

CARDINAL POINTS



RATIONALE

Understanding cardinal points is a fundamental skill that helps us orient ourselves wherever we might be. This skill can be scaffolded to further strengthen students' pilina with their 'āina.

ESSENTIAL QUESTION

How can we tell which way or direction we are heading?

MATERIALS

- Computer, laptop, or tablet
- Internet connection

LEARNING OBJECTIVES

After this lesson, learners will be able to:

- Explain how a star compass guides Hawaiian wayfinders in the ocean.
- Locate each of the four cardinal points (in 'ōlelo Hawai'i) on a compass.
- Identify the four cardinal points through a variety of modalities.

OPENING DISCUSSION

<https://ksdigitalfiles.ksbe.edu/assets/waa/content/cardinalpoints/story.html>
(Select the "Overview" button)

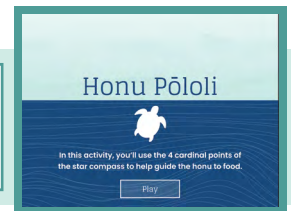


Ask haumāna if they've ever noticed where the sun rises and sets at their home. Explain that like the sun always rises in Hikina (the East) and sets in Komohana (the West), so too do the stars.

Ask if anyone knows what a wayfinder is, and explain the significant role that wayfinders have played in Hawaiian history, and even today. Discuss in general terms how they use a star compass to guide them in the right direction, then show where each cardinal point is located on the compass, and the name for each (Hikina, Komohana, Hema, 'Ākau.)

ACTIVITY IDEA #1: Honu Pōloli

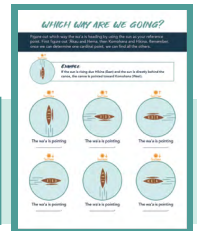
<https://ksdigitalfiles.ksbe.edu/assets/waa/content/cardinalpoints/story.html>
(Select the "Level 1" button under Honu Pololi Game)



Introduce the Honu Pōloli activity and have students go to the site. Call on students one at a time to choose which direction to tell the honu to swim. Make sure to navigate the honu around the ocean litter and not into it on his way to getting food! Ask haumāna why we wouldn't want the honu to swim into the trash and discuss how litter impacts our sea creatures. Explain how we all share the kuleana to mālama the kai and its 'ia.

ACTIVITY IDEA #2: Which Way Are We Going

https://ksdigitalfiles.ksbe.edu/assets/waa/content/cardinalpoints_activity/whichway.pdf

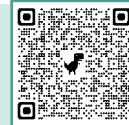


Introduce the Which Way Are We Going activity and make sure each student has a worksheet. Explain to them that a wayfinder can determine which direction he/she is heading in based on where the sun is in relation to the wa'a. Go through the examples then have the haumāna complete the rest on their own.



ACTIVITY IDEA #3: Find the Cardinal Points at Your Home

https://ksdigitalfiles.ksbe.edu/assets/waa/content/cardinalpoints_activity/findthecardinalpoints.pdf



Over the next few days, tell haumāna to observe where the sun rises and sets in relation to their house. Tell them to go outside and mark where it rises and where it sets (using a rock, stick, etc.) Now that they have identified Hikina and Komohana, they can also mark 'Ākau and Hema. Then, tell haumāna to write down directions from one room in their house to another, using the four cardinal points. Have them specify how many steps to take in one direction before moving in another direction. Then they can have someone in their 'ohana try it out using their directions and see if they make it to the right room.

SHOW US WHAT YOU DID!



Send us a photo of the cardinal points in your home for a chance to be featured on the Holomoana website!

Email it to ittraining@ksbe.edu.



SUPPLEMENTAL LINKS

<http://www.hokulea.com/kau-ka-pea-holo-ka-waa/>

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

<https://kaiwakiloumoku.ksbe.edu/moananuiakea>

<https://www.youtube.com/watch?v=8JuA5lsiJuc>

<https://www.youtube.com/watch?v=TWm52IPPZjl>

(Learning standards are on the next page)



Kamehameha Schools®



POSSIBLE LEARNING STANDARDS CONNECTIONS

E Ola!

<https://blogs.ksbe.edu/eola/>

'Ike kūpuna: ancestral experiences, insights, perspectives, knowledge, and practices.

Aloha 'aina: Hawaiian patriotism; love for the land and its people.

Transfer Goal A: Students will independently use their learning to construct an explanation from observations of scientific phenomena. Overarching Understanding: Observations can lead to questions, predictions and conclusions.

- **Essential Question:** How can observations create evidence?
- **Explanation:** Construct meaning from observations.

Nā Hopena A'o:

<https://www.hawaiipublicschools.org/DOE%20Forms/NaHopenaAoE3.pdf>

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

6. Strengthened sense of Hawai'i

- a. Pronounce and understand Hawaiian everyday conversational words
- b. Use Hawaiian words appropriate to their task
- d. Learn and apply Hawaiian traditional world view and knowledge in contemporary settings
- e. Share the histories, stories, cultures and languages of Hawai'i

NGSS

<https://www.nextgenscience.org/>

1-ESS1-1 Use observations of the sun, moon, and stars to describe patterns that can be predicted

- **ESS1.A: The Universe and its Stars**
Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted.

1-ESS1-2 Make observations at different times of year to relate the amount of daylight to the time of year.

- **ESS1.B: Earth and the Solar System**
Seasonal patterns of sunrise and sunset can be observed, described, and predicted.

CCSS

<http://www.corestandards.org/read-the-standards/>

English Language Arts

Research to Build and Present Knowledge

- **CCSS.ELA-LITERACY.W.1.8**
With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- **CCSS.ELA-LITERACY.W.2.8**
Recall information from experiences or gather information from provided sources to answer a question.
- **CCSS.ELA-LITERACY.W.3.8**
Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

— KS DIGITAL HOLOMOANA —

Cardinal Points

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