Alignment Summary

The Lehua Islet Virtual Field Trip offers students an educational experience that they simply could not experience on an in-person field trip: a journey to a seabird sanctuary 17 miles west of Kauaʻi and just north of Niʻihau, filled with ground-nesting seabirds and world-class conservation projects. Students will explore this unique environment, learn about bird and plant species, discover conservation tools used to protect seabirds, and learn directly from field biologists what it takes to be a scientist helping to protect Hawaiʻi's natural resources.

As an educator, you can use this field trip in multiple ways: **Take a trip as a class** by connecting a computer to a large screen in your classroom and journeying through each "stop" on the field trip, clicking on the hotspots to reveal videos, images, and text. Make sure to link a speaker so students can hear the videos. Alternatively, **assign students to explore individually** on their devices at school or at home. If your class has a **virtual reality headset** that has a web browser, you can visually explore these locations (however, the educational hotspots are disabled in VR mode). Note that the hotspots often contain links to species profile pages on the websites of DLNR, University of Hawaiʻi, or Bishop Museum, allowing students to learn more if you'd like them to research particular species. This field trip contains roughly one hour of video footage, and exploring all of the hotspots, imagery, and text will likely take your class around two hours.

The guiding questions and alignments below are designed to facilitate integration with your curriculum goals. The alignments below are targeted for **Next Gen Science Standards, Nā Hopena Aʻo, and ʻĀina Aloha,** but you may also discover additional connections with Hawaiian Studies, Social Studies, and language curricula.

Guiding Questions

- What geographical and biological factors make Lehua a good place for seabirds to nest?

- How did the introduction (and later removal) of rabbits and rats impact seabirds on Lehua?
- What tools and methods do biologists use on Lehua to track the health of seabird populations?
- What relationship did Native Hawaiians have with Lehua, prior to the island being used by the US Coast Guard?
- What is it like to be a biologist working on Lehua, and why do you think biologists choose to do this work?

NGSS Alignment

The standard codes below have been hyperlinked to direct you to a description of the standard.

NGSS Code	Discipline & Core Ideas	Subitem	Relevant DCIs	Field Trip Connections to DCIs
K-ESS2-2	ESS: Earth and Space Sciences- 2: Earth's Systems	2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs	ESS2.E: Biogeology: Plants and animals can change their environment. ESS3.C: Human Impacts on Earth Systems: Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things.	Stop 10 ("Along the eastern arm") includes a hotspot titled "Let‘s talk about poop." It discussed how birds on Lehua change the environment by adding nutrient-rich guano, sustaining plant and animal life on Lehua and in its surrounding waters. At the same stop, a hotspot labeled "Changes in the ocean since removing rats" discusses some of the marine changes we expect to see as the amount of guano produced on the island increases.

K-ESS3-1	ESS: Earth and Space Sciences- 3: Earth and Human Activity	1: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.	ESS3.A: Natural Resources Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do.	Stop 10 ("Along the eastern arm") includes a hotspot titled "Ahu and use of Lehua by Native Hawaiians," which discusses human use of natural resources on Lehua, including susbsistence gathering of eggs and birds.
K-ESS3-3	ESS: Earth and Space Sciences- 3: Earth and Human Activity	3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.	ESS3.C: Human Impacts on Earth Systems Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. ETS1.B: Developing Possible Solutions Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (secondary)	The largest impact on Lehua from humans was the introduction of rats and rabbits. Much of the field trip discusses the restoration of the island, a monumental effort to reduce and correct the impacts humans have had on this island. For ETS1.B, students could develop solutions related to keeping invasive species off Lehua. What laws could be written, and what guidelines could be given to boat operators or scientists visiting Lehua to ensure pests don't arrive? What could biologists do to monitor for and remove invasive species that slip through the laws and guidelines you created?

