



Activity #1

Climate Connections

● ● ● In Advance *Student Assignment*

- Assign the Student Page “Climate Connections” (pp. 7-9) as homework.

● ● ● Class Period One *Climate Connections*

Materials & Setup

- ‘*Auheha wale ana oe - E ka ua ‘Ulalena*’ acetate (master, p. 6)
- Overhead projector and screen
- Map of Maui

For each student

- Student Page “Climate Connections” (pp. 7-9)

Instructions

- 1) Show the “‘*Auheha wale ana oe - E ka ua ‘Ulalena*’” acetate. Have one or more students read the Hawaiian chant, then read the English translation. Ask the class why they think Hawaiians would be strongly connected to the rains and weather of specific places. Ask if they know anyone who is a keen weather observer.
- 2) Ask students to share some of their responses to the questions on the “Climate Connections” homework assignment. Begin with the place names and their meanings. Locate each place on the map as you discuss it. Then ask several students to share their rain descriptions, and locate the places they describe on the map as well.
- 3) Allow students the rest of the class period to write on one or more of the journal topics suggested below.

Journal Ideas

- Why was it important for early Hawaiians to observe, understand, and be able to predict the weather?
- Why is observing and understanding—and even predicting—the weather important to you and the activities you do?
- Do you have friends or family who live in more severe climates than Hawai‘i? How is knowing about the weather important to them?
- Have you ever lived in a place where it rained a lot? What was it like to live there?

Assessment Tools

- Student Page “Climate Connections”
- Participation in the class discussion
- Journal entries



Photo: Howard D Terry

'Auhea wale ana oe - E ka ua 'Ulalena

*Auheha wale ana oe
E ka ua 'Ulalena
Kahiko mai la i uka
I ka nani o Pi'iholo
Ua like me Ko'opua
Noho mai la i 'Awalau
Au a'e nei ka mana'o
E pili me ke aloha
Aloha o Makawao
I ka ua Ūkiukiu
He tiu na ka Nāulu
I ke tula o Kama'oma'o
O ka loa ka'u i ana
I ka oni o ka lihilihi
Iihia iho nei loko
I ka ukana o ke aloha
Haina mai ka puana
Makaihiana he inoa.*

Oh where are you,
'Ulalena rain,
Beautiful one of the upland
The beauty of Pi'iholo
Is like the clouds
That nestle over 'Awalau.
The mind reaches out
To be near the loved ones,
Beloved is Makawao
With its Ūkiukiu rain,
It is a scout for the Nāulu rain
On the plain of Kama'oma'o
I measured its length
With a single glance,
A thrill possesses me
With this thing called love,
This ends my song,
In honor of Makaihiana.

—Bishop Museum Library



Climate Connections

Dependent upon their environment, early Hawaiians were great and careful observers of weather and climate. Understanding seasonal patterns of temperature, wind, and rainfall, linked with lunar cycles, helped Hawaiians know when to plant and harvest different crops, when and where to fish, and even where and how to build their homes.

In Hawaiian society, *kilo lani* were the seers who were able to predict the future by looking at the sky. Among their powers was the ability to look at the stars and moon, the atmosphere, the ocean, and what was happening on land and tie it all together.

Kilo lani and their students (*haumana*) were astute observers of the heavens and the weather, and over time built up personal storehouses of knowledge and experience about the connection between the two. They also relied on, and added to, the body of local weather knowledge that was passed on orally from generation to generation. Unlike the modern-day weather forecaster who can consult computers and satellite images, the *kilo lani* drew their knowledge from their surroundings and carried it in their heads.

Many Hawaiians were regional experts in the folklore and weather patterns of their home place. If you know someone who fishes a lot or farms or surfs, you probably know a modern-day regional weather expert. You may even be one yourself! Some people are good at observing weather patterns and knowing what those signs mean for weather conditions in the coming days.

