



Makani

Ka Mōlī Mālama 'Āina

Makani: The albatross that cares for the land

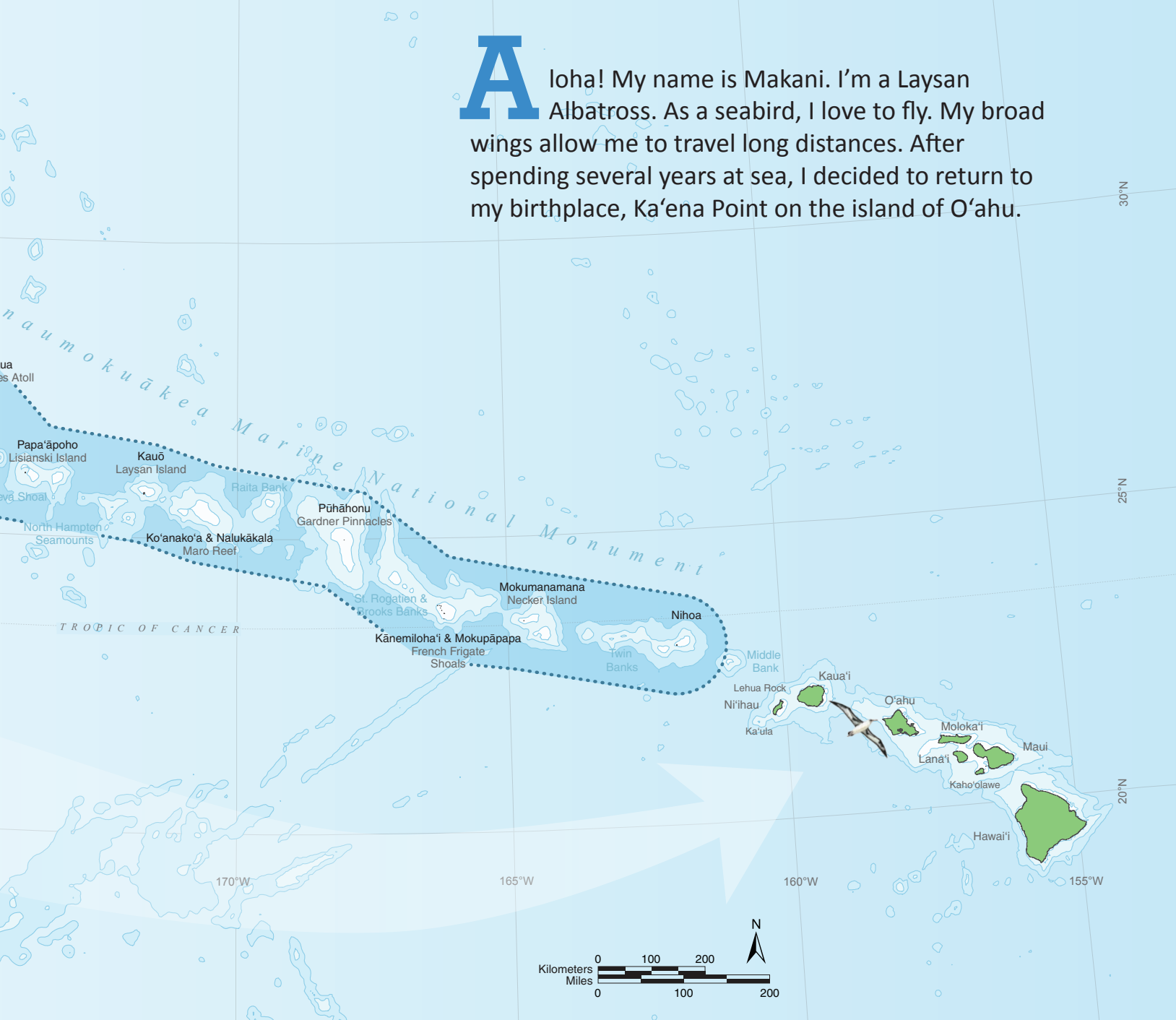
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and

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Illustrated by Rena Ekmanis



Aloha! 'O au 'o Makani a he mōlī au. 'Oiai he manukai au, ua ma'a au i ka lele 'ana i nā wahi mamao loa. 'O ko'u anana 'ēheu nui loa ka mea e hiki ai ia'u ke lele i ia mau wahi mamao loa. Ma hope o nā makahiki he nui me ka 'ike 'ole i wahi 'āpana 'āina, ua 'īini au e ho'i i ku'u one hānau ma Ka'ena ma O'ahu o Kakuhihewa nei.

Aloha! My name is Makani. I'm a Laysan Albatross. As a seabird, I love to fly. My broad wings allow me to travel long distances. After spending several years at sea, I decided to return to my birthplace, Ka'ena Point on the island of O'ahu.



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Measure Your Wingspan

The average wingspan of a Laysan Albatross is 7 feet (84 inches). Using the ruler on the edge of this page, have a friend help you measure your wingspan.

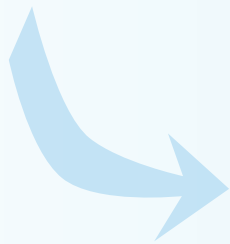


Distance Traveled

1 A Laysan Albatross in Hawai'i travels to Alaska to find food. If the bird's average flight speed is 30 miles per hour and the distance between Hawai'i and Alaska is 3,000 miles, how long will the journey take?

