# Mālama i nā 'Īlioholoikauaua

(to care for the Hawaiian monk seals)

Get inspired by solutions that are sustainable for humans and animals alike.

# A sustainable past and present

Sustainability has been a part of native Hawaiian culture for a long time. For centuries, native Hawaiian people have used traditions and fishing methods like throwing net, ahupua'a and fish ponds, and barbless hooks that are kind to the 'āina and leave plenty of fish for the future. They carry on this sustainable spirit today, but are joined by lots of newer groups that bring different technologies and perspectives to the table. One of those groups is the Natural Energy Labs of Hawaii Authority (NELHA), home to Ke Kai Ola (The Healing Sea), The Marine Mammal Center's hospital dedicated to caring for the endangered Hawaiian monk seal.

To really appreciate the long history of sustainability in Hawai'i, we asked some of our many partners to help tell the story of some uniquely Hawaiian sustainable innovations in this video. You'll learn more about traditional Hawaiian fishing methods and the work done by our partners at NELHA too. Listen carefully and see if you can pick up any new sustainable actions that can help you care for the ocean in your daily life.

## Sustainability in action

NELHA is a demonstration site for emerging renewable and ocean-based technologies. It provides space and resources to environmentally and culturally responsible ocean-related businesses and even a school! NELHA supports us by using their infrastructure to source ocean water for the pools at Ke Kai Ola. NELHA is also home to businesses like Kampachi Farms, Kona Cold Lobster, and Blue Ocean Mariculture, which raise sustainable seafood in the ocean and on land. Sometimes these businesses donate seafood to Ke Kai Ola so we can feed patients like monk seal pup 'Ākulikuli. 'Ākulikuli was malnourished when he arrived at Ke Kai Ola, but after putting on weight and gaining confidence, he became quite cheeky and started teasing his pen-mates! After careful rehabilitation by our trained staff and volunteers, 'Ākulikuli was released back to the remote Northwestern Hawaiian Islands.

These islands are home to almost the entire monk seal population, including Maka Kilo, a pup rescued due to malnutrition. You can see Maka Kilo hunting sustainable kampachi, donated by our partners Kampachi Farms, in this video. Do you notice any special behaviors he uses to catch his prey? You can also watch Leimana, another monk seal pup, hunting a sustainable lobster from Kona Cold Lobster <a href="https://exampachi.org/hemzen/he

### Create your own sustainable seafood!

The Hawaiian environment is incredibly unique, and we're grateful our sustainable seafood partners at NELHA help us feed our monk seals patients so many of the different species found



in their local habitats. Now it's time for *you* to make some sustainable seafood critters using materials from *your* natural habitat: your home!

# Clay wana (sea urchin)

Wana are found all over Hawaii. These spikey critters are super easy to make, so give it a go!

#### Materials:

- Clay, play-doh or a styrofoam ball
- Toothpicks or anything pokey

#### Instructions:

- 1. Make a ball out of clay or grab a styrofoam ball or something else round.
- 2. If using clay, tap the ball on the table to flatten it so your sea urchin stays put!
- 3. Poke lots of toothpicks into the ball. The more toothpicks, the spikier your wana will be!
- 4. Repeat with different colors and sizes so you have an ecosystem of different wana!







## Toilet roll he'e (octopus)

Our partners in Hawaii helped us get *he'e* to feed our Hawaiian monk seal patients, but we could always use more! Follow the directions below to make your own octopus friend.

## Materials:

- Toilet paper rolls
- Scissors
- Hole punch (optional, you can cut holes with scissors instead)
- Coloring supplies
- Yarn, floss, ribbon or string

#### *Instructions:*

- 1. Make 4 slits on one end of a toilet paper roll.
- 2. Fold the four sides on top of each other to close one end of the roll.
- 3. Punch or cut holes around the other end. This is where you'll attach the tentacles later!



- 4. Decorate the tube however you like. You can add eyes, a smile, even dimples!
- 5. Wrap yarn through the holes at the bottom of the roll. Your octopus has tentacles now!
- 6. If you punch a hole in the top and tie string through it, you can add a handle so you can carry around your new friend!







# Origami i'a (fish)

Create an origami fish and decorate it to look like your favorite species! You can use Seafood Watch for decoration inspiration or to find a sustainable fish. Check out our <u>other activities</u> to learn more about this awesome program!

