

Education Kit



*Navigating Change*TM *Northwestern Hawaiian Islands*



Navigating Change Education Kit

Hokule'a brings stories of the Northwestern Hawaiian Islands to further examine the cultural and biological wonders of this unique and rarely seen ecosystem. Hokule'a is the messenger of lessons learned among the *kupuna* (older) islands. The goal of Navigating Change is to motivate, encourage and challenge people to take action to improve the environmental conditions in their own backyards, especially as it pertains to our coral reefs ecosystems. We want people to take responsibility for the stewardship and sustainability of our islands and our ocean.

Navigating Change is brought to you in partnership by: United States Fish and Wildlife, NOAA, Department of Land and Natural Resources, KidScience Hawaii Department of Education, Pacific Resources for Education and Learning (PREL), Bishop Museum

The Navigating Change Education Kit consists of the following:

Five video segments about Navigating Change.

1. **Navigating Change: The Voyage**

To begin our journey we must know something about where we are going. The Hawaiian archipelago extends far beyond Kauai including a 1200 mile chain of coral islands, reefs and atolls. The voyaging canoe Hokule'a carries the messages from the Northwestern Hawaiian Islands to learn of its unique and spectacular cultural and natural elements. This pristine area is covered with life so numerous and vivid there are uncountable numbers of native seabirds, fish and coral that make it seem unreal. However, this place is very real and is apart our State of Hawai'i. With this voyage Hokule'a unveils not only a native healthy ecosystem but begins to reawaken a cultural journey back to those islands when Polynesian people once voyaged there some 1500 years ago.

2. Navigating Change: Land to Sea Connections

The Northwestern Hawaiian Islands clearly illustrates how the life on land is connected to life in the sea. Seabirds, green sea turtles and Hawaiian monk seals need both a healthy land and a healthy sea in order to survive. In the NWHI it is easy to see how those two ecosystems are interrelated. Native Hawaiians understood how the land was connected to the sea as they saw our islands as a system of corridors extending from the mountains to the sea. To ensure and protect life in a healthy reef ecosystem, requires conserving resources from high in the mountains to low in the wetlands. Taking care of our `ahupua`a is critical to our health and well being so we can once again experience Hawai`i's native wildlife.

3. Navigating Change: Change Over Time

The natural environment that surrounds seems so beautiful so it must be healthy, or is it? Gradually over time our natural resources have declined. The younger generation today is unaware of what a healthy ecosystem really is because what they see around them today they assume is okay. Through comparisons between the NWHI ecosystems and the main Hawaiian Islands can we visually see what type of declines have occurred in our own backyards. The NWHI offer a glimpse into the past. The NWHI give us an idea of what the main Hawaiian Islands once looked like and serve as a model of hope. How do we bring back a healthier Hawai`i? How do we stop this trend of decline?

4. Navigating Change: Human Impacts

We live in a fragile place. Islands and reefs are devastated by invasive or alien species in our remote island home, a place naturally belonging to native plants and wildlife that live nowhere else on the planet. Our oceans have become dumping grounds where debris can drift for years finally ending up on our Hawai`i by the tons. The good news is that we can learn from our mistakes. The restoration work occurring in the NWHI can be an inspiration for changing the way we live in the main Hawaiian Islands. We can learn to interact with our environment in healthy ways. These ways give value and a quality of life for us as humans so we can experience the true native beauty and essence of Hawai`i.

5. Navigating Change: You Make the Difference

Hokule'a's messages from the NWHI has shown us that the NWHI are indeed an incredible place. These islands have given us an opportunity to see how we can live better and how we must accept responsibility to malama, to care for our island home if we don't want to destroy our environment and ultimately our well being. We have learned how easily humans can leave their mark and with hard work we can restore native wildlife to our own backyards. We can instill a responsibility to malama, to care for our island home. Students and communities can have fun by taking action and ultimately knowing they truly are responsible for their own `ahupua`a and even doing just a little at a time can make a HUGE difference.

Videos available:

- On the web: hawaiianatolls.org
- Videos to be broadcast on Educational Access Channels, Hawaii DOE TV
10/6 at 2:00 p.m. and on 10/13, 10/20 and 10/27 at 9:00 a.m. and 2:00 p.m.....Set VCR"s and tape them!!!!!!
- DOE teachers can request the videos from the Television Services Office
<http://www.teleschool.k12.hi.us>
- Private schools, please call 397-2405 for information about obtaining copies.

Curriculum Package

The accompanying lessons and activities support the videos.