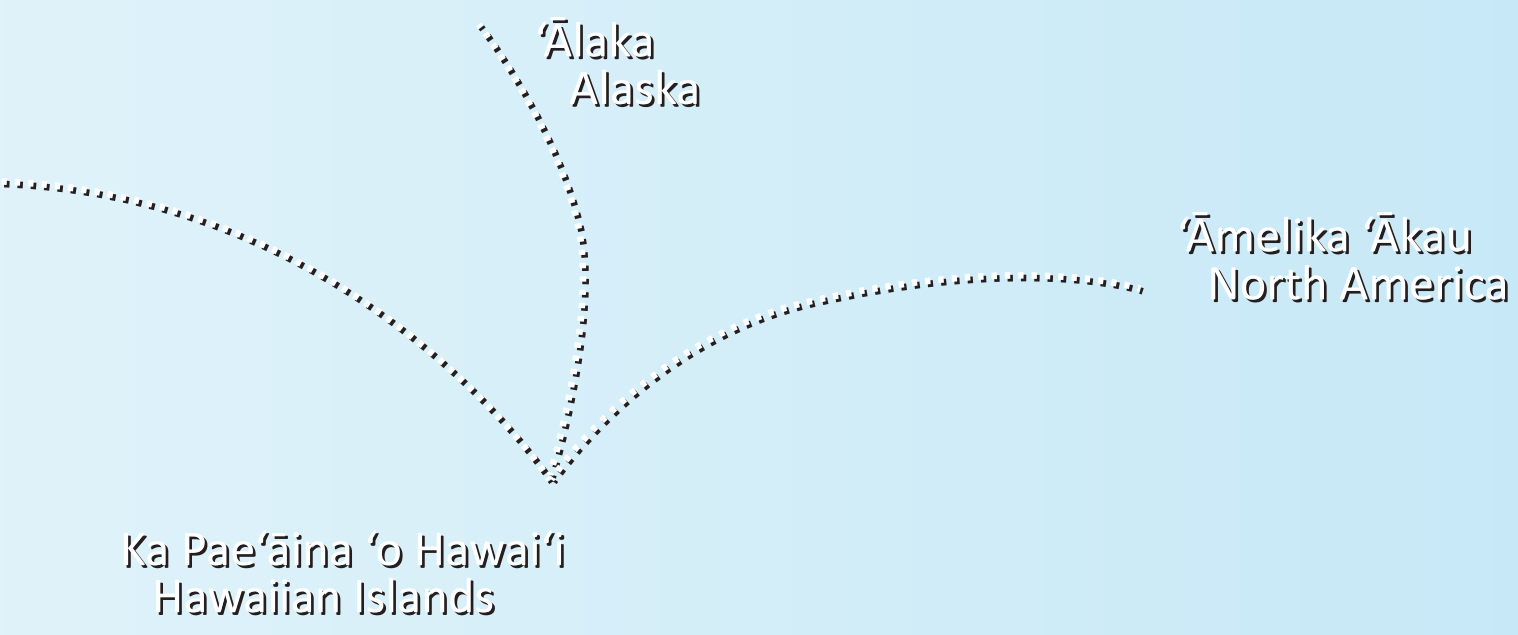
2 A Laysan Albatross in Hawai'i travels to Japan to find food. If the bird's average flight speed is 30 miles per hour and the distance between Hawai'i and Japan is 4,200 miles, how long will the journey take?

3 A Laysan Albatross in Hawai'i travels to North America to find food. If the bird's average flight speed is 30 miles per hour and the distance between Hawai'i and North America is 2,430 miles, how long will the journey take?



lapana
Japan

Ka Pākīpika
Pacific Ocean



Ālaka
Alaska

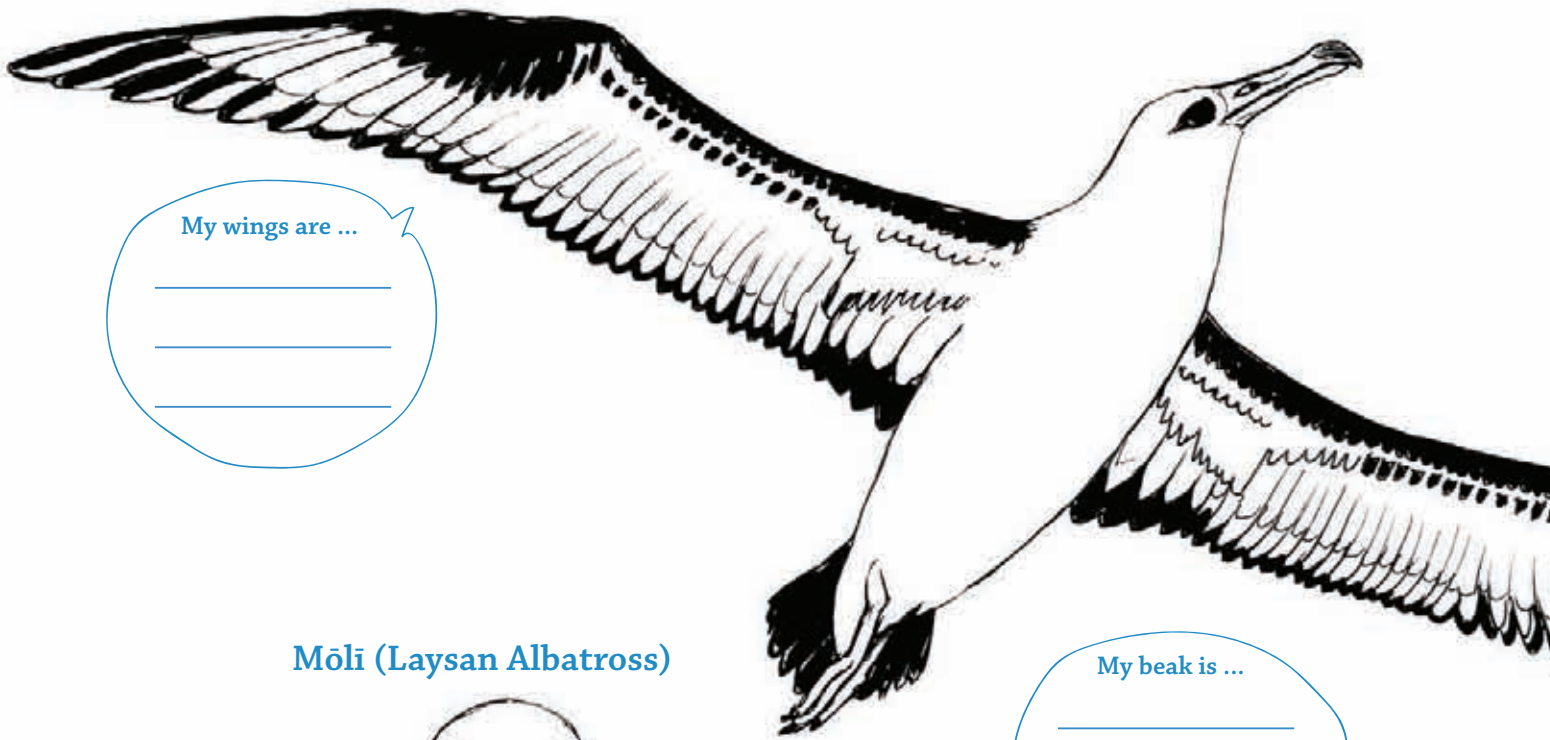
Āmelika 'Ākau
North America

Ka Pae'āina 'o Hawai'i
Hawaiian Islands

Ma 'ane'i, ma Ka'ena nō ko'u launa mua 'ana me ku'u ipo aloha 'o Manukea. Ma lanuali, ua lilo māua i mau mākua. I kekahi manawa, hele 'o Manukea a 'imi i hua i'a, mūhe'e, a pēlā wale aku e hānai ai i kā māua keiki. Ke ho'i mai 'o ia, kuapo a na'u e hele i kai a 'imi i mea'ai nāna.

