Bird Point Count Observations

Big Idea: Landscapes and ecosystems are full of life and sounds, some of these are contributed by birds (AVES). With the use of visual and auditory data we can conceptualize and hypothesize some of the different bird species within these landscapes and ecosystems which will help us understand these biomes in a more holistic way.

Essential Questions:

- What makes up ecosystems and landscapes within your area? Within the world?
- Are these ecosystems and landscapes the same in every location? How so? What might make up some differences?
- What role do birds play in your observed ecosystems/landscapes?
- How are bird species different?
    - Do they look the same?
    - Are they the same size?
    - How do you think their diet is different?
    - Do they sound the same?
    - What are some other differences?
- Why do you think birds are important within ecosystems/landscapes?

Background Information for teachers and parents:

- Birds are an important part of ecosystems and landscapes in multiple ways. They can range from being pollinators for plant species, seed harvesters that can help other wildlife receive food as well as distribute plant seeds for future plant growth, and predators that prey on a variety of wildlife including fish, rabbits, small deer, other birds, and rodents. This wide variety of roles birds play within ecosystems/landscapes has led to an evolution and adaptation of bird species resulting in an even wider range of bird sizes, colors, appearances, and song calls.

- Being able to identify birds within your ecosystems/landscapes can help one better understand other wildlife that may be present within these locations. Different species can be identified using one or many senses human kind has at their disposal; this includes auditory. Birds of all species have unique songs and calls at their disposal, each of which can narrow down the possible species an individual hears while outside. They also have unique coloration and visual cues that can be used to identify not only the species of bird but also things like gender, age, and adaptations a species might have to survive in their habitat. Some visual cues that could also help in identification include wing shape, beak shape and size, whether or not the bird tucks in their legs during flight, and how the bird flaps their wings during flight. Bird identification can be done for all individuals due to the variety of tools individuals have at their disposal (sight, sound).

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Materials needed:
Writing utensil.
Notebook.
Binoculars (optional).
Access to bird identification links (can be used to assist in determining what birds were seen) (optional).
Cell phone or recording device to record bird songs (optional).
Safety gear (needed items to be able to spend time outside during observations).

Step 1: ~5 minutes
Invitation

1. What are some birds you know that live in your area?
2. Do you pay attention to birds around you often?
3. Do you enjoy listening to bird songs?

Step 2: ~6 minutes
Find a place outside, in your backyard, a local park or on a trail somewhere, where you can be comfortable spending the next 15 minutes at. Once you find your spot, sit for five minutes in silence to allow for the birds and environment around you to settle to your presence.

Step 3: ~20 minutes
Exploration

You are going to perform 3 five-minute point counts. A point count is a timed session where you record the species and how many individuals of that species you saw or heard within that timed session. You will record any observations about a species you saw (either the most common one seen or the one that is of most interest to you). You can use the table provided below.

It's okay if you don't know the exact species right away. Record what you can about it (examples):

- Beak shape
- Size of the bird
- Coloration
- What it's song/call sounds like
- How it flies

You can write these in bullet format or even make drawings to reference later when you try to identify what species it is. There are tables on the following pages and blank pages in the back. Provided below are free online bird guides through ebird and the Audubon society. The links can be found below.

Online Bird Guides:

https://www.audubon.org/bird-guide

https://ebird.org/media/catalog

Bird Point Count Observations

Point Count: 1
Duration: 5 Minutes

Bird Species	Number of Individuals	Observations	Habitat Type/ Characteristics

Bird Point Count Observations

Point Count: 2
Duration: 5 Minutes

Bird Species	Number of Individuals	Observations	Habitat Type/ Characteristics

Bird Point Count Observations

Point Count: 3

Duration: 5 Minutes

Bird Species	Number of Individuals	Observations	Habitat Type/ Characteristics

Bird Point Count Observations

Step 4: ~15 minutes
Concept Invention

Use the bird guides provided above to try to identify some of the species you saw or heard. Were there any bird species that appeared in multiple point count sessions? Any new species that you didn't know were there? You can use the space below for notes.

Step 5: ~10 minutes
Application

Look around at the environment around you. What types of trees do you see? Is it a really open area? Forested area? Any water nearby? Flowering plants? Grasses? Are there any bugs flying around? How many total species did you see in this one habitat type? Do you think they compete for resources here?

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Step 6: ~5 minutes
Reflection

If any, what is one bird that really caught your eye or interested you? Are there any birds that you could not identify?

Add anything you can remember to your observations or drawings. You can pick your favorite one and use the bird guides to give your drawing more detail.