CAND-BASED SEABIRDS IN HAWAI'I

FOR EARLY LEARNERS

Z RATIONALE

Understanding how native Hawaiians observed land-based seabirds will guide haumanā in their understanding of ancestral insight and the importance of aloha `āina.

(?) ESSENTIAL QUESTION

• What are land-based seabirds?

• How can observing nature help a wayfinder?

🔁 MATERIALS

- Computer, laptop, or tablet
- Internet connection
- Other materials listed in individual activities

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OCABULARY

- Wayfinding/Wayfinder
- Voyager
- Manu (bird)
- •`lwa
- Manuokū

$\stackrel{=}{\rightarrow}$ opening discussion

• Noio

- Kilo (to observe)
- Wing-Span
- Bigger/Smaller

https://ksdigitalfiles.ksbe.edu/assets/ seabirds/seabirds_presentation.pdf (Select the "Opening Discussion" button)



• Ask keiki if they have ever noticed birds in the sky. What do they know about the birds?

• Ask keiki if they know what a wayfinder or voyager is. Discuss in general terms what they do. Then let them know that wayfinders used birds to help guide them when they were sailing and when they were on land.

ACTIVITY IDEA #1: Observing Land-Based Seabirds

https://ksdigitalfiles.ksbe.edu/assets/seabirds/ seabirds_presentation.pdf (Select the "Observing Land-Based Seabirds" button)



Hawaiian Seabird Coloring Activity: https://ksdigitalfiles.ksbe.edu/assets/seabirds/ seabirds_coloring_prek.pdf

- Begin the lesson by showing keiki a picture of a manu (bird) on the star compass. Ask keiki to share what they know about birds.
 - Share with keiki that voyagers often looked to birds and other aspects of nature to help guide them in navigation, to find fish, and for hints in the upcoming changes in weather.
 - Have keiki look at pictures of the Hawaiian seabirds:
 - ° **`Iwa (Great Frigatebird)** Stormy weather is approaching.
 - ° Manuokū (White Tern) Land is close by.
 - ° Noio (Black Noddy) Fish is nearby the bird.
- Share mana`o about native Hawaiian birds

After this lesson, keiki will be able to:

- Reason quantitatively and use tools to measure
- Reflect and respond to an `Ōlelo No`eau
- Have keiki work on the Hawaiian seabird coloring activity to reinforce learning.



ACTIVITY IDEA #2: How big are these birds?

https://ksdigitalfiles.ksbe.edu/assets/seabirds/ seabirds_presentation.pdf (Select the "How big are these birds?" button)



- Begin by reviewing what keiki already know. What are the names of the Hawaiian seabirds? What did you learn about these birds?
- Ask keiki if they have ever wondered how big these birds are?

• Today, we are going to measure the wing-span of each of these birds. When we measure today, we are going to use the terms inches and feet. Let's look at (measuring device). This is an inch, and every time we get 12 inches together we get 1 foot. So 12 inches is the same as 1 foot.

• Explain to keiki that wing-span is the measurement of the tip of one wing to the tip of the other (Kumu holds out both arms from side to side). Let's make some predictions. Which bird do you think has the biggest wing-span? Do you think that your wing-span is bigger or smaller than these birds?

- ° `Iwa The wingspan of the `Iwa is 7 to 8 feet.
- ° Manuokū The wingspan of the manu-o-kū is 2-3 feet.
- ° Noio The wingspan of the Noio is about 2 feet.
- Kumu helps keiki measure their wingspans using a measuring tape.

• Ask what their wingspans are. Is your wingspan bigger or smaller than any birds? If we're bigger than some of the birds, why can't we fly?

Activities to further learning:

Explain to keiki that there are also Hawaiian measurements that we can use. Ancient Hawaiians found ways to approximate measurements by using the body.

- ° Ha`ilima Measurement of length from elbow to the end of the fingers
- ° **Iwilei** Measurement of length from collarbone to the tip of the middle finger with arm extended
 - ° **Muku** Measurement of length from fingertips of one hand to the elbow of the other arm, when both arms are extended to the side
 - ^o Anana Measurement of length from tips of longest fingers, measured with arms extended on each side

We can use a measuring tape to measure our Hawaiian body measurements. How long are each of these measurements in inches for a kumu or keiki? Have keiki work on the Hawaiian measurements activity.

> (You can download the activity from https://ksdigitalfiles.ksbe.edu/assets/seabirds/ hawaiian_measurements.pdf)



ACTIVITY IDEA #3: `Ōlelo No`eau

https://ksdigitalfiles.ksbe.edu/assets/seabirds/ seabirds_presentation.pdf



(Select the "`Ōlelo No`eau" button)

• This activity can be shared during a small or large group gathering. Responses to the activity can be individually or as groups.

• Begin the activity by sharing the `ōlelo no`eau and it's english translation. Say it once, and then encourage the keiki to say the 'ōlelo with you.

'Au i ke kai me he manu ala (237).

"Cross the sea like a bird." To sail across the sea.

• Then ask the keiki what they think about the `ōlelo no`eau. Remind the keiki about what they have learned about the `iwa, manuokū, and the noio.

• Ask keiki to respond to the `ōlelo no`eau with a drawing using their writing journal or iPad. On the iPad keiki could use an app like Draw and Tell or Seesaw to create a drawing and then share their mana`o using a voice recording.



Send us a photo or video of your class doing these activities for a chance to be featured on the Holomoana website! Email it to <u>ittraining@ksbe.edu</u>

😨 SUPPLEMENTAL LINKS

http://archive.hokulea.com/

https://hawaiibirdingtrails.hawaii.gov/

https://h-mar.org/about-the-animals/hawaii-seabirds/

POSSIBLE LEARNING STANDARDS CONNECTIONS
E Ola! <u>https://blogs.ksbe.edu/eola/</u>
'Ike kūpuna: ancestral experiences, insights, perspectives, knowledge, and practices.
Aloha 'aina: Hawaiian patriotism; love for the land and its people.
Transfer Goal B (Math): Students will use their learning to validate the reasonableness
of possible solutions. Overarching Understanding: There can be multiple solutions to a problem.
• Essential Question: Can my answer be different and correct?
• Explanation: Begin to reason quantitatively.
Work Sampling System <u>https://sites.google.com/ksbe.edu/nakulakamalii/iii-n%C4%81-kula-ka</u> mali%CA%BBi/n%C4%81-kula-kamalii-e-ola-booklet
Personal and Social Development
D3-Participates in the group life of the class. (P3/P4)
Language and Literacy
B3-Uses expanded vocabulary and language for a variety of purposes. (P3/P4)
C4-Begins to recount key ideas and details from text. (P3)
C4-Recounts some key ideas and details from text. (P4)
D1-Represents ideas and stories through pictures, dictation, and play. (P3/P4)
Mathematical Thinking
A1-Begins to make sense of problems and uses simple strategies to solve them. (P3/P4)
A2-Reasons quantitatively and begins to use some tools. (P3/P4)
A3-Uses words and representations to describe mathematical ideas. (P3/P4)
Scientific Thinking
A2-Uses senses and simple tools to explore. (P3)
A2-Uses senses and simple tools to explore solutions and problems (P4)
A4-Communicates experiences, observations, and ideas with others through conversations, representations, and/or behavior. (P3/P4)
ISTE Standards <u>https://www.iste.org/standards/iste-standards-for-teachers</u>
1.1.a: Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.
1.7.c: Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

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https://www.ksbe.edu/digital/holomoana/