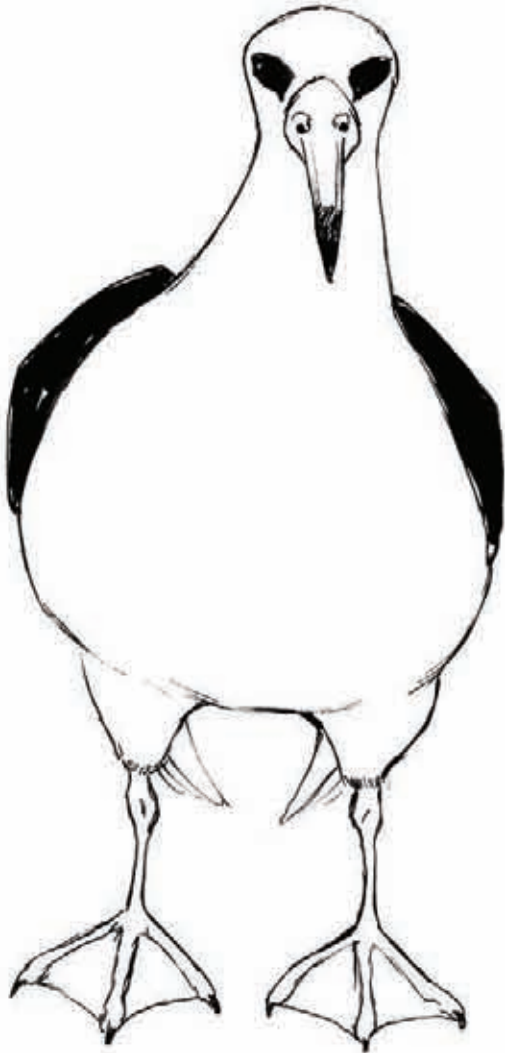
It was here at Ka'ena where I met my soul mate, Manukea. In January, we became proud parents. We take turns going out to sea to hunt for fish eggs, squid, and crustaceans to feed our chick.





My wings are ...

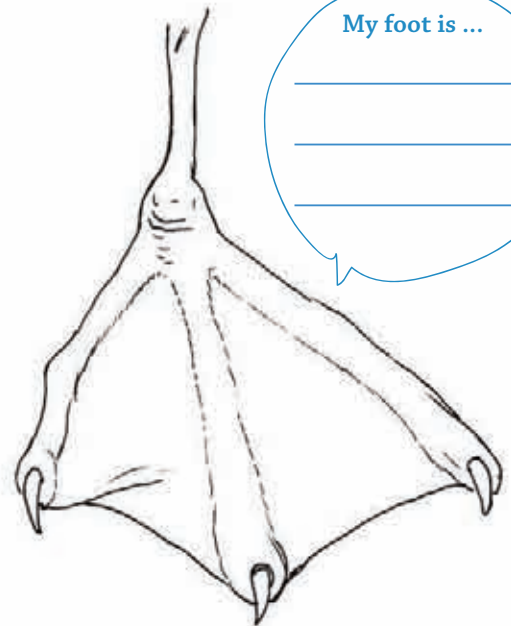
Mōli (Laysan Albatross)



My beak is ...



My foot is ...



Compare & Contrast



My wings are ...

My beak is ...

Pueo (Hawaiian Owl)



My foot is ...

Observation

Compare the anatomy of the Laysan Albatross and Hawaiian Owl. Why do you think these differences exist? Please write down your observations and conclusions.

No nā hanauna he nui, 'o Ka'ena kahi e noho ai ko'u 'ohana. Ma 'ane'i nō au i lele mua a'e ai. Ua nui nā holoholona a me nā meakanu kūikawā ma 'ane'i. Hiki ke 'ike 'ia nā 'īlioholoikauaua a me nā honu ma ke one e lala ana i ka lā.

'O ku'u mau hoa manu 'ē a'e, he 'iwa, he 'ā, a he 'ua'u kani, hiki ke 'ike 'ia lākou e kīkaha ana ma luna o nā pali ki'eki'e. Ma ka hā'ulelau, ua hiki ke 'ike 'ia nā koholā kuapi'o e ho'onanea ana i ke kai mehana a e lele ana i 'ō a i 'ane'i. 'O ka hapanui o nā meakanu i malu mai ai au i ko'u wā kamali'i, 'a'ole i loa'a iki ma kekahi wahi ma ka honua holo'oko'a.

For generations, my family has called Ka'ena Point home. This is where I learned to fly. Unique animals and plants inhabit this place. Monk seals and green sea turtles lie on the golden beach basking in the sun.

My feathery friends at Ka'ena Point are the Frigate bird, Brown Booby, and Wedge-tailed Shearwater who soar high across the cliffs. During the winter months, humpback whales can be seen offshore enjoying the warm tropical waters and performing aerial displays. Many of the plants that gave me shelter as a fledgling can be found nowhere else on the planet.

Coastal Restoration

Planting native plants along the coast helps to prevent erosion and create nesting areas for birds. Help restore this coastal scene by drawing the native plants pictured here.