1-LS1-1	LS: Life Sciences- 1: From Molecules to Organisms: Structures and Processes	1: Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	LS1.A: Structure and Function All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow.	Many of the plants seen in this virtual field trip are low-profile, creeping plants that stay low to the ground. Students may consider why plants have adapted this growth form. Answers include Lehua's shallow or non-existent soils, the scarcity of water on the island, and the high amount of wind.
1-LS1-2	LS: Life Sciences- 1: From Molecules to Organisms: Structures and Processes	2: Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	LS1.B: Growth and Development of Organisms Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive.	At Stop 2 in the video "Meet the ʻā" we see parents sitting on eggs or on top of their hatched chicks. Why do parents do this? In one photo an ʻā chick is on the nest by itself. Students may speculate that the parent is away from the nest gathering food for their chick. At Stop 7 in the video "Meet the ʻou," we learn that ʻou like to nest in tiny crevices in rocks. This protects their chicks, which tend to be plump and would make a good meal for predators.
2-LS4-1	LS: Life Sciences- 4: Biological Evolution: Unity and Diversity	2: Make observations of plants and animals to compare the diversity of life in different habitats.	LS4.D: Biodiversity and Humans There are many different kinds of living things in any area, and they exist in different places on land and in water.	Students may consider why ground-nesting seabirds are found mostly on off-shore islets rather than our main Hawaiian Islands (answer: there are fewer predators like rats, cats, and mongoose). They may also consider why some seabirds met in this virtual field trip like to live in open burrows (like the koaʻe ʻula or ʻuaʻu kani) and why others like to

				live in very small crevices (like the ‘ou).
3-LS1-1	LS: Life Sciences- 1: From molecules to Organisms: Structures and Processes	1: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.	LS1.B: Growth and Development of Organisms Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles.	Students may use the species they meet in this field trip to develop models of life cycles. The seabird profiles linked to in the "Meet the species" videos may have information about the time of year that different species nest and lay eggs, as well as information about when they fledge (leave the nest) and begin hunting for their own food at sea, then eventually mate and produce eggs.
3-LS2-1	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	Construct an argument that some animals form groups that help members survive.	LS2.D: Social Interactions and Group Behavior Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size (Note: Moved from K–2).	At Stop 6 we learn about the tool called "social attraction." Pretending that there is already a group of ‘ewa‘ewa on the island draws in more ‘ewa‘ewa. Why do birds flock together? Being in a group may help them alert one another to the presence of predators or find mates.

3-LS4-4	LS: Life Sciences- 4: Biological Evolution: Unity and Diversity	4: Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.	LS2.C: Ecosystem Dynamics, Functioning, and Resilience When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die. (secondary) LS4.D: Biodiversity and Humans Populations live in a variety of habitats, and change in those habitats affects the organisms living there.	Students may consider the changes caused to the environment of Lehua when rats and rabits were introduced to the island. They can make a claim about the merit of the solution used by biologists: rat eradication using a rat bait dropped by helicopter (see stop 9 and the video titled "Conservation tool: Restoration by removing rabbits and rats."
4-ESS2-1	ESS: Earth and Space Sciences- 2: Earth's Systems	Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.	ESS2.A: Earth Materials and Systems: Rainfall helps to shape the land and affects the types of living things found in a region. Water, ice, wind, living organisms, and gravity break rocks, soils, and sediments into smaller particles and move them around. ESS2.E: Biogeology: Living things affect the physical characteristics of their regions.	The Stop 5 hotspot "Hiking along the Western Arm" and the Stop 8 hotspot "Keaulepe: Keyhole" show heavily eroded areas. In an earlier hotspot, Lehua was described as a tuff cone, formed from volcanic ash produced during an eruption. Students may consider the formation of tuff, the wind and rain that fall on Lehua, and the resulting erosion in the island's terrain.

4-LS4-1	LS: Life Sciences- 4: Biological Evolution: Unity and Diversity	1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction	LS1.A: Structure and Function Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.	Students may consider the various body structures that seabirds use to live in their environment. One example can be found in stop 7 in the video "Meet the ‘Ou," which talks about tubenose birds and the tubes they have on their beaks to eject saltwater. In Stop 2, the video "Meet the Koa‘e ‘Ula" discusses the red tail streamers that adults grow. The length of these streamers are likely related to attracting a mate. In Stop 4 (the peak), the video about mōlī discusses the hook at the end of their beak being used to pick up food items from the water.
5-ESS3-1	ESS: Earth and Space Sciences- 3: Earth and Human Activity	Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.	ESS3.C: Human Impacts on Earth Systems Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth’s resources and environments.	Students can learn about science ideas to protect the environment in the videos labeled "Conservation Tools", including song meters (Stop 5), social attraction (Stop 6), burrow checks (Stop 7), and game cameras (Stop 8). At Stop 12 they learn about conservation careers and what it is like to be a field biologist.