- Where in the World are the Northwestern Hawaiian Islands?
- Compare and Contrast
- Shifting Baselines
- Coral Reef Habitats
- From Land to Sea
- Did You Know???
- Human Impacts on the Reef
- Who Makes the Decisions? (A Town Meeting)
- Getting Involved
- Sail Away
- Wayfinding: Navigating Using Environmental Clues

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Unit at a Glance:

What lessons are there to be learned from the Northwestern Hawaiian Islands? Students will take a journey up to the Northwestern Hawaiian Islands where the green sea turtles, awesome monk seals and millions of sea birds come to nest and give birth. Why do they migrate to these remote islands? What is the connection between the islands and the sea? How are these islands different from the main Hawaiian Islands? Can we "navigate change" to help improve the environmental conditions in our own backyards?

Standards and Performance Indicators

Standard	Performance Indicators
Domain I Standard 3: Using Unifying Concepts and Themes Students use concepts and themes such as system, change and scale to model and to help them understand and explain the natural world.	<ul style="list-style-type: none"> • System: Observes and describes how parts influence each other in a system. • Change: Identifies patterns of change in things, using data and evidence.
Domain II Standard 3: Malama Ika'Aina: Sustainability Students make decisions needed to sustain life on earth now and for the future generations by considering the limited resources.	Conservation of resources: <ul style="list-style-type: none"> • Identify natural resources • Develop a way to conserve each resource. • What so people believe/assume about the existence of natural resources?
Domain II Standard 5: Interdependence Students describe, analyze and give examples of how organisms are dependent on one another and their environments.	<ul style="list-style-type: none"> • Explains how organisms respond to a constantly changing environment. • Explains how changes in a specific niche affect the population of organisms living there.
Domain II Standard 19: Forces That Shape the Earth Students analyze the scientific view of how the Earth's surface is formed.	<ul style="list-style-type: none"> • Gives examples of how wind, waves and water shape and reshape the Earth's land surface.

CULMINATING ACTIVITY

Students are to identify and gather information about an environmental issue in their community. Students will then write a newspaper to create awareness of the issue. This newspaper needs to include the following types of stories:

- front page story
- editorials, both for and against the issue
- business story, what impact is this issue having on the economy
- political cartoon
- want ad

The content of the stories need to focus on the environmental issue. Students may need to take a look at a real newspaper for ideas on how to write their stories.

Student Activities

- Where in the World are the Northwestern Hawaiian Islands?
- Compare and Contrast
- Shifting Baselines
- Coral Reef Habitats
- From Land to Sea
- Did You Know???
- Human Impacts on the Reef
- Who Makes the Decisions? (A Town Meeting)
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Culminating Project Rubric

Students are to identify and gather information about an environmental issue in their community. Students will then write a newspaper to create awareness of the issue. This newspaper needs to include the following types of stories:

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	Advanced 4	Proficient 3	Basic 2	In-Progress 1	Score
Collecting Data	Describe the issue. Explain who/what is impacted and how.	Describes the issue or problem.	Identifies issue or problem.	Picks a topic	
Organizing Information	Outline information for each story.	Outline the information	Identify topics List facts	Identify topics	
Analyze Information	Gives pros and cons and suggestions of a solution.	Gives pros and cons of the issue.	Explains one side of the issue	Identifies topic	
Final Product	Completes the stories into a newspaper format, include pictures.	Writes the 5 different types of stories.	Writes the front page story.	Can verbally describe the issue.	
				Total Score	

Standards and Performance Indicators

Standard	Performance Indicators	Student Activity	Completed
<p>Domain I Standard 3: Using Unifying Concepts and Themes Students use concepts and themes such as system, change and scale to model and to help them understand and explain the natural world.</p>	<ul style="list-style-type: none"> • System: Observes and describes how parts influence each other in a system. • Change: Identifies patterns of change in things, using data and evidence. 	<ul style="list-style-type: none"> • Land to Sea • Shifting Baselines 	
<p>Domain II Standard 3: Malama Ika’Aina: Sustainability Students make decisions needed to sustain life on earth now and for the future generations by considering the limited resources.</p>	<p>Conservation of resources:</p> <ul style="list-style-type: none"> • Identify natural resources • Develop a way to conserve each resource. • What so people believe/assume about the existence of natural resources? 	<ul style="list-style-type: none"> • Compare and Contrast • Human Impacts on the Reef • Did You Know? • Who Makes Decisions? • Getting Involved 	
<p>Domain II Standard 5: Interdependence Students describe, analyze and give examples of how organisms are dependent on one another and their environments.</p>	<ul style="list-style-type: none"> • Explains how organisms respond to a constantly changing environment. • Explains how changes in a specific niche affect the population of organisms living there. 	<ul style="list-style-type: none"> • Coral Reef Habitats • Land to Sea 	
<p>Domain II Standard 19: Forces That Shape the Earth Students analyze the scientific view of how the Earth’s surface is formed.</p>	<ul style="list-style-type: none"> • Gives examples of how wind, waves and water shape and reshape the Earth’s land surface. 	<ul style="list-style-type: none"> • Where in the World are the Northwestern Hawaiian Islands? 	