Naupaka



Scaevola sericea

'Ōhai



Sesbania tomentosa

Naio

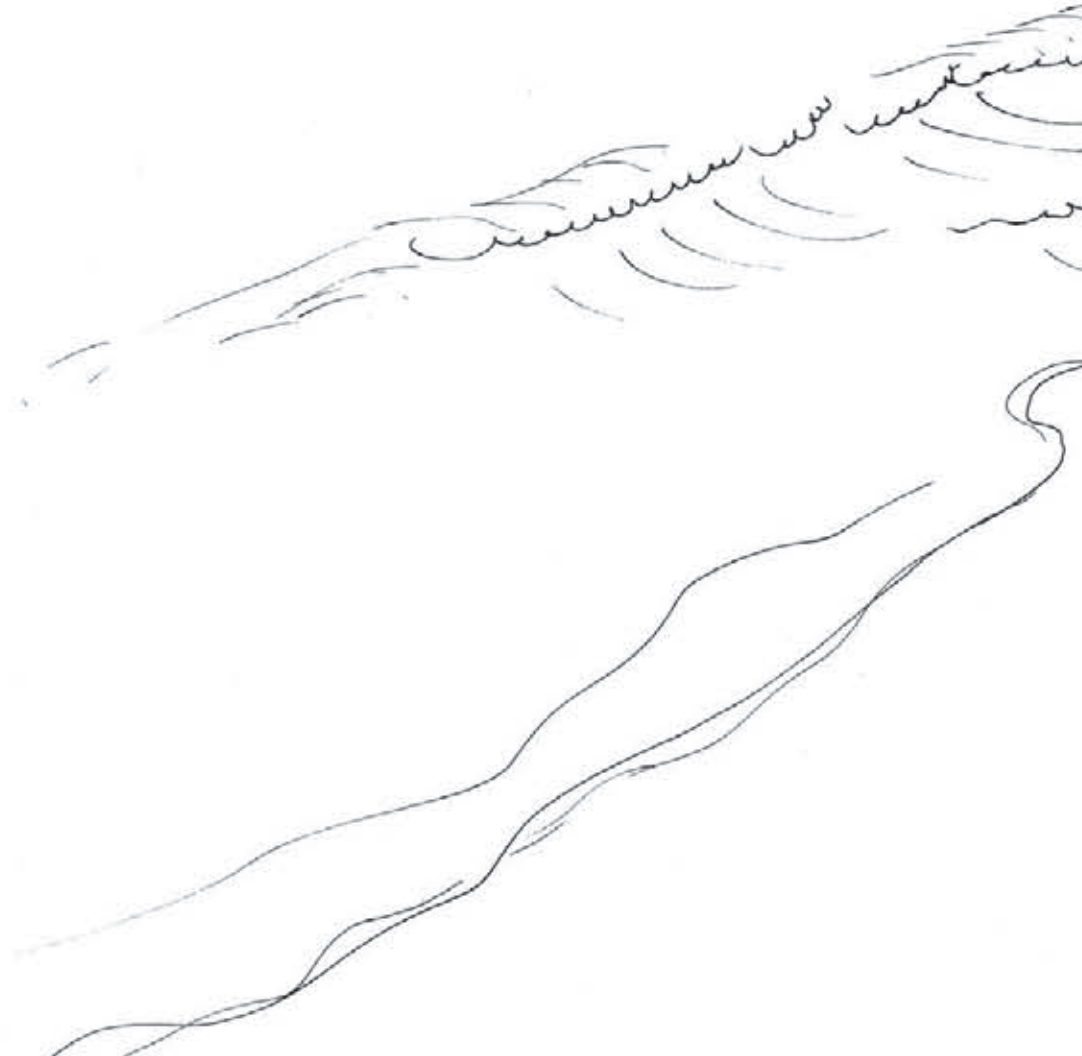


Myoporum sandwicense

'Ilima



Sida fallax







Wahi a nā mo'olelo kahiko i ho'oili 'ia iho mai nā kūpuna mai, ua huaka'i nā kānaka mua i kēia 'āina 'o Hawai'i ma luna o nā wa'a kaulua me nā pe'a i ulana 'ia. Ua ho'okele lākou ma o ke kilo 'ana i ka lā, ka mahina, nā hōkū a me nā 'ale.

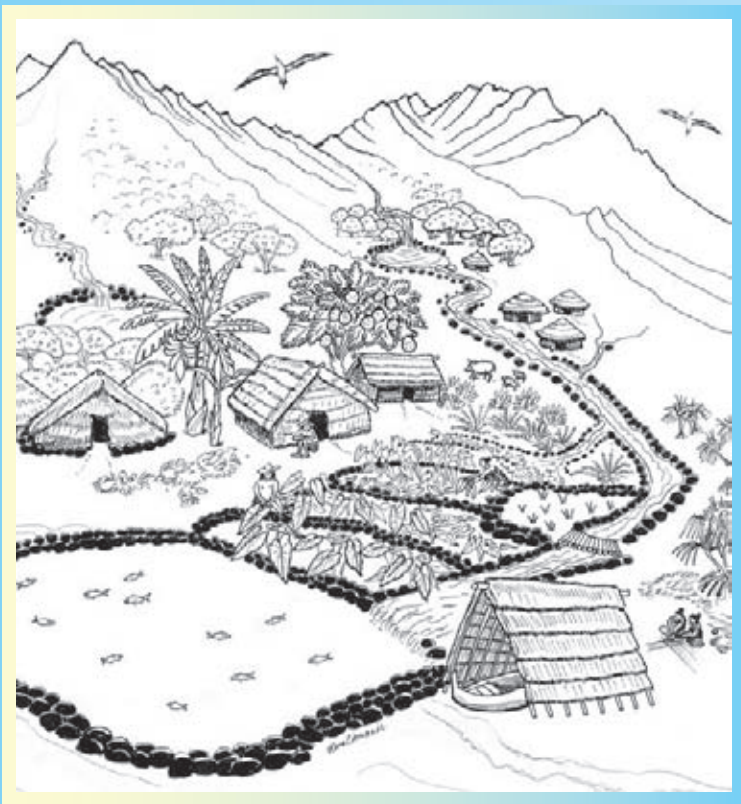
I mea e pakele ai lākou ma ia huaka'i mamao a pa'akikī, ua lōkahi nā kānaka a pau ma ka wa'a a ua ka'analike ho'i lākou i nā kumuwaiwai kāka'ikahi. 'O kēia mau ha'awina i a'o 'ia ma ia huaka'i 'ana, 'a'ole nō i waiho 'ia ma ka wa'a i ka pae 'ana mai i Hawai'i nei. Ua ho'ohana 'ia nō i loko o ko lākou noho 'ana ma kēia mau mokupuni.



Stories passed down from my ancestors speak of the first people who arrived in this land many years ago. They traveled on large double-hulled canoes with hand-woven sails and navigated the open ocean by observing the sun, moon, stars and waves.

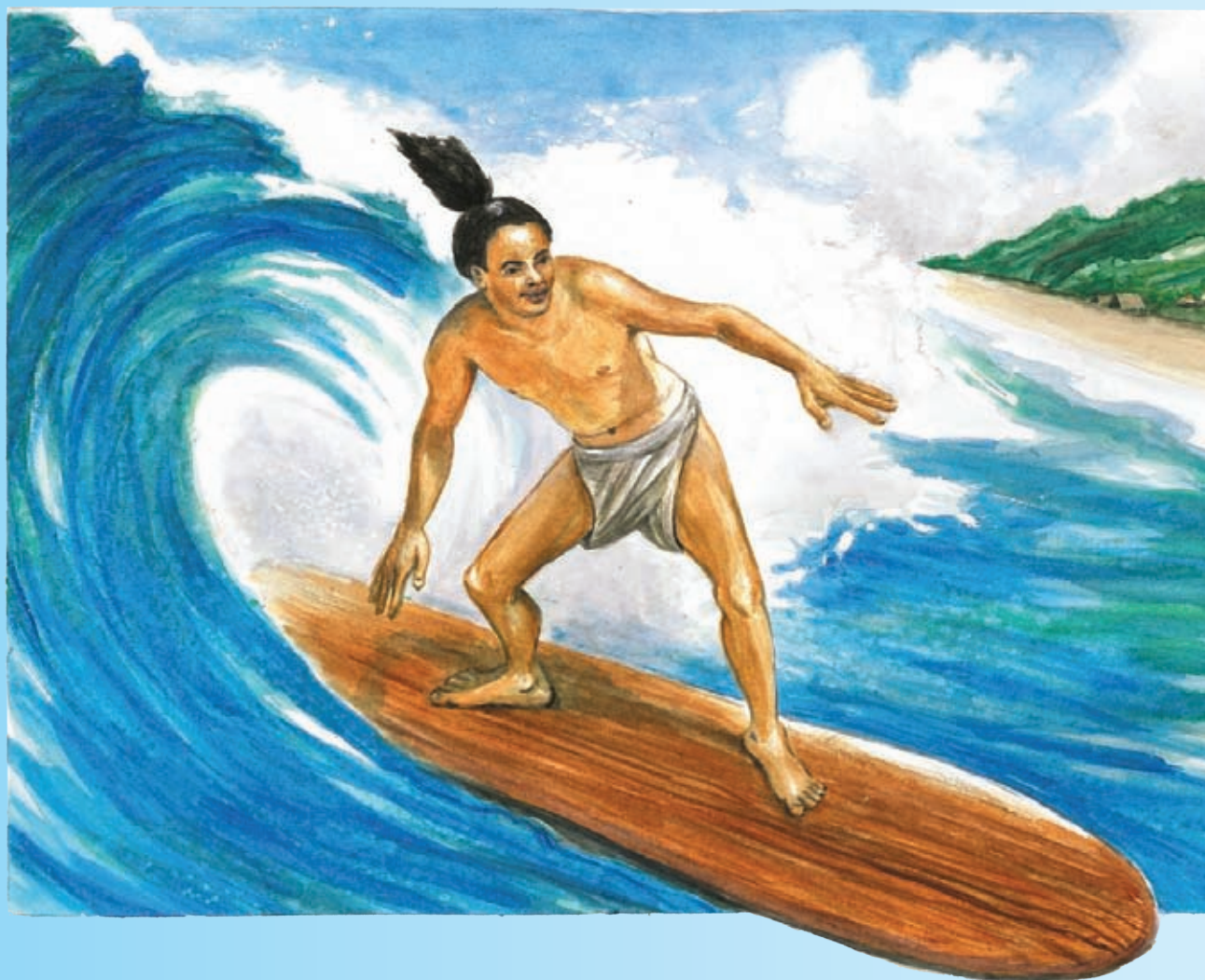
In order to survive the long and arduous journey to the islands, the crewmembers worked together as a team and shared the limited resources onboard the canoe. These lessons and values were not left at sea but applied to this new land they called home.