5-LS2-1	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	LS2.B: Cycles of Matter and Energy Transfer in Ecosystems Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment.	The birds met through this virtual field trip mostly rely on marine organisms for their food rather than eating the plants found on Lehua. But, they are still connected through cycles of energy and matter. In particular, birds contribute nitrogen, phosphorous, and other nutrients to the environment via their guano, which supports plants and marine life. This is discussed in Stop 10 in the hotspot "Let‘s talk about poop."

HS-LS2-2	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.	LS2.A: Interdependent Relationships in Ecosystems: Ecosystems have carrying capacities, which are limits to the numbers of organisms and populations they can support. These limits result from such factors as the availability of living and nonliving resources and from such challenges such as predation, competition, and disease. Organisms would have the capacity to produce populations of great size were it not for the fact that environments and resources are finite. This fundamental tension affects the abundance (number of individuals) of species in any given ecosystem. LS2.C: Ecosystem Dynamics, Functioning, and Resilience: A complex set of interactions within an ecosystem can keep its numbers and types of organisms relatively constant over long periods of time under stable conditions. If a modest biological or physical disturbance to an ecosystem occurs, it may return to its more or less original status (i.e., the ecosystem is resilient), as opposed to becoming a very different ecosystem. Extreme fluctuations in conditions or the size of any population, however, can challenge the functioning of ecosystems in terms of resources and habitat availability.	Students may consider what factors limit population growth on Lehua now that rabbits and rats are gone. On a small island, there is certainly a carrying capacity for seabirds. But, this capacity depends on factors like food in the surrounding ocean, the presence of native plants to provide habitat for roosting and nesting, and the amount of space on the island. As we expect seabird population sizes to increase, we can expect increased competition for space and food resources on the island.

HS-LS2-6	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	6: Evaluate claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.	LS2.C: Ecosystem Dynamics, Functioning, and Resilience A complex set of interactions within an ecosystem can keep its numbers and types of organisms relatively constant over long periods of time under stable conditions. If a modest biological or physical disturbance to an ecosystem occurs, it may return to its more or less original status (i.e., the ecosystem is resilient), as opposed to becoming a very different ecosystem. Extreme fluctuations in conditions or the size of any population, however, can challenge the functioning of ecosystems in terms of resources and habitat availability.	A major biological disturbance to Lehua's ecosystems occurred when rabbits and rats were introduced. Students may consider whether Lehua's ecosystems were likely in balance and supported consistent bird populations before these introductions, and what impacts these invasive species had on plants and birds on the island following their introduction.

HS-LS2-7	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	7: Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.	LS2.C: Ecosystem Dynamics, Functioning, and Resilience Moreover, anthropogenic changes (induced by human activity) in the environment—including habitat destruction, pollution, introduction of invasive species, overexploitation, and climate change—can disrupt an ecosystem and threaten the survival of some species. LS4.D: Biodiversity and Humans Biodiversity is increased by the formation of new species (speciation) and decreased by the loss of species (extinction). (secondary) Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value. (secondary) (Note: This Disciplinary Core Idea is also addressed by HS-LS4-6.)	For LS2.C, students may consider how the introduction of invasive species (rabbits and rats) impacts the island's flora and fauna, and how climate change may impact this island. The virtual field trip also discusses how Lehua may help bird populations survive future changes in climate: bird populations that currently thrive on low-lying atolls in the Northwest Hawaiian Islands may need to shift south to Lehua and other relatively high islands as sea levels rise. For LS4.D, students may explore the concept of speciation by researching the multiple species of ʻā described in this field trip (primarily in Stop 2, "Meet the ʻā"). How are brown booby, red-footed booby, and Cocos booby related? Cocos booby was considered a subspecies of brown booby until 2024. What factors led to the decision to consider Cocos booby its own species?