Hawaiians have many names for the wind and rain, depending on characteristics such as temperature, how steady it is, where it comes from, and so forth. From ancient times, Hawaiians have given names to each variety of rain and wind that is particular to each part of the islands. If you live on Ukiu Street in Makawao, for example, you have personal experience with the cold, wet *ukiu* wind that is unique to Makawao.

Weather and water were important elements in the lives of early Hawaiians. This is reflected in the names of many places on the Hawaiian Islands. *Mauna Kea*, for example, means “white mountain.” It is named for the snow that often caps the summit, especially in winter. *Waikamoi*, the name of a stream that flows out of the rain forest on Haleakalā is interpreted by many people to mean, “water of the *mōi taro*.”

For fun...

Hawaiian words often have more than one meaning.

- Look up *kilo lani* in the Hawaiian dictionary, as well as *kilo* and *lani* separately. What different possible meanings of *kilo lani* can you come up with using the definitions offered in the dictionary?
- Talk to your parents, grandparents, aunts, or uncles to find out how they define *kilo lani*.
- What words have similar meanings in the English language?

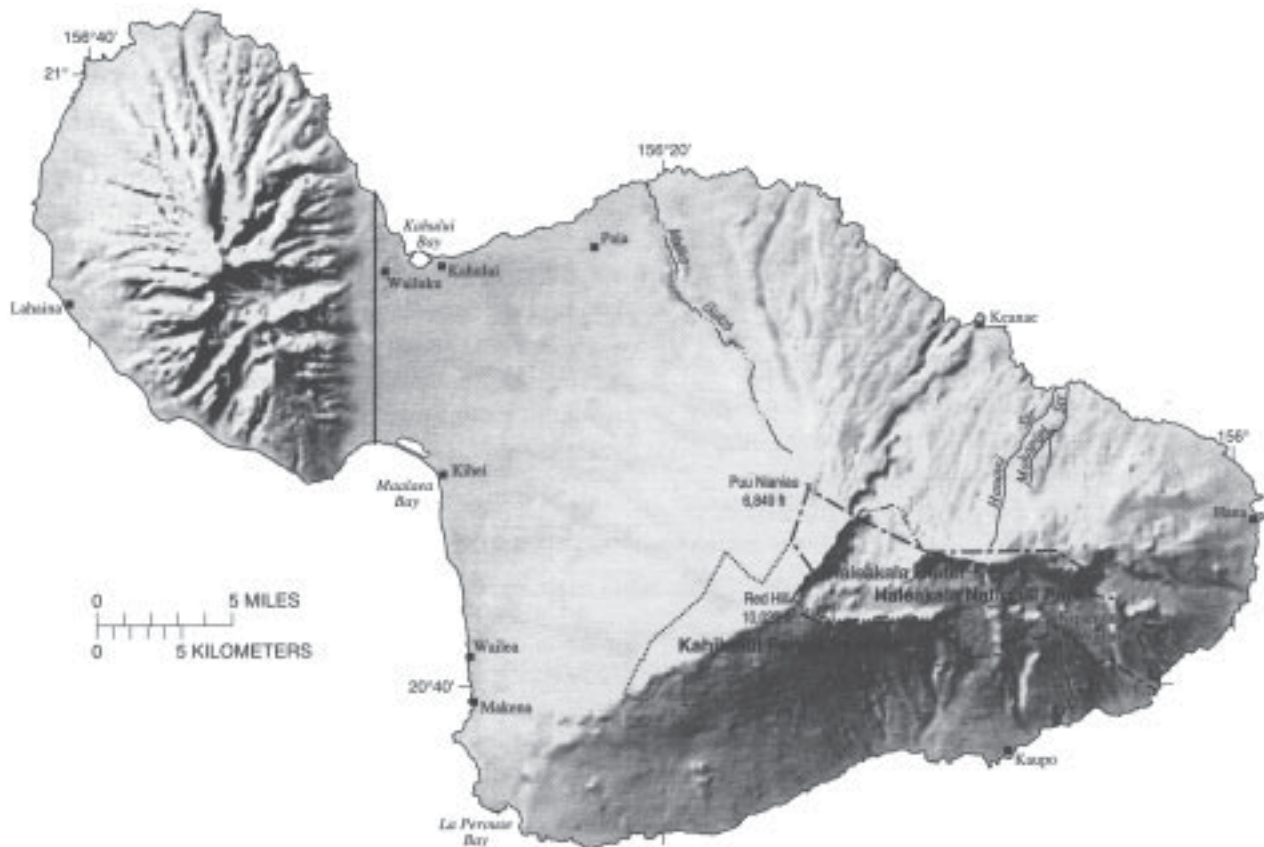


In order to answer some of the questions below, you will need a map of Maui or Haleakalā National Park and a Hawaiian dictionary.

- 1) Using a map of Maui or Haleakalā National Park, find at least one place that is named for water or something associated with weather such as wind or clouds. You can use the Hawaiian dictionary to help you. Your school library may have helpful books such as:
 - Mary Kawena Pukui, Samuel H. Elbert, and Esther T. Mookini, *Place Names of Hawaii*, University of Hawaii Press, Honolulu, 1974, and
 - Kert, Harold Winfield, *Treasury of Hawaiian Words in One Hundred and One Categories*, Honolulu, Masonic Public Library of Hawai‘i, 1986.

What is the name of the place? What does it mean?

- 2) On this map of Maui, place a dot where this place is located. Does the name of the place seem to tell you anything about that part of Maui? If so, what?



Shade, P. J., Water Budget of East Maui, Hawaii, U.S. Geological Survey, Honolulu, 1999.



- 3) Think of a place that you are familiar with or that is near where you live. Write a paragraph, poem, or chant describing the rain that typically falls there. Include how hard the rain is, what direction it usually comes from, the time of day it generally falls, its temperature, or other characteristics that help to identify it. In your writing, incorporate at least one rain name in Hawaiian from the glossary below or another source.

Hawaiian Rain Names

'awa — Fine rain or mist

'awa'awa — Fine, misty rain that frequently can be cold

hau — Snow, ice, frost

he ua lanipali — Shower reaching to heaven, i.e., a very heavy shower

ho'okili — Fine, gentle rain, a form much beloved

ililani — Unexpected rain; rain from a seemingly clear sky

kahakiki — To pour down violently with a roar, as rain or rushing water

kēhau — Mist; cold, fine rain floating in the air, usually in the mountains

kēwai — Mist merging with rain some distance off

kili — Fine, light rain; peal of thunder; raindrops

kili hau — To fall gently, as a cold, soft shower; to stop falling and fade away, as rain at the end of a shower

ki'o wao — Cool, mountain rain accompanied by wind and fog

ko'iawe — Light moving shower

koko — Falling rain with light looking reddish as it shines through

lihau — Gentle, cool rain believed to bring luck to fishermen

ma'au — Rain in the upland forest; rain forest

nākikiki'i — Slanting rain

nāulu — Sudden shower of fine rain without seeming benefit of cloud or clouds

noe — Mist or fine rain, spray or fog; to sprinkle a little, as fine rain; to be damp, as fog; to rain, yet be scarcely discernible

pākakū — Rain falling in large drops

pakapaka — Heavy shower of large rain drops; spattering noise that such drops make on a hollow or dry substance, as on dry leaves

pāki'o — Showery rain

pāki'oki'o — Showery rain; to rain in short showers and often

pīpinoke — To rain continuously

pulepe, pulu pē — To rain heavily; to be drenched

ua 'awa — Chilly rain, cold and bitter

ua hānai — Rain that nurtures the earth

ua hō'okina — Continuous rainfall

ua lanipili — Several-days downpour; heavy rain, cloudburst

ua poko — Short rain

ua po'o nui — Light, steady rain (literally, big-head rain)

— *Kert, Harold Winfield, Treasury of Hawaiian Words in One Hundred and One Categories, Honolulu, Masonic Public Library of Hawai'i, 1986, pp. 380-382.*

