



KILO MANU BIRD IDENTIFICATION



GUIDING QUESTION

What resources and methods can I use to identify birds?

WHAT WE'LL LEARN

Birds are all around us, living in the same habitats that we do, from neighborhoods and cities to coastlines and forests. That makes birds some of the easiest wildlife to observe and connect with.

In this activity guide, we'll explore the Merlin Bird ID app, an excellent resource to help you identify birds. You'll explore and identify birds near you using its step-by-step guide. You'll also be able to see photos and listen to calls or songs of different birds that can help you with identifying them. We'll get outside to kilo manu, or observe birds, and we've even got a super fun bird BINGO to test your kilo manu skills!

TIME

1 hour

MATERIALS

- Smartphone or tablet (to download the Merlin Bird ID app)
- "Kilo Manu" worksheet on pages 3 & 4 of this guide
- Learning journal or blank pieces of paper
- Binoculars (optional)

GET STARTED

Birds are all around us! Before you begin this activity, think about the birds you commonly see. Answer the following questions in your learning journal or on a piece of paper. Remember, there are no wrong or right answers!

- **Where do you often see birds outdoors?**
- **What are those birds doing?**

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

EXPLORE

WATCH →

[Introduction to Merlin Bird ID--Free app from the Cornell Lab](#)



DOWNLOAD →

Download the Merlin Bird ID app to your device. You'll need to create a login username and password. Add the US: Hawaiian Islands bird pack. (Optional if you don't have storage space on your device or you have a poor connection.) This package is a list of 199 native and non-native birds found throughout Hawai'i.

PLAY →

Play with features on the app. Start with the “Explore Birds” option from the main menu. You will see a list of birds from the Hawaiian Islands Bird Pack organized by type of bird. Or you can click on the icon on the top right to refine your bird list by “likely birds.” You can set your location by allowing the app to access your location or entering it manually. Click on a bird to access more details, including photos, sounds (usually with a spectrogram to help visualize the sound), and map (where it’s found).

ACTIVITY

KILO MANU →

Test out the “Bird ID” function on the app. Go outside and look for a bird to ID that you don’t already know. The app will ask you questions and guide you step by step to help you identify that bird. This tool works really well!

Next, use the “Kilo Manu” activity on pages 3 & 4 to guide your observations. Follow the instructions on page 3 and record your data on page 4.

REFLECT

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

- **What birds were you able to identify using the Merlin Bird ID app?**
- **What tools on the app helped you identify those birds? (Pictures? Sound recordings? Location?)**

Share the Merlin app with a friend or family member. Show them photos of the different birds you saw and play their calls or songs.

EXPLORE MORE

MANU BINGO →

Go to the “Kilo Manu BINGO” playing board on pages 4 & 5 of this guide. Head outside to search for birds displaying these behaviors, and cross them off when you find one. Use the descriptions of behaviors on page 5 to learn what each one looks like. Try to get M-A-N-U by getting four-in-a-row vertically, horizontally, or diagonally. Or go for blackout for a true challenge!

RECOMMENDED BOOKS →

Check your local library or bookseller for these field guides:

- *Hawai‘i’s Birds* by Hawai‘i Audubon Society
- *A Photographic Guide to the Birds of Hawai‘i: The Main Islands and Offshore Waters* by Jim Denny
- *A Field Guide to the Birds of Hawaii and the Tropical Pacific* by H. Douglas Pratt

KILO MANU INSTRUCTIONS

To kilo manu is to observe birds. (Kilo = observe, Manu = winged creatures) Follow these instructions to help you kilo manu and fill out the data sheet on the next page.

1. Choose a spot in your yard or neighborhood where you can easily view an area that birds frequent (i.e. facing trees or bushes, electric lines, open lawn). Plan to spend at least 10 min sitting in silence. You can bring a chair or something else to keep you comfortable!
2. Go to the data sheet on the following page and begin by recording your start time and the current weather conditions (i.e. breezy, sunny, cloudy, rainy, etc.).
3. Use your sight to locate and observe a manu. Binoculars are helpful, but not necessary. Fill out as much information as you can for the columns labeled with green (this is the same information used for the Merlin Bird ID app). Refer to the Quick Guide at the top of the page to help you fill out the columns. Use the Merlin Bird ID app “Bird ID” function to identify your manu and fill out the columns labeled in gray. Under the “Identifying Features” column, read the bird description in the app and list characteristics that helped you identify the bird (i.e. Spotted Dove: black and white spotted neck.)
4. As best as you can, record the number of each manu species that you kilo. You can use tally marks to keep track and count the total at the end. It may be difficult to distinguish between individual manu, so it’s ok if you count the same one more than once. Just try your best!
5. Spend at least 10 minutes in your kilo spot. When you’re finished with your kilo, record the end time.