HS-LS2-8	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce	LS2.D: Social Interactions and Group Behavior Group behavior has evolved because membership can increase the chances of survival for individuals and their genetic relatives.	At Stop 6 we learn about the tool called "social attraction." Pretending that there is already a group of ‘ewa‘ewa on the island draws in more ‘ewa‘ewa. Why do birds flock together? Being in a group may help them alert one another to the presence of predators or find mates.

HS-LS4-6	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.	LS4.C: Adaptation Changes in the physical environment, whether naturally occurring or human induced, have thus contributed to the expansion of some species, the emergence of new distinct species as populations diverge under different conditions, and the decline–and sometimes the extinction–of some species. LS4.D: Biodiversity and Humans Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change. Thus sustaining biodiversity so that ecosystem functioning and productivity are maintained is essential to supporting and enhancing life on Earth. Sustaining biodiversity also aids humanity by preserving landscapes of recreational or inspirational value. (Note: This Disciplinary Core Idea is also addressed by HS-LS2-7.) ETS1.B: Developing Possible Solutions When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts. (secondary) Both physical models and computers can be used in	Lehua is an excellent model for seeing the impacts of human activity on biodiversity (through the introduction of invasive species) and as well as the impacts of solutions to population decline. In the videos labeled "Conservation Tools," students learn about the tools scientists use to ensure that invasive species are not found on the island and that bird populations are healthy. In particular, students can see scientists actively trying to increase biodiversity on the island through social attraction. What other solutions might students suggest to reducing human impacts on biodiversity on Lehua?

			various ways to aid in the engineering design process. Computers are useful for a variety of purposes, such as running simulations to test different ways of solving a problem or to see which one is most efficient or economical; and in making a persuasive presentation to a client about how a given design will meet his or her needs. (secondary)	

MS-ESS3-3	ESS: Earth and Space Sciences- 3: Earth and Human Activity	3: Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.	ESS3.C: Human Impacts on Earth Systems Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth's environments can have different impacts (negative and positive) for different living things. Typically as human populations and per-capita consumption of natural resources increase, so do the negative impacts on Earth unless the activities and technologies involved are engineered otherwise.	The past presence of invasive species on Lehua (rabbits and rats) is ultimately a human impact on the environment, since these species were introduced to Hawai‘i by humans. The virtual field trip describes multiple monitoring tools used to detect potential invasive species on the island, as well as to monitor the health of bird populations. These include song meters (Stop 5) and game cameras (Stop 8). Students may design additional methods for monitoring or minimizing human impacts on Lehua.
MS-LS1-4	LS: Life Sciences- 1: From Molecules to Organisms: Structures and Processes	4: Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.	LS1.B: Growth and Development of Organisms Animals engage in characteristic behaviors that increase the odds of reproduction. Plants reproduce in a variety of ways, sometimes depending on animal behavior and specialized features for reproduction.	Two examples of reproductive behaviors are found in the mōlī dance party hotspot in Stop 4 (albatross use dancing as a courtship display), and the growth of red streamers by koa‘e ‘ula discussed in the "Meet the Koa‘e ‘Ula" video in Stop 3. The length of the red streamers may be linked to mate attraction.

MS-LS2-2	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	2: Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.	LS2.A: Interdependent Relationships in Ecosystems Similarly, predatory interactions may reduce the number of organisms or eliminate whole populations of organisms. Mutually beneficial interactions, in contrast, may become so interdependent that each organism requires the other for survival. Although the species involved in these competitive, predatory, and mutually beneficial interactions vary across ecosystems, the patterns of interactions of organisms with their environments, both living and nonliving, are shared.	This standard discusses interactions including predation, competition, and beneficial interactions. For predation, students will hear frequently about predation by rats limiting the number and types of seabirds on the island. Following rat eradication, we expect the number and types of birds to increase (rat eradication is discussed throughout the field trip, but discussed in greatest detail at Stop 9). For competition, students may consider how the birds on the island relate to one another. Some, like ‘iwa (Stop 5), steal food from one another. For beneficial interactions, the idea of social attraction (Stop 6) may be an opportunity for students to discuss intraspecies beneficial interactions and how birds of the same species benefit from being near one another.

