DISTANCE LEARNING GUIDES

ʻIMI PONO KA ʻĀINA

Kilo Lāʻau
Plant Identification

GUIDING QUESTIONS

Why is it useful to identify plants? What resources can I use to identify plants?

WHAT WE'LL LEARN

Have you ever come across a plant and wanted to know more about it? What's its name? Where is it from? What can it be used for? In this activity, we'll share some useful plant identification resources. You'll be able to find the names of plants, characteristics you can use to identify them, and more! These resources can be helpful to kilo lāʻau, or closely observe plants, when you're hiking on a trail, working in a garden, or exploring your neighborhood.

TIME

1 hour

MATERIALS

- Smartphone or tablet device with camera
- "List of Plant ID Apps and Resources" on page 3 of this guide
- "E Aʻo Mai, E Aʻo Aku" activity on page 4 of this guide
- Learning journal or blank pieces of paper

GET STARTED

Answer the following questions in your learning journal or on a piece of paper. These are to get our thoughts going and see what we already know, so there are no right or wrong answers!

- **Why is plant identification useful to you? What kinds of things do you want to know and find out about different plants?**
- **Why is it important to correctly identify plants?**
- **What are some characteristics you can use to correctly identify plants? Think of parts of plants that stand out to you.**
- **Name a plant that you already know. How did you find out it's name and characteristics?**

If you can, share your answers with a family member or friend, and ask them to answer the questions too.

EXPLORE

DOWNLOAD →

Check out our "List of Plant ID Apps and Resources" on page 3 of this guide. Download at least one app to your device. Keep in mind, there are thousands of plants throughout the world, so the apps are not perfect and don't always have the correct answer.

It's always a good idea to cross reference with other resources. Check out the list of online Hawaiʻi plant databases and field guide books as well.

TRY IT OUT! →
Explore the plants in your backyard or neighborhood! Go outside and use one or more of the apps to help you identify the names of a few plants. See what other information comes up on your particular plants. Once you have a name and some details for each plant, double check them by looking them up using the list of online or field guide resources on page 3 or use a general search engine like Google.

ACTIVITY

LEARN & TEACH →
Find a plant in your yard or neighborhood that you don't already know the name of or want to learn more about. Use the plant ID apps and resources to find out more about it. Then follow the prompts on the "E A ʻ o Mai, E A ʻ o Aku" worksheet on page 4 of this guide to organize your research. Once you have gathered all of the information about the plant, teach a family member or friend what you learned. Take them outside to visit the plant and share each fact or observation about your plant from your notes. Make it interesting and engaging too! Point out different parts of the plant, interact with the plant, invite them to use their senses (like touch, smell, sound). You can even quiz them after to see what they remember!

REFLECT

Answer these questions in your learning journal or piece of paper.

- **What are some tools you can use to help you identify plants? Which resource tool did you find most helpful?**
- **Why is it important to correctly identify plants?**
- **What new information about plants did you find useful or interesting?**

If you can, share your answers with a family member or friend.

EXPLORE MORE

SCAVENGER HUNT →
Get to know the plants in your own backyard or neighborhood with this fun scavenger hunt! This activity links up with our "He ʻ Ōiwi ʻ Oe" distance learning guide focused on distribution status terms. Go check out that guide if you need more details on these terms!

Using the " ʻ Imi ā Loa ʻ a" worksheet on page 5 of this guide, go out into your yard or neighborhood and search for an example of a plant in each distribution category (endemic, indigenous, etc.). When found, put a check mark in the small box in the upper left corner then draw a quick sketch of the entire plant or a part of the plant (leaf, flower, seed pods) in the large box. If you're unsure about the distribution status of a plant, use the resources found in this activity guide to help you find it. Reference the "List of Polynesian Introduced Plants" on page 6 of this guide for help finding a polynesian introduction.

Plant ID Resources

Apps

Seek by iNaturalist

Seek is a fun tool that allows curious naturalists of all ages to earn badges and participate in challenges to observe organisms by taking photos on your smartphone or tablet. Seek is connected to iNaturalist‘s database of observations and is a way to share about plants and animals found in your local community. No login is required for Seek.

Plant Net

Plant Net is very similar to Seek/iNaturalist, but linked to another type of database called Floris’Tic. It’s all about taking a picture and letting image recognition software do its job at identifying that flower, tree, or any other plant you’ve captured. It’s easy to use and gives lots of information if the species is found. This app can have a hard time identifying plant species correctly and might not always have an answer, so be cautious and check with other sources.

Google Lens

Google Lens is a feature found within the Google Photos app that anyone with a Gmail account can access. It’s great for snapping a photo of anything you’re curious about or want to know more information. Similar to both Seek iNaturalist and Plant Net, Google Lens is designed to bring up relevant information related to objects it identifies using visual analysis in your photo. Like the other apps, it might not always be correct, but it’s usually pretty close.

Websites + Online Databases

Bishop Museum Ethnobotany Database

Database of native and non-native plants in Hawai‘i, detailing uses of plants, plant-related ‘ōlelo no‘eau, and other enthnobotanical information.

Native Plants Hawai‘i

Database of plants native to Hawai‘i, including photos, plant names (Hawaiian, common, scientific), characteristcs, distribution, uses, and propagation.

UH CTAHR Master Gardener Resources

Information on native and introduced plants found in Hawai‘i, with a focus on cultivated species.

Field Guide Books

Check your local library or bookstore for these and other field guides!

- *A Pocket Guide to Hawai‘i’s Trees and Shrubs* by Douglas Pratt
- *Hawai‘i’s Plants and Animals: Biological Sketches of Hawai‘i Volcanoes National Park* by Charles P. Stone and Linda W. Pratt
- *Amy Greenwell Garden Ethnobotanical Guide to Native Hawaiian Plants and Polynesian-Introduced Plants* by Noa Kekuewa Lincoln

E A'o Mai, E A'o Aku

Learn + Teach

Hawaiian or Common Name:

Scientific Name (Genus, species):

Distribution Status (**Native:** Endemic, Indigenous, or **Introduced:** Polynesian Introduced, Exotic, or Invasive) See our "He ʻŌiwi ʻOe?" Activity Guide for more details on distribution status. Reference the "List of Polynesian Introduced Plants" on page 6 of this guide if needed:

What is it's growth form? (Tree, shrub, groundcover, vine, etc.)

What characteristics helped you identify it or make this plant unique?

What resource(s) did you use to identify it?

What is an interesting fact you learned about this plant? (i.e. What can it be used for? Where's it native to?)

Where else is this plant growing nearby or where have you seen it before?

Are there any similar plants nearby? If so, what features can you use to tell them apart?

'Imi ā Loa'a

Scavenger Hunt

☐ ENDEMIC

☐ INDIGENOUS

☐ POLYNESIAN INTRODUCED

☐ INVASIVE

☐ EXOTIC

List of Polynesian Introduced Plants (Canoe Plants)

Hawaiian Name	Vernacular Name(s)	Scientific Name
ʻApe	Elephantʻs ear	*Alocasia macrorrhizos*
ʻAuhuhu	None	*Tephrosia purpurea*
ʻAwa	Kava	*Piper methysticum*
ʻAwapuhi	Shampoo ginger	*Zingiber zerumbet*
Hoi	Bitter yam, air potato	*Dioscorea bulbifera*
Ipu	Bottle gourd	*Lagenaria siceraria*
Kalo	Taro	*Colocasia esculenta*
Kamani	Tamanu, Alexandria laurel	*Calophyllum inophyllum*
Kī	Ti	*Cordyline fruticosa*
Kō	Sugarcane	*Saccharum officinarum*
Kukui	Candlenut	*Aleurites moluccana*
Maiʻa	Banana	*Musa*
Niu	Coconut	*Cocos nucifera*
Noni	Indian mulberry	*Morinda citrifolia*
ʻOhe	Bamboo	*Schizostachyum glaucifolium*
ʻŌhiʻa ʻai	Mountain apple	*Syzygium malaccense*
ʻŌlena	Turmeric	*Curcuma longa*
Pia	Polynesian arrowroot	*Tacca leontopetaloides*
ʻUala	Sweet potato	*Ipomoea batatas*
Uhi	Yam	*Dioscorea alata*
ʻUlu	Breadfruit	*Artocarpus altilis*
Wauke	Paper mulberry	*Broussonetia papyrifera*