure (adds unsafe pathogens)
- ✗ Charcoal ashes
- ✗ Treated wood products

SC © MLC 2015

‘Ohana Activity

Make a Lei in May!

Materials:

- About 50-60 freshly picked flowers (plumeria, crown flower, puakenikeni, etc...)
- Bucket of water
- Strong thread/string (crochet thread is good)
- Lei needle or sewing needle (about 12")
- Scissors
- Newspaper
- Paper towel or dish cloth

Instructions:

- Soak fresh flowers in a bucket of water for about 5 to 10 minutes (get any bugs and milk off)
- Drain and let sit. Try not to handle the flowers a lot as they will bruise.
- Spread newspaper, then paper towel on it. Place your flowers on the paper towel.
- Measure thread around neck for desired length + 6 inches extra for tying at the end.
- String the thread through the needle and tie a triple knot on the open end side of string, 3" from end.
- Ku'i your lei (string with a needle), inserting from face-side of blossom, gently moving blossoms closer to each other along the string. Try not to leave any space between the flowers.
- *You can string about 6 flowers onto the needle first and then carefully slide each flower onto the thread one at a time to avoid tearing the flowers.**
- When you've reached the desired length, remove needle, make sure there are not gaps along the thread, and tie both ends together. Trim ends of string closer to blossom. Share your lei with aloha!



Activity Sources:

<https://www.mauimagazine.net/instructions-how-to-make-a-lei/>

<http://www.plumeria101.com/lei.html>

‘Ono Healthy Recipe

Enjoy this ‘ono ‘Uhaloa Tea recipe with your ‘ohana at home.

Due to its health benefits, many people drink ‘uhaloa tea to fight off sickness (common cold) or when they feel a tickle in their throat.

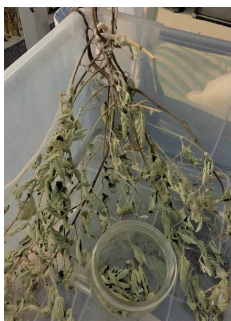
Ingredients

- Fresh ‘uhaloa leaves (can also used dried ‘uhaloa leaves)
- Water
- Pot
- Lemon (optional - to taste)
- Honey (optional - to taste)

Instructions

- Gather a couple of handfuls of ‘uhaloa leaves (the more leaves you use, the stronger the tea will be). Rinse off any dirt or pests.
- Boil 4 cups of water and turn heat off.
- Add leaves to hot water and steep leaves with lid on for about 10 minutes.
*If you want to mix flavors, simmer other herbs like ginger, lemongrass, or mamaki for about half an hour and then steep ‘uhaloa in that tea for 10 minutes.
- Strain ‘uhaloa.
- Add some honey or squeeze of lemon to add more flavor to tea.
- Enjoy!

Note: Always know where your ‘uhaloa comes from and where it was grown prior to consuming it. We recommend doing your own research before consuming food or trying new ingredients as this recipe may not be suitable for everyone.



Recipe Source: Tasia Yamamura (UH West O‘ahu)

Photo Source: Jewelynn Kirkland (Teacher & Nānākuli Resident)

Weekly Mahalos!

Write or draw three things you're thankful for this week:

1.

2.

3.

Olakino (Healthy Body)

Here are some reminders to keep you and your 'ohana safe & healthy during the health crisis we are facing with COVID-19:

- Drink lots of wai (water) to stay hydrated.
- Be active. Work your muscles!
- Get a good night's rest everyday.
- Eat well. Limit fast foods that are high in fat and sugar.
- Wash your hands with soap frequently for at least 20 seconds.
- Avoid touching your face (eyes, nose, mouth).
- Clean and disinfect frequently touched objects and surfaces.
- Avoid hugs, handholding, and handshakes. Give the shaka!
- Spread aloha always.