‘O ka wai kahi waiwai ko‘iko‘i loa ma ka huaka‘i ‘ana ma ka wa‘a a pēlā pū ma nā kūlanakauhale Hawai‘i. No ka mālama ‘ana i kēia waiwai ko‘iko‘i loa, ua kālai ‘ia ka ‘āina i mau ahupua‘a. ‘O ka ma‘amau, ho‘omaka ke ahupua‘a i uka a hiki i ke kai. ‘O nā kahawai a me nā pūnāwai ka mea e ola mau ai nā kānaka o nā ahupua‘a a pau.

Ua ho‘ohana ‘ia ka wai o nā kahawai ma nā lo‘i kalo. Ma waho o ke kanu ‘ana i ke kalo, ka ‘uala, ka ‘ulu a me ka mai‘a, ua kūkulu nā Hawai‘i i mau loko i‘a. Ua ho‘ohana ‘ia nā pōhaku, meakanu, iwi, a me nā ko‘a no ka hana ‘ana i nā pono hana a me nā mea pā‘ani. Ua puni nā kānaka i ka he‘enalu a me ka he‘e hōlua.



Fresh water was the most valuable resource on the canoe and in the villages. In order to manage this precious resource, they divided the land into ahupua'a, wedges that ran from mauka (mountain) to makai (sea). The lifelines of the communities were the streams that fed into the lo'i kalo (taro farm) and provided clean drinking water.

In addition to growing taro, sweet potato, breadfruit and bananas, the people constructed loko i'a (fish pond) to cultivate fresh fish. Tools were crafted from stone, plants, bone, and coral. Toys were also crafted and when time permitted, wooden surfboards could be seen gliding across the waves while slender sleds slipped on leaves down the sides of mountains.

Hawaiian Values

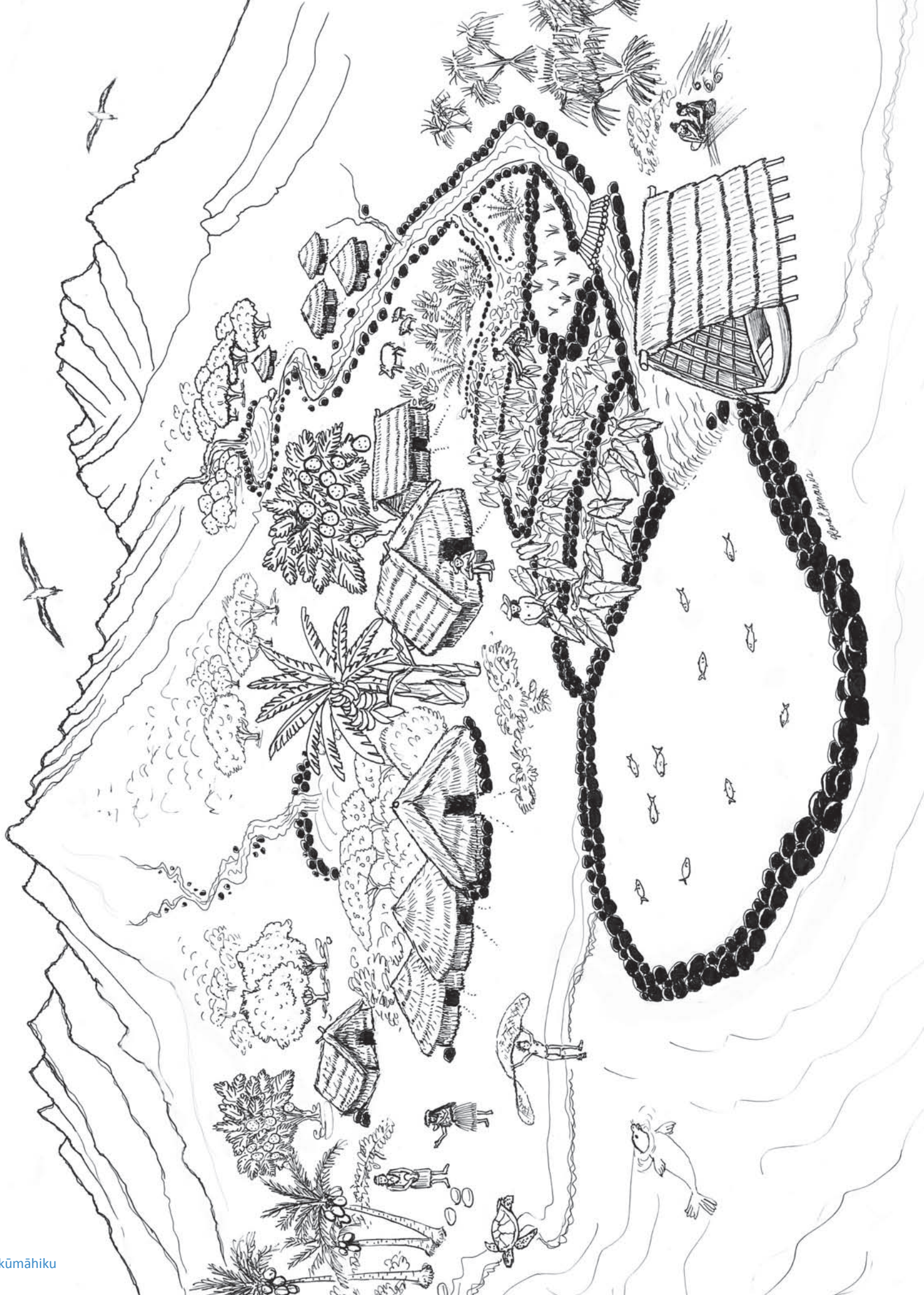
Below is a list of Hawaiian values that were important both on land and at sea. Choose two values from the list and explain why they are important in your life.