#### Materials:

Square pieces of paper

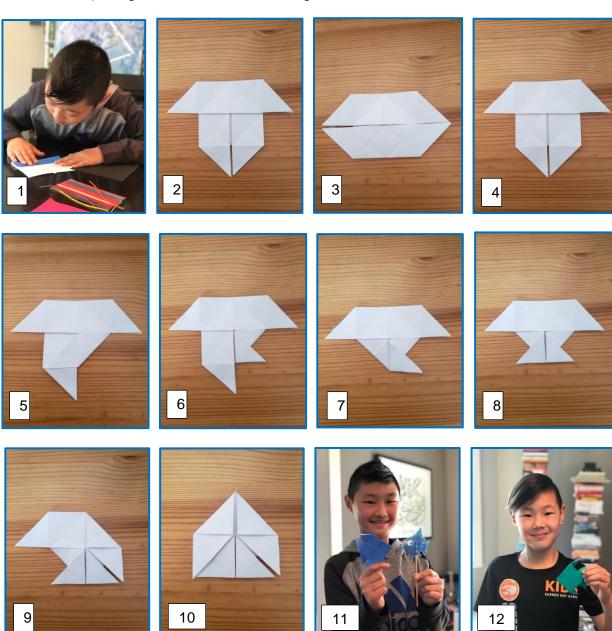
Coloring supplies

#### Instructions:

- 1. Fold a square piece of paper in half.
- 2. Unfold it and fold it in half the other way so your creases make an plus on your paper.
- 3. Unfold it and fold opposite sides to the middle crease. Do this to all 4 sides. (Picture 1)
- 4. Unfold again. Your creases should make 16 little squares on your paper.
- 5. Fold in half diagonally. Make a sharp fold only on the outermost little square on each side. You don't have to press down on the middle of the crease!
- 6. Unfold and fold in half diagonally the other way so the creases make an x on your paper. Again, only make a sharp crease on the outermost little squares on each side.
- 7. Unfold. Your new creases should make a medium square in the middle of your paper.
- 8. Fold two sides to the middle, like Step 3, so you have a rectangle with a flap facing up.
- 9. Take one short end of the rectangle. Fold the first little square to the center, but push out the sides along the fold so they form a triangle on each side. (Picture 2)
- 10. Repeat with the other side. You should have a shape that looks like the medium square with two triangles on the side. (Picture 3)
- 11. Flip the paper so the fold is horizontal.
- 12. Fold the triangles under the fold down and to the middle, so they point down. (Picture 4)



- 13. Fold the right side to the middle. This will make it poke over the left side. (Picture 5) Take the tip that's poking to the left and fold it back to the right. (Picture 6)
- 14. Fold the left side to the middle. It should poke perfectly over the right side. (Picture 7)
- 15. Take the tip that's pointing to the right and fold it back to the left so both sides match. (Picture 8) It's the tail of your fish!
- 16. Above the fold, you should have a rectangle with a triangle on either side. Fold the right side of the rectangle down and to the middle. (Picture 9)
- 17. Fold the left side of the rectangle down and to the middle. (Picture 10)
- 18. Flip the paper over and you should have a fish with front and back flippers! (Pictures 11 and 12) Congratulations, that was a tough one!





# Sustainable Fishing Hawaiian Word Glossary

Learning Hawaiian words about sustainable fishing is a fun way to honor native Hawaiian culture and the many ways they *mālama* the *'āina* (care for the land). Try your best to sound out the words below and don't be afraid to use the pronunciation guide if you need a hand!

But wait, these translations are all mixed up! Once you've got the hang of pronunciation, pair the Hawaiian words with their English translation by drawing a line between them. We gave you a few freebies to get the ball rolling. Check out the answer key if you get stuck!

pono (po-no) gill net pono'ole (po-no-oh-lay) sea urchin ho'opono (hoe-oh-po-no) fishhook mālama (ma-lah-ma) barbed hook ahupua'a (a-who-poo-ah-ah) canoe lawai'a (la-vah-ee-a) land division extending from the uplands to the sea fish makau (ma-kah-oo) 'ōmau (o-ma-oo) to take care of, preserve, protect kohe lua (ko-hay loo-ah) octopus 'upena kiloi (oo-pen-ah kee-low-ee) unjust, unrighteous, wrong 'upena ku'u (oo-pen-ah koo-oo) sea cucumber aho (ah-hoe) goodness, correct or proper procedure wa'a (vah-ah) to behave correctly to fish wana (vah-nah) he'e (hay-a) barbless hook i'a (ee-ah) throw net loli (low-lee) fishing line

