# Lesson Plan: Beginner Birding

**Grades:** Elementary and high school
**Duration:** 30 minutes or longer
**Setting:** Outdoors at a wetland, if accessible. If not, consider another outdoor space where you can easily see birds like a park or schoolyard.

## Learning objectives

- Practice listening and observational skills to find, observe and describe birds.
- Learn field markers to identify birds.
- Develop confidence in using binoculars.
- Recognize that wetlands are important habitats for birds to nest, feed, rest and raise their young.
- Participate in citizen science by reporting bird sightings on an app like iNaturalist *(optional)*.

## Background

Birds are beautiful and interesting animals that come in many sizes and colours. Birding is a great way to connect students with nature and introduce them to the importance of wetlands and other habitats as a home for animals. Birds rely on wetlands to find food, rest during migration, make their nest and raise their young.

Students who spend time outdoors birding can learn about local birds and habitats, enjoy a new hobby and develop an interest in conservation. They will also build skills that help identify birds and understand bird behaviour, like observation, patience, concentration, teamwork and perseverance.

## Materials

- Binoculars
- Field guides of birds in your area
- Journal and pen, or electronic device to record observations
- Spotting scope and tripod stand *(one for group, optional)*

**Did you know?**

- **A recent study** found that seeing or hearing birds improved people's mental well-being for up to eight hours.
- **Another study reports** that bird-watching is more effective at improving mental health and reducing stress than simply going on a nature walk.

## Pre-Activity

Planning a wetland field trip to go birding with your students? If so, we recommend you check out our **Wetland Field Trip Guide**. We also recommend discussing the following questions with your students to set the scene for the activity.

**What is a wetland and why are wetlands important ecosystems?**

- Wetlands are wet areas of land that have poorly drained soils and aquatic vegetation. They can be found across the country in cities, in the prairies, in the boreal forest, along coastlines and in the tundra. The different types of wetlands are bogs, fens, marshes, swamps and shallow open-water wetlands.
- Wetlands are important ecosystems because they are home to millions of animals and plants including at-risk species, they filter and clean water, protect against floods and droughts, mitigate the effects of climate change, protect coasts from erosion, and are a great place to visit to enjoy the outdoors and connect with nature.
- Wetlands provide important breeding and migrating areas for waterfowl like ducks, geese and swans.

**What birds live in wetlands and what roles do they play?**

- Many birds live in wetlands, such as:
  - Waterfowl (ducks, geese and swans). Look for diving ducks like the canvasback and common goldeneye, and dabbling ducks like the mallard and green-winged teal.
  - Wading and shorebirds (e.g. great blue heron, spotted sandpiper)
  - Birds of prey (e.g. osprey, bald eagle)
  - Songbirds (e.g. marsh wren, tree swallow)
  - Gulls, terns and others (e.g. ring-billed gull, belted kingfisher)

- Some birds eat plant seeds and release these seeds in their droppings, helping plants grow in many different wetlands and other ecosystems. Migratory birds connect distant wetlands thanks to their seed-containing droppings.

- Birds are nature's perfect bug controllers – they eat many insects and other invertebrates. They can also help manage pests and invasive species.

- Birds and bird eggs can make a great meal for predators like red foxes, raccoons and coyotes.

**Why can male and female birds of the same species look different?**

- For some bird species, like the mallard, the male will have brighter colours or patterns compared to the female. Males tend to use their bright colours to attract females during the mating season. The female tends to protect the eggs in the nest. If the female was as colourful as the male, a predator could more easily spot her. Since she blends into the environment and is well camouflaged, she better protects herself and her family.

**What is birding etiquette and why is it important?**

- Birding etiquette is a set of guidelines that emphasize the respect of birds, other wildlife and their environment, as well as fellow birders. Here are some key guidelines to follow:
  - Minimize noise and approach birds slowly so as not to scare the birds away.
  - Keep a safe distance from birds so as not to disturb their normal behaviour, especially during nesting season.
  - Stay on designated trails to minimize disturbance to vegetation and nesting sites.
  - Avoid using recorded bird calls or mimicking sounds to attract birds, as this can be confusing and stressful for them, especially during breeding season.
  - Avoid feeding bread or other foods that can be harmful to a bird's health.
  - Leave no trace – avoid littering and damaging the environment.