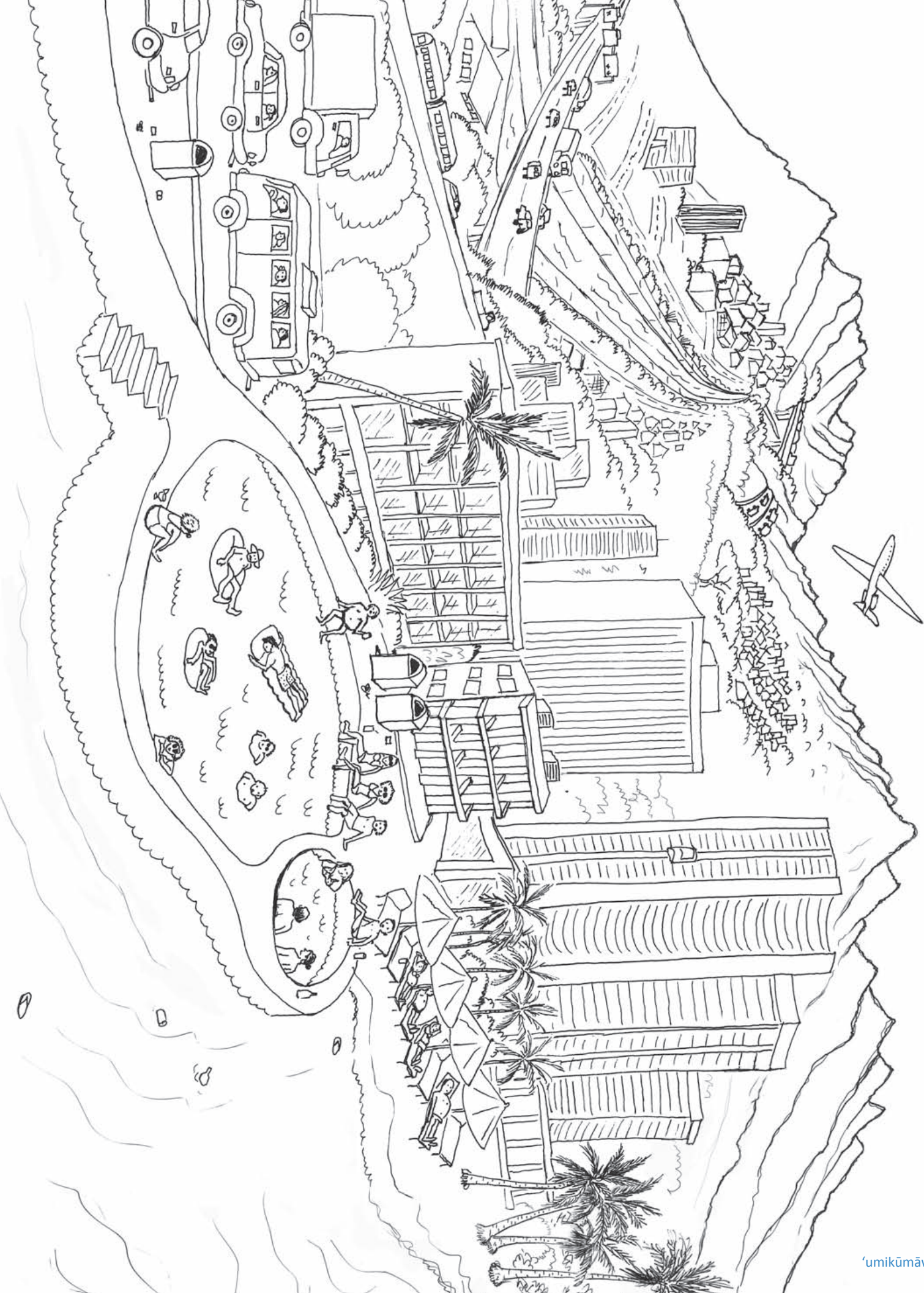
- Aloha: Love and Respect
- Pono: Correctness and Fairness
- Laulima: Cooperation
- Kuleana: Responsibility
- Kokua: Helpfulness
- Ho'omau: Perseverance
- Mālama: Care for
- Ha'aha'a: Humility

Land Management

How does the Hawaiian ahupua'a system compare with modern city scapes? Look at the two drawings on the next pages and compare and contrast how the land is used.







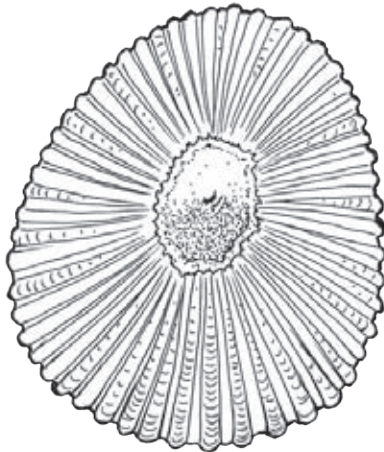
‘O ko‘a nā pono hana kahiko mai nā pono hana o kēia au. Ma mua, ua hana ‘ia nā pono hana a pau me nā mea o ke ao kūlohelohe. I kēia au, ho‘ohana ‘ia nā mea maika‘i ‘ole no ka honua e like me ka ‘ea. Lana ka ‘ea ma ka ‘ilikai a kohu i‘a ia. ‘Ai nā manu i ka ‘ea me ka mana‘o he i‘a ia a i ka hapanui o nā manawa, pau ka manu i ka nui loa o ka ‘ea i ‘ai ‘ia. ‘O kekahi o ko‘u mau hoa, hele a pa‘a ma nā aho a me nā ‘upena e lana i ke kai.

Today the tools have changed. The natural objects that posed no threat have been replaced by materials that never turn back into earth. In the ocean these new tools, bright and colorful, are mistaken for fish and squid and end up in the bellies of our families. Our friends have been trapped by invisible lines and tangled in ropes drifting in currents for years and years.

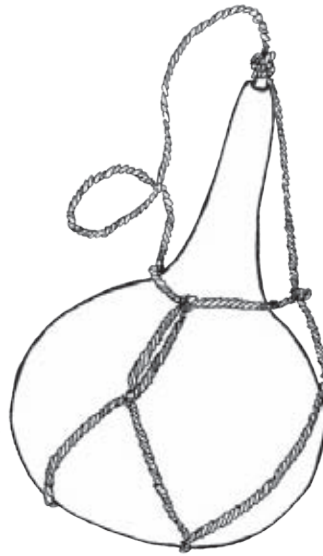


Object Comparison

Match each Hawaiian object with its modern counterpart/equivalent.
Can you guess what each object is made from?



made from



made from



Ti leaf

made from



made from



made from



made from



made from



Rubber

made from



made from



made from

MARINE DEBRIS TALLY SHEET - Hawai'i

Directions: Complete this form during each survey. Fill out both sides. Please write legibly.

