

HAWAIIAN STAR COMPASS

('Ohana Engagement)

This lesson plan includes fun and developmentally appropriate activities for your keiki and 'ohana. We've put together a wide variety of activities that will help you learn about wayfinding.

'OHANA GOAL - FAMILY GOAL

(Why do the activity?)

Be able to identify the 32 houses of the Hawaiian Star Compass and how to use it to identify direction.

'OLELO NO'EAU

Ma ka hana ka 'ike, ma ka 'imi ka loa'a.

"In working one learns, through initiative one acquires."

LEARNING OBJECTIVES

To help orient a voyaging canoe to the rising and setting points of stars, the wayfinder uses a star compass with thirty-two equidistant directional points around the horizon, each point 11.25 degrees from the next point (11.25 degrees x 32 points = 360 degrees).

Each point is the midpoint of a house of the same name, and each house is 11.25 degrees wide (11.25 degrees x 32 houses = 360 degrees).



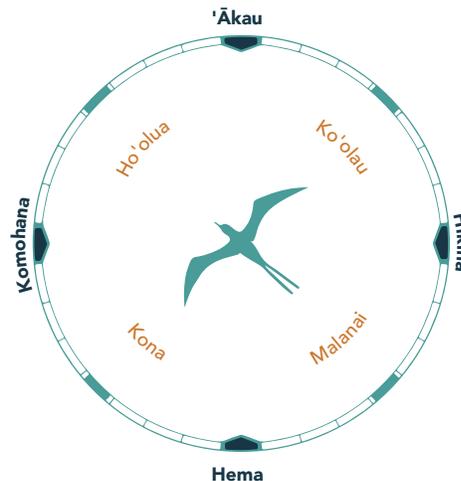
HA'AWINA - LESSON



FOUR CARDINAL DIRECTIONS

The **four cardinal directions** have traditional Hawaiian names:

- **East** is called **Hikina** ("Arriving" or "Coming"), where the sun and stars "arrive" at the horizon
- **West** is called **Komohana** ("Entering"), where the sun and stars "enter" into the horizon
- **North** is called **'Ākau**
- **South** is called **Hema**



The four cardinal directional points divide the circle of the horizon into **four quadrants**, which have been given names associated with wind directions.

FOUR QUADRANTS

- **Ko'olau** is the **NE** quadrant, named for the windward side of the islands, the direction from which the NE trades, the most constant of the Hawaiian winds, blow.
- **Malanai** is the **SE** quadrant, named for "a gentle breeze" associated with Kailua O'ahu (SE part of the island) and Koloa, Kaua'i (S by E part of the island).
- **Kona** is the **SW** quadrant, named for the leeward side of the islands, away from the NE trades; winds blowing from the south or SW are called kona.
- **Ho'olua** is the **NW** quadrant, named for a strong north wind, generated by storm systems passing north of the islands.



SEVEN STAR COMPASS HOUSES

Each quadrant contains seven directional points and houses with the following names. The names were devised by Nainoa Thompson, the first Hawaiian in over 500 years to practice long- distance, open-ocean navigation without instruments:



Lā: "Sun"; the sun stays in this house for most of the year as it moves back and forth between its southern limit at the Tropic of Capricorn (23.5 degrees S) at Winter Solstice to its northern limit at the Tropic of Cancer (23.5 degrees N) at Summer Solstice.



'Āina: "Land"; This house between 17 degrees and 28 degrees on the horizon from east and west can be remembered because Hawai'i ('Āina, or Land) is at 21 degrees N latitude and Tahiti ('Āina, or Land) is at 18 degrees S latitude.



Noio: named for the Hawaiian tern, which helps a navigator find islands because it flies out to sea in the morning to fish (range about 40 miles) and returns to land at night to rest.



Manu: "Bird"; the four houses of Manu, midway between the four cardinal directions, can be seen as the points of the beak, tail, and outstretched wing-tips of a bird; the bird is the traditional Polynesian metaphor for the canoe. On early voyages to Tahiti, the Hōkūle'a sailed in the direction of Manu Malanai, with its wings and Manu Ko'olau and Manu Kona, and its tail pointed back at Manu Ho'olua.



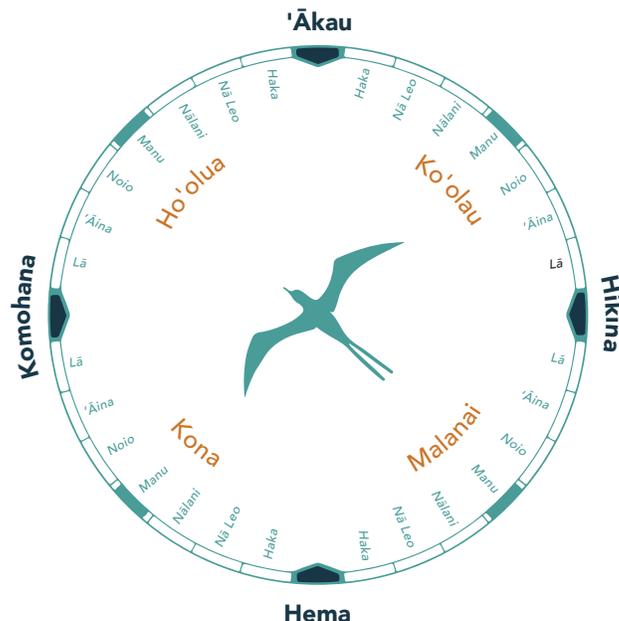
Nālani: Named for the brightest star in this house, Ke ali'i o konai ka lewa (Canopus), which rises in Nālani Malanai and sets in Nālani Kona.



Nā Leo: "The Voices," referring to the voices of the stars speaking to the wayfinder.