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Before going outside to observe birds, we encourage you to prepare students so they're somewhat comfortable with binoculars and know what to look for in the field. Here are some tips to make your birding experience successful:

- **Field markers:** Show pictures or field guides with local bird species that students might encounter. Practice noticing field markers that help with identification, such as size, colour and behaviour.

- **Practice:** Have the students practice using binoculars before going birding. You may want to show a video on how to use binoculars. Getting students comfortable with naming the important parts of the binoculars (i.e. eye cups, barrels, focus wheel and diopter) and getting them to focus properly will help develop confidence in using them and maximize their time while they're out birding.

- **Observations:** Set expectations for recording observations. If students are filling out an observation journal, review what field markers to look for in advance (e.g. size, colour, behaviour).

- **Pictures:** If students will be taking pictures to contribute to citizen science, explain what makes a quality picture and what doesn't. Good bird photos should show the colour and shape of the bird, details of the face and a bit of scenery showing the location. A blurry photo, taken from far away or that doesn't show details may make it too hard to identify.

## Program

Introduction *(5-10 minutes)*

1. Land acknowledgment – find out the history of the land you are on and share that with your students. Explain that all treaty people, Indigenous and non-Indigenous, must be respectful of the land. Have they heard the word "respectful" before? What do they think it means to be respectful of the land?

2. Explain that the students are going to become bird watchers and look for some of the many birds that share this space. Emphasize the importance of being present and using the senses of hearing and sight to spot and observe birds. Go over birding etiquette guidelines, field markers and common bird species that you might encounter.

Birding *(20 minutes or longer)*

1. Pass out one set of binoculars to each student or each group.

2. Have students put the string around their necks so that if they let go of the binoculars, they won't fall into the wetland or get damaged.

3. Show which side of the lenses to look through so the students know how to orient the binoculars.

4. Demonstrate how to focus with the middle wheel or main dial, adjust to the distance between the eyes until a single middle circle is achieved, and adjust the eye cup depending on if someone wears glasses (fully retracted) or doesn't wear glasses (fully extended). This may vary depending on the binoculars you are using.

5. Find a landmark and label it twelve o'clock. Students can use this as a reference point to direct their classmates in spotting new birds they see. (E.g. "Hey, Great blue heron sighted at 3:00!")

6. Optional practice: Place an object at a specific location and ask the students to find it with their binoculars. This helps them get familiar with using binoculars before looking for birds.

7. As students are birding, have them point out any interesting bird behaviour they notice (e.g. feeding, nesting, preening, courting, territorial defence, songs or calls).

8. If using a scope, have it set up and focused on an interesting bird. Ask the students to look through the scope one at a time. It's a good idea to have an adult stationed at the scope to help students with their observations.

9. If you'll be contributing to citizen science, remind students to try and take quality pictures.

Wrap-up *(5-10 minutes)*

1. Go over the species that were observed by the group and congratulate the students on their great birding skills.

2. Review how wetlands make important habitats for birds and the important roles birds play in an ecosystem.

3. Make sure everyone puts binoculars away properly.

## Post-Activity

Consider the optional activities below to help deepen your students' connection to nature, birds and wetlands.

- Post your class's bird and other wildlife pictures on iNaturalist to contribute to citizen science. Between March and October, you can post bird observations on the **DUC Migration Tracker** project. Want to make this a competition between classes? Look into creating your school's very own **BioBlitz**!

- Build birdhouses and/or duck nest boxes. Research birds that live around you and refer to guides on how to build and clean out boxes. Before moving forward with this project, make sure you have permission to install houses and or next boxes and consider who will be responsible for installing and cleaning the boxes.

- Encourage creativity with a bird art project to showcase their beauty and bring awareness to local bird species. **Click here** to read an inspiring example.

- Allow students to journal and reflect on how being in nature made them feel. Did they notice a change in their mood before and after being in nature? How did observing birds feel? Did they feel a sense of connection to the natural world? How would they feel if the ecosystem they visited was threatened by human activities, such as habitat alteration or destruction, climate change, invasive species, pollution or species overexploitation? What could they do individually, with their school and in their community, to help protect this ecosystem?

Have questions? Reach out to us at **education@ducks.ca**.

You can find other resources for educators
at **ducks.ca/resources/educators**

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