Organization:	
Surveyor/Data collector name:	
Phone number:	()
Email address:	

DATE (month/date/year):	
START TIME:	
END TIME:	

SHORELINE LOCATION INFORMATION				
Shoreline/Beach name:				
City and State:				
GPS coordinates at START of survey/cleanup area:	Latitude:		Longitude:	
GPS coordinates at END of survey/cleanup area:	Latitude:		Longitude:	
Width of shoreline (meters): <i>(from waters edge to the back of shoreline)</i>				meters

OTHER INFORMATION		
Date of last survey of this area (if known):		
Storm activity within the last week? (circle one)	Y	N
If yes , please list dates and description.		
Current weather (% cloud coverage, wind speed)		

NUMBER OF PARTICIPANTS:		
PHOTOS TAKEN? (circle one)	Y	N
<i>If photos can be shared with the NOAA Marine Debris Program, please contact MD.monitoring@noaa.gov.</i>		

MARINE DEBRIS TALLY SHEET - Hawai'i

Directions: Use tick marks to tally debris items larger than 2.5 cm, or about the size of a bottle cap. Total the amount and write in the # of pieces column for each item.

Date: _____

Location: _____

Data Collector: _____

Item	# of pieces (Tally (e.g.,) and Total)	Comments
PLASTICS		
Plastic fragments (Hard)		
Plastic fragments (Foamed)		
Plastic fragments (Film)		
Food wrappers		
Beverage bottles		
Other jugs or containers		
Bottle or container caps		
Cigar tips		
Cigarettes/Filters		
Disposable cigarette lighters		
6-pack rings		
Bags		
Plastic rope/small net pieces		
Buoys and floats		
Fishing lures and line		
Cups (including foamed)		
Plastic utensils		
Straws		
Balloons		
Personal care products		
Plastic toys		
Other item (not listed above; please specify)		

METAL		
Aluminum/tin cans		
Aerosol cans		
Metal fragments		
Other item (not listed above; please specify)		

OTHER NOTABLE ITEMS		

Item	# of pieces	Comments
GLASS		
Beverage bottles		
Jars		
Glass fragments		
Other item (not listed above; please specify)		

RUBBER		
Flip-flops/slippers		
Gloves		
Tires		
Rubber fragments		
Other item (not listed above; please specify)		

PROCESSED LUMBER		
Cardboard cartons		
Paper and cardboard		
Paper bags		
Lumber/building material		
Other item (not listed above; please specify)		

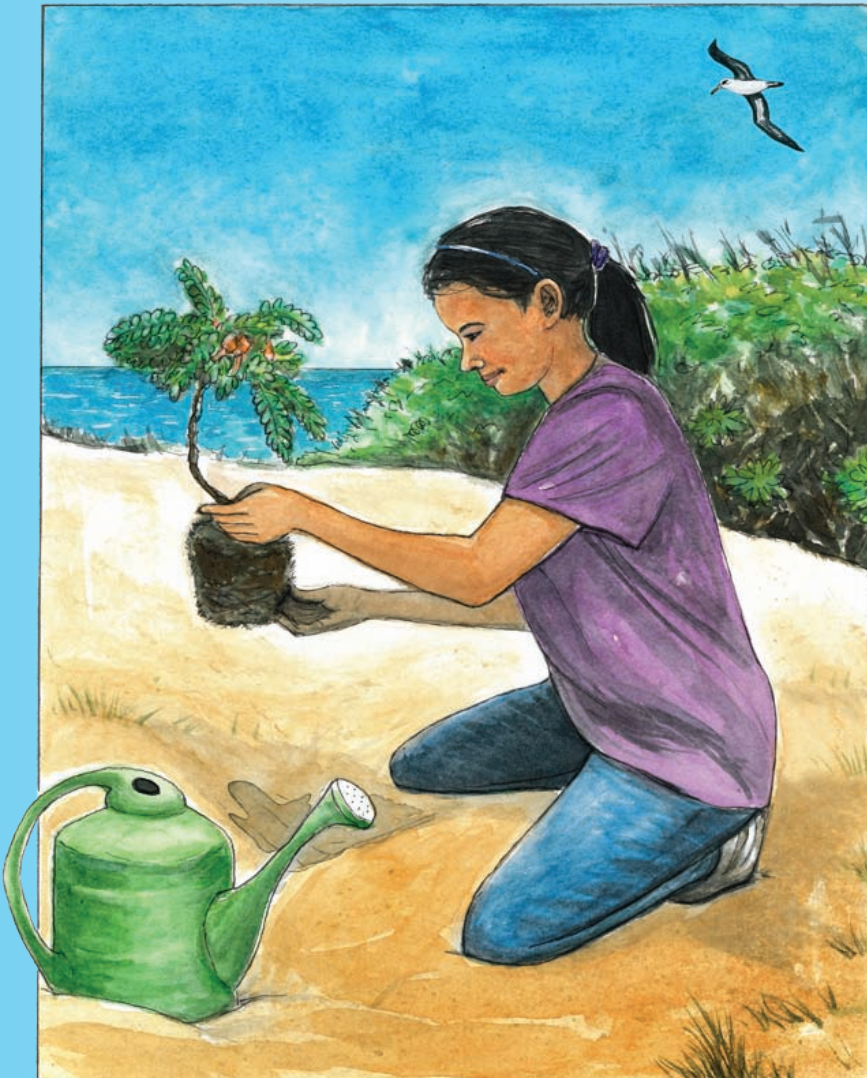
CLOTH/FABRIC		
Clothing and shoes		
Gloves (non-rubber)		
Towels/rags		
Rope/net pieces (non-nylon)		
Fabric pieces		
Other item (not listed above; please specify)		