MS-LS2-3	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.	LS2.B: Cycle of Matter and Energy Transfer in Ecosystems Food webs are models that demonstrate how matter and energy is transferred between producers, consumers, and decomposers as the three groups interact within an ecosystem. Transfers of matter into and out of the physical environment occur at every level. Decomposers recycle nutrients from dead plant or animal matter back to the soil in terrestrial environments or to the water in aquatic environments. The atoms that make up the organisms in an ecosystem are cycled repeatedly between the living and nonliving parts of the ecosystem.	Students learn in the Stop 10 hotspot "Let‘s talk about poop" about the cycling of nitrogen and phosphorous through seabird guano back into the plants and marine life around Lehua, which in turn supports the seabird's diet of fish, squid, and other marine organisms.
MS-LS2-4	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	4: Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.	LS2.C: Ecosystem Dynamics, Functioning, and Resilience Ecosystems are dynamic in nature; their characteristics can vary over time. Disruptions to any physical or biological component of an ecosystem can lead to shifts in all its populations.	Lehua undergoes seasonal changes (students may notice that some photos show Lehua's vegetation as bright green, while other photos show it as a dull brown/yellow during the summer dry season). Another biological disruption to Lehua's ecosystems occurred when rabbits and rats were introduced. Students may consider the impacts that these invasive species had on plants and birds on the island, and the subsequent impacts of removing those invasive species from the island.

MS-LS2-5	LS: Life Sciences- 2: Ecosystems: Interactions, Energy, and Dynamics	5: Evaluate competing design solutions for maintaining biodiversity and ecosystem services.	LS2.C: Ecosystem Dynamics, Functioning, and Resilience Biodiversity describes the variety of species found in Earth's terrestrial and oceanic ecosystems. The completeness or integrity of an ecosystem's biodiversity is often used as a measure of its health. LS4.D: Biodiversity and Humans Changes in biodiversity can influence humans' resources, such as food, energy, and medicines, as well as ecosystem services that humans rely on—for example, water purification and recycling. (secondary) ETS1.B: Developing Possible Solutions There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem. (secondary)	For LS4.D, changes in seabird biodiversity in the last 200 years have certainly influenced human relationship to food resources. While Native Hawaiians visited Lehua to collect eggs and birds for food (see Stop 10), nowadays we prohibit harvesting native seabirds or their eggs for food. As a thought exercise, students may consider what level of biodiversity and abundance we would need to consider our bird populations "healthy," so that they are no longer considered at-risk. Would it be acceptable, then, to harvest seabirds or their eggs for food? What solutions would students suggest to increase bird diversity and abundance to such levels, and what laws or guidelines would they place on hypothetical harvesting to ensure sustainable populations?

Alignment with Nā Hopena A‘o Statements

Hopena	**Statement**
1. Strengthened Sense of Belonging	a. Know who I am and where I am from
	b. Know about the place I live and go to school

2. Strengthened Sense of Hawai‘i	b. Use Hawaiian words appropriate to their task
	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
	g. Treat Hawai‘i with pride and respect
	h. Call Hawai‘i home

‘Āina Aloha Competencies:

This link will direct you to the Office of Hawaiian Education (OHE) ‘Āina Aloha competencies.

https://sites.google.com/k12.hi.us/ohehub/hawaiian-studies-program-hsp/%CA%BB%C4%81ina-aloha-a%CA%BBa-choice-board?authuser=0

Competency	Sub Competency	Competency Highlight
Aina Ulu: Growth Cycle	Kupu	Young and fresh learner
Kuana‘ike: Ahupua‘a	Kupu	Understanding the significance and importance of stewardship, systems and cycles

Honua: Pono	Hua	Advocates for living pono and contributes to aina well-being