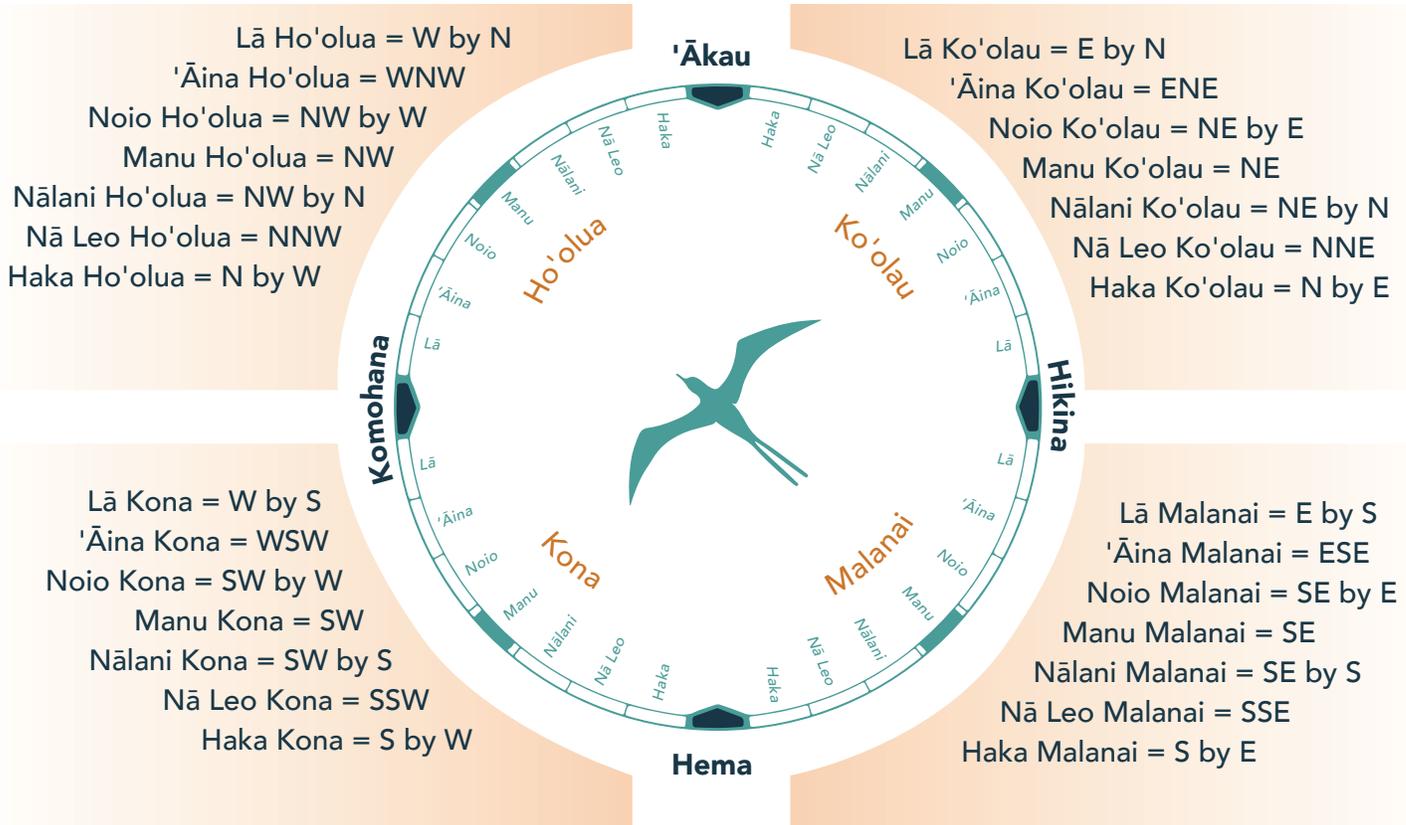
Haka: "Empty"; named for the relatively empty skies around the north and south celestial poles.



(Information about the name of these houses is from Will Kyselka's Ocean in Mind 96-97)

28 COMPASS DIRECTIONS

Seven directional houses in each of the four quadrants combine to give 28 compass directions between the four cardinal points.



IDENTIFYING DIRECTION

A star that rises in a house on the NE horizon travels across the sky, and sets in a house of the same name on the NW horizon; A star that rises in a house on the SE horizon travels across the sky, and sets in a house of the same name on the SW horizon. Thus, the rising and setting points of stars are clues to direction. Recognizing a star as it rises or sets and knowing the house it rises or sets in gives you a directional point by which you can orient the canoe and head in the direction you want to go.

For example, if the sun is rising due **Hikina** (East) and the sun is directly behind the canoe, the canoe is pointed toward **Komohana** (West).

Ocean swells are also used to hold a course; ocean swells travel from one house on the horizon to a house directly opposite on the horizon (180 degrees away), passing under the canoe, which is always at the center of the compass.

For example, if the ocean swell is traveling from **Komohana** (West) towards **Hikina** (East) and the ocean swell lifts the front of the canoe and the canoe goes over the swell, the canoe is pointed toward **Komohana** (West).

Be sure to check out other resources at: <https://www.ksbe.edu/digital/holomoana/>



TRY IT OUT!



ACTIVITY IDEA

Extension activities:

- With your 'ohana view the sunrise and/or sunset and teach your 'ohana the 4 main compass directions in 'Ōlelo Hawai'i and English.
- Teach your 'ohana how to identify the 32 houses of the Hawaiian Star Compass
- Teach your 'ohana how to use the Hawaiian Star Compass to identify direction.



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SHOW US WHAT YOU DID!



Send us a photo of your family using the Hawaiian Star Compass at your home for a chance to be featured on the Holomoana website!
Email it to ittraining@ksbe.edu.