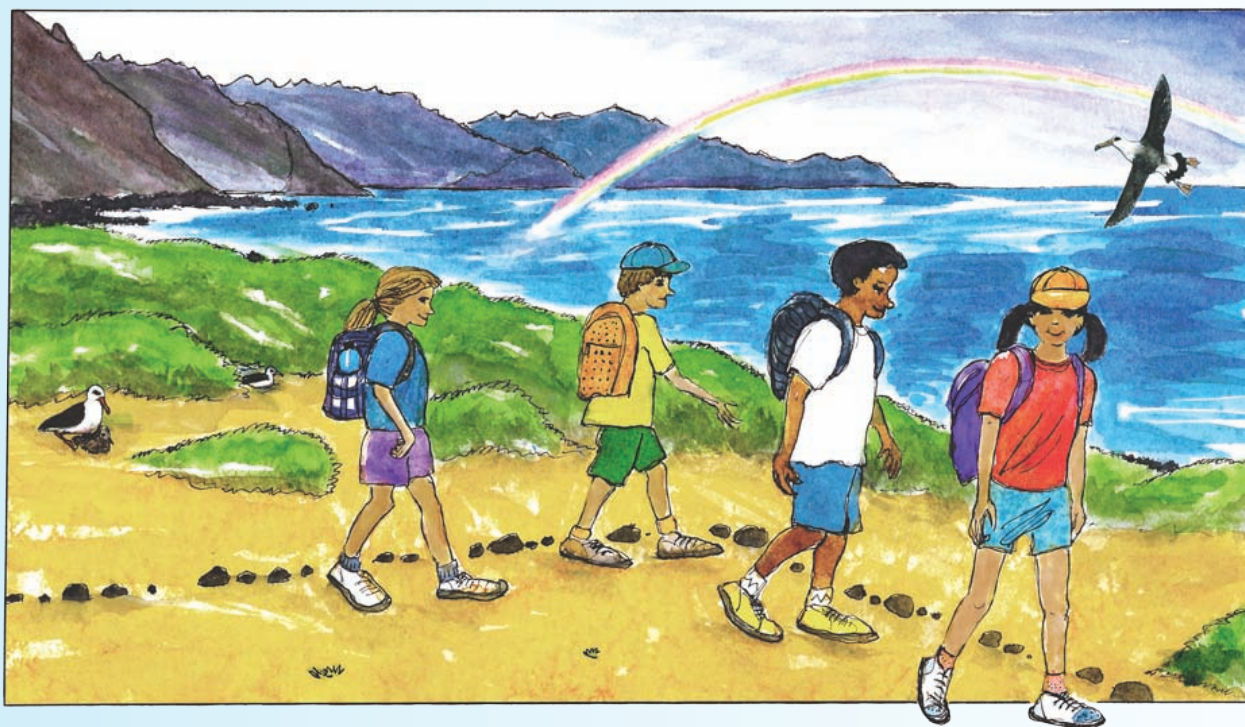
OTHER NOTABLE ITEMS		

LARGE DEBRIS ITEMS (>1 foot or ~0.3 meters)				
Item type (vessel, net, etc.)	Status (sunken, stranded, buried)	Approximate width (m)	Approximate length (m)	Description / photo ID # (if photos taken)



I loko nō o kēia mau loli 'ino, lana ho'i ko'u mana'o. I ko'u lele 'ana i 'ō a i 'ane'i, nānā iho au i lalo a 'ike au i nā keiki e pā'ani ana i ke ao kūlohelohe. 'Ohi'ohi lākou i ka 'ōpala ma kahakai. Kanu lākou i nā meakanu Hawai'i. Hele lākou a 'imi i nā mo'olelo Hawai'i kahiko. Maopopo nō lākou, no lākou ke kuleana 'o ka mālama 'ana i kēia honua no nā hanauna e hiki mai ana.





Despite these changes, I am hopeful. My hope comes from children. As I soar in the sky, I look down below and observe children spending time outdoors and connecting with nature. I see them cleaning debris from our beaches and caring for our home. I see them restoring the plants that sheltered me in my youth. I see them gazing into the night sky and studying the constellations. I see them hiking in the hills and remembering the stories of the past. I see them understanding that they are the future and that the stories of the future are for them to write.

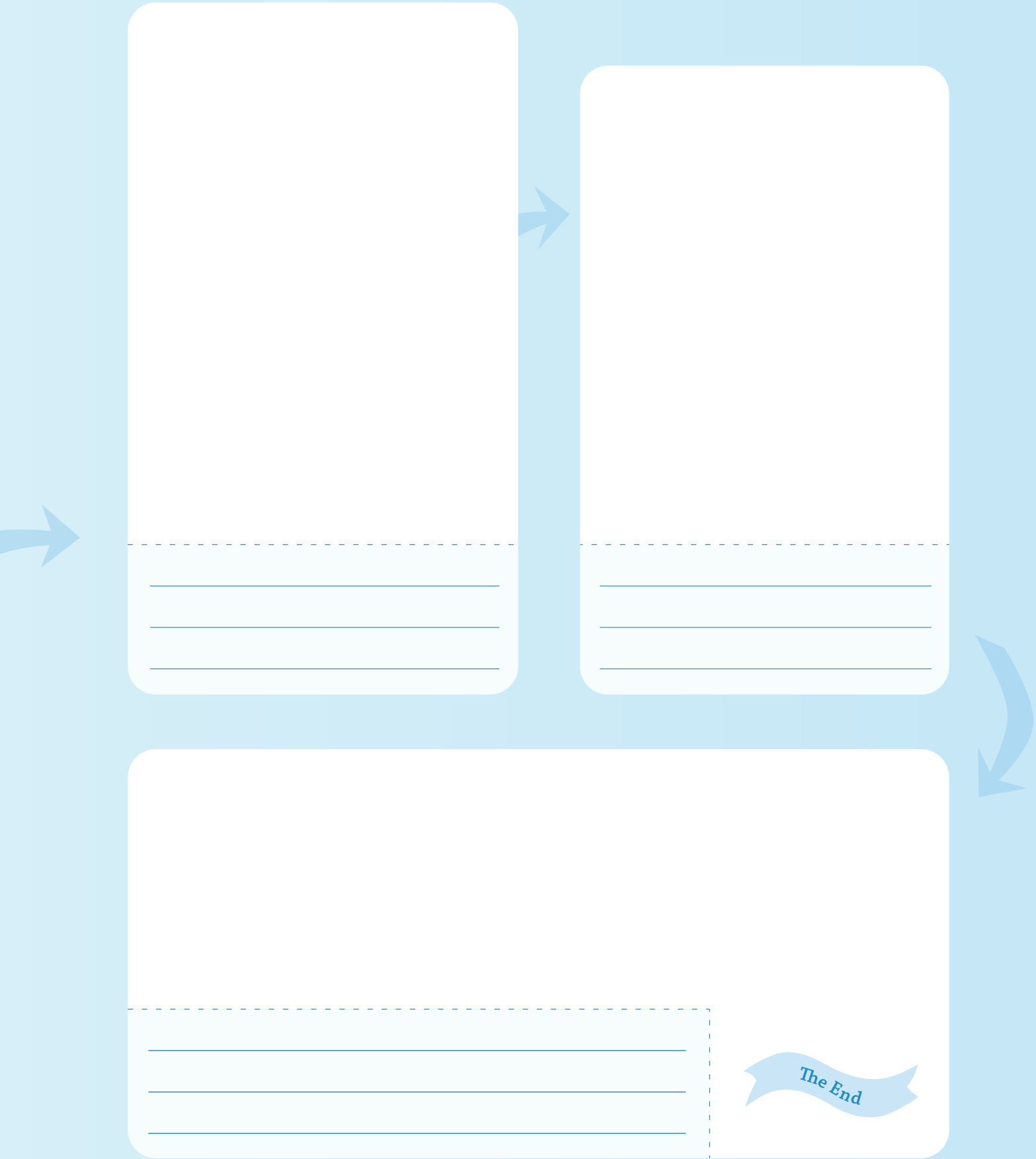


Finish the Story

How does this story end? That is for you to decide. In the boxes provided, please draw your hope for the future.



Continue your story here



The End

Personal Reflection

1 How do our actions on land affect the ocean?

2 What in the environment is most important to you?

3 How can you help preserve those things in nature that are most important to you?

4 If you could study any animal, what would it be? Why?

Answers

Page 3

Question 1: 100 hours, Question 2: 140 hours, Question 3: 81 hours

Page 21-22





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