

Field Study Planner

Overview

Study:	Amazing Birds	Conceptual Lens:	Senses
Overview:	<p>In this field study, students explore the ways that birds sense and respond to their environment. Students will examine the structures and functions of the body parts associated with each of the senses. They will also investigate how birds respond to changes in their habitat. Students will connect the Indigenous worldview with respect to the symbolism for many of the common birds we will study, as well as the recognition of the interconnectedness of all things and the responsibility to care for the land. Students will also go into the field and make observations of birds, using their own senses to see and hear the birds around them.</p>		
Duration:	1.5-2 hours	Season:	Spring

Stage 1 – Desired Results

Big Ideas

What do students understand? Copy from ODS Curriculum Map.
 Organisms sense and respond to their environment (Science 4)

Core Competencies

Communication: Students will use scientific language to exchange ideas with peers.

Creative & Critical Thinking: Students will make observations about birds and their habitat in the local environment.

Responsibility: Students will explore some simple environmental implications of their and others' actions and how those affect birds.

Concepts	Field Study Understandings	Transfer Goals	Essential Questions
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Cheakamus Centre Principles

the field study reflect Cheakamus Centre Principles (Place, Community, Inquiry, Personal Connections, and First Peoples' Perspectives

Students will explore and make observations of birds in the forest and along the waterways.

Students will use their senses and explore different habitats for different species and observe bird activities over time.

Students will use patience and take time to learn about bird behavior and they will learn about how they are connected to their ecosystem.

Connections: Students will discuss the consequences of human actions on birds and how to mitigate those impacts

➔ Alignment Check: ➔

Are your concepts, unit understandings, transfer goals, and essential questions connected and supportive of your Big Idea?

Curricular Competencies

Content

Students will be skilled at...

Students will demonstrate their knowledge, skills & understanding by:

• using the proper use of binoculars

• making observations

• in small groups

• in the large group

• showing curiosity about a scientific topic or problem

• making observations about living and non-living things in the local environment

• collecting sample data

• describing & interpreting the local environment

• using First Peoples perspectives & knowledge as sources of information

• explaining the simple environmental implications of their and others' actions

• demonstrating care for self, others, & community through personal or group approaches

Students will know that...

Birds can communicate through bird calls, songs and movement.

The characteristics of different local birds can help you understand more about the environment.

Human activities impact birds and their behavior.

Indigenous Peoples have legends about how certain birds came to be and how they interact with other animals and their ecosystem.

Stage 2 – Evidence: Assessing for Understanding

Assess: Field Study

Formative:

Assessments for students to show their knowledge and skills during the field study

Teachers should consider how formative assessment in outdoor learning is informal, varied, and ongoing throughout the field study.

Students' prior knowledge:

• "Step in the circle if..." birds. Gather students in a circle and tell them to step in the circle if the statement applies to them, then step back out.

• How many birds can you name? You can name three species (ask them to define) of birds found in BC

• How many birds can you name? You can name three things birds eat

• How many birds can you name? You have ever used binoculars

Summative:

Final assessments of knowledge and skills at the end of the Field Study

Teachers should consider how summative assessments revisit essential questions, involve self-reflection, and builds towards Final Task

Students will be able to demonstrate their understanding by:

Walk & Talk or group discussion:

1. How do humans impact birds? (positively and negatively)
2. How can humans help birds to survive?
3. What could you do to help birds at home?

Stage 3 – Executing the Learning Plan

ning events/activities are suggested activities. Teachers should add, revise, and adapt based on the needs of their students, their own personal p for resources, and a variety of instructional techniques.

ing the Activity

o into the circle if”: Gather students in a circle and step into the circle if the statement applies to them, then step back out.

can name three species (ask them to define term) of birds found in B.C..

can name three things birds eat and which birds eat them.

have every used binoculars.

have seen a live eagle or hummingbird depending on the season

a round of Eye Spy- used to learn what field marks in birds are.

tudents into pairs, have partners describe each other using hair colour, size, clothing type and colour, eye colour, footwear. Compare these char w field guides identify birds (colour, size, distinguishing features, ...). Would all features of their partners be the same in different seasons? Note ge plumage sometimes with the seasons (or with age!).

ain that they will be discovering the amazing world of birds today. Concepts you can include in your field study (taken from Cornell Lab of Ornithol

l air, water, and food in order to survive.

be quiet and still to observe birds.

e common physical adaptations.

o many unique physical and behavioral traits that help them to survive in their particular environment.

e sounds to communicate about territory, danger, food, and to locate one another.

ks come in many sizes and shapes.

ifferent because of the different jobs they do. Beaks are similar to simple machines.

re and structure helps a bird to fly.

ave different functions and are a physical feature unique to birds.

s migrate when the weather changes and their energy source decreases.

your opening activities, go to the Forest Lab.

to entering – Let students know that there are many stuffed birds that have been preserved in inside. These birds have been donated to the Outc ol over the years and they are all representations of birds that live in this local habitat. It is very important that the students DO NOT TOUCH the : . Tell them to walk around and take a good look at all of the birds and then sit down at table when they are done. See below at the bottom of this and description of the Forest Lab stuffed birds.

ivity 1: Have students work in pairs or as a group to create a list of all the different types of birds they can think of. Then hand out the Cheakamus i le-sided seasonal field guides. Students can look around the Forest Lab to see if any of the stuffed birds are on the field guides. They can also se irds they know are there. Students can share stories they have about their interactions with bird with their partners or as a group.

onal Extension: Introduce the concept of a **habitat** (the place where a plant or animal normally lives and grows). Explain that ODS has several hat i, forest, river, & pond) Ask what birds you would find at the farm? You can also introduce the idea of “**biodiversity**” (the number and variety of liv d within a habitat).

ivity 2: Discuss the following questions as a group (adapted from Cornell Lab of Ornithology):

o we see when we observe birds? What are some of their features?” “What do they have in common?” “What do you think they eat?” “I In other words - what makes a bird a bird?

idents that birds, along with all animals, need air, water, and food in order to survive. Begin a discussion with students about ways to observe bird nts have had experience chasing birds only to watch them fly away. Discuss how it is important to be very quiet and still while watching birds. A b ray to bring the birds closer. We do have a bird feeder by the Art Lab at the Cheakamus Centre. You can ask staff to help you fill it up with seeds i

Spring Birds Scavenger Hunt

Use this hook to get kids interested in bird watching. Quiet bird watchers see more birds! Write these on the board omitting the information in the brackets. Groups compete against each other for score. Record the highest score. No points earned until you are back in lab. Bonus birds must be pointed out by a counsellor. To equalize the group scores, groups can gain bonus points with recall of bird facts learned. More than one point can be earned, e.g. double bird, interesting fact learned about species = 3 points.

Special bird (Steller's Jay)

Fastest flying bird (Hummingbird)

Where are plastic owls outside dining hall at fireside lounge)

or

Why does mother Robin clean nest for babies)

or birds ID and facts learned

Can Share the Squamish story "The Great Blue Heron" in "People of the Land: Legends of the Four Host First Nations"

Birds

Great horned owl – raptor – eats meat (has most diverse diet of all North American raptors – mammals, reptiles, birds, insects, ...)

Screech owl – raptor – eats meat (small mammals, birds, amphibians, reptiles)

Red-breasted sapsucker – woodpecker – eats sap