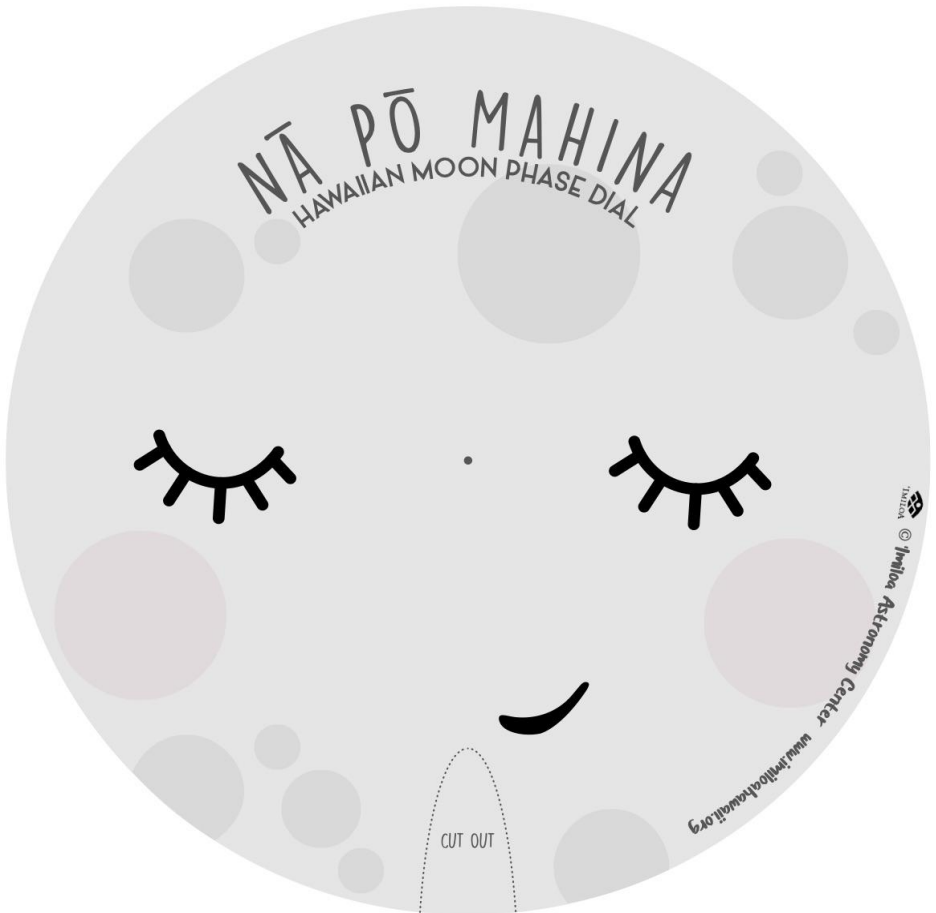
What else can you do to keep your 'ohana safe and healthy?



Did you know? Rat Lungworm Disease can easily be prevented by thoroughly washing your fresh produce, not drinking from outdoor faucets/hoses, and by not touching snails with your bare hands. **ALWAYS THOROUGHLY WASH YOUR FRESH PRODUCE & HANDS BEFORE EATING!**

‘Ohana Activity

Nā Pō Mahina (Hawaiian Moon Phase Dial)



NĀ PŌ MAHINA

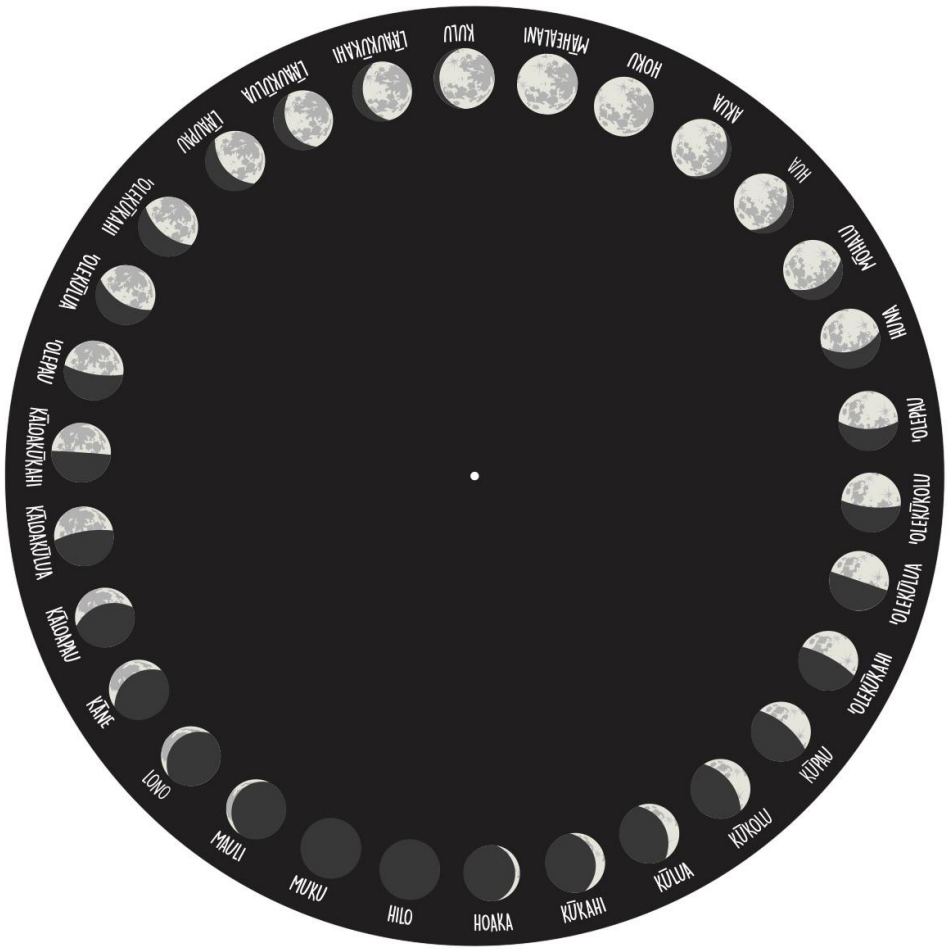
From the time of our ancestors (kūpuna), Hawaiians have observed the moon (Mahina), given names to 30 different phases, and paid close attention to how those phases relate to the land (‘āina), the ocean (kai), and the people (kanaka). Through astute observations, they learned which moon phases offer the best times for different activities, like fishing, farming, building or performing celebrations and religious ceremonies. In this way they were better able to assure abundance, bounty and sustainability. Create your own Hawaiian Moon Calendar (Nā Pō Mahina) and make your own observations!

Create a Hawaiian Moon Phase Dial and use it to determine what moon phase we are currently in.

Activity Source: ‘Imiloa Astronomy Center
<https://imiloahawaii.org>

‘Ohana Activity

Nā Pō Mahina (Hawaiian Moon Phase Dial)



MATERIALS NEEDED

-  SCISSORS
-  1 BRAD (METAL FASTENER)
-  2 SHEETS OF CARD STOCK
-  1 PUSH PIN

INSTRUCTIONS

1. Print both circles on cardstock and cut out along the outer edges. Then cut out the little window as indicated on the white moon face image.
2. Use a push pin to make a pilot hole in the center of each circle (on center dots).
3. Place the white moon face circle on top of the black circle, push a brad through both circles, and open the prongs to fasten the two circles on the back.
4. Now you are ready to spin the top circle counter-clockwise and view the 30 different moon phases, one by one.

*Instructional video for this activity can be found at:

<https://imiloahawaii.org/mahina>

Share Your Progress!

Mahalo for completing our Aloha 'Āina Packet! We hope you enjoyed the activities! Please share your progress with us by taking photos of anything you'd like to share and posting to your social media (tag us). Or send your photos directly to us through email. We would love to see how you're doing! We plan to make weekly packets with different activities until the end of your school year.

Mālama Learning Center

Social Media: #malamalearning #malamalearningcenter

**Hashtags for this project: #alohaainapacket
#growingseedsintimesofneed**

Email: info@malamalearningcenter.org



Mālama
Learning
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Mālama Learning Center is a private non-profit organization in West O'ahu that brings art, science, conservation, and culture together to promote sustainable living throughout Hawai'i.

www.malamalearningcenter.org

Mahalo Nui Loa to Corteva agriscience for providing a donation to assist in producing the Aloha 'Āina Packets!



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