HOW TO USE BINOCULARS:

WATCH →

[How to Use Binoculars | Birds of North America](#) (2 mins)



Remember: Keep your eyes on the prize, bring the binoculars to your eyes!

HELPFUL TIPS:

- Manu are most active in the morning (within 3 hours after sunrise) and early evening (before sunset).
- Manu are least active in rainy and extremely windy weather so avoid doing your kilo activity during these times if possible.
- Use binoculars if you have them!
- Observe while sitting still and staying quiet. Movement and noise can scare away manu.
- You can try moving to a different location in your yard or neighborhood to get a different view, after you have sat in one place for at least 10 minutes.
- Try this activity in different places that are open to the public. Head down to the coastline or wetland areas to see waterfowl, shorebirds, and seabirds. Go for a hike up mauka to see forest birds. The species of birds you see depends largely on what habitat you are in!
- Wear non-colorful or drab clothing to avoid attracting or scaring away manu.

KILO MANU SHEET

Quick Guide

Start time:

End time:

Weather conditions:

Size

- Small (Sparrow-sized)
- Medium (Robin-sized)
[Myna same size as a Robin]
- Large (Crow-sized)
- X-Large (Goose-sized or larger)

Behavior

1. Eating at a feeder
2. Swimming or wading
3. On the ground
4. In trees or bushes
5. On a fence or wire
6. Soaring or flying

Bird	Size	Colors	Behavior	Estimated Number	Possible ID	Identifying Features
1						
2						
3						
4						
5						

KILO MANU BINGO

M

A

N

U

COURTSHIP
DANCE

SINGING

BATHING
IN PUDDLE OR
DUST

RED BIRD

PERCHED ON A
WIRE

YELLOW BIRD

PREENING

WALKING/
HOPPING ON THE
GROUND

BROWN & BLACK
BIRD

TERRITORY
DEFENSE

SOMETHING
IN ITS BILL

FEEDING

ROOSTING
(RESTING)

FLYING

GRAY BIRD

PERCHED
IN A TREE

KILO MANU BEHAVIOR DESCRIPTIONS

Bathing (water/dust bath) – Keeping clean is important for health and well-being. The reasons a bird takes a water or dust bath may not be well understood, but we do know many birds bathe. Some studies suggest that bathing plays an important role in feather maintenance.

Flying – Many, but not all, birds fly. Have you ever slowed down to actually watch how different birds fly? Some birds are quick, agile, and acrobatic in flight like fighter planes while other birds are slow, awkward, and clumsy flyers more akin to massive cargo aircraft. How easy is it for a bird to take to the skies? Some can effortlessly bounce straight into flight while some large waterfowl must get a running start with much effort before eventually lifting off.

Gathering Nesting Materials – Birds make their nests from a variety of materials including grass, spider webs, moss, sticks, and even mud. Try to find a bird constructing a nest. Count the number of trips it makes to get an idea how much work it is to build a nest. Make your own nest using things from your yard.

Perching – Birds’ feet have tendons that force the toes to close when they sit down, automatically gripping the branch they are resting on (stay apparatus). This is how they can sleep without falling off the branch.

Preening – Just like you brush your hair to remove tangles and keep it in the best condition you can, birds “preen” their feathers to keep them aligned and in the best condition they can. After all, a bird only grows new body feathers twice a year, and only gets new flight feathers once a year!

Resting (Roosting) – Birds put out a lot of energy each day and need a few hours to relax. This one may not be obvious as resting birds can easily become a meal for others so you may have to look carefully to find one hiding out when sneaking in a nap.

Singing – Bird songs have been referred to as the music of the forest and are especially prevalent in the spring and summer. Males sing to impress females and to establish and defend their territory.

Territory Defense – Resources in a territory are not unlimited and birds defend their territory to preserve access to food and nesting sites. See if you can find fighting birds in your yard. Who is fighting? Are they the same or different species? What are they fighting over?

Walking – while it may not sound interesting, some birds are actually hunting when walking and can quickly accelerate to catch prey. Can you spot what the bird wants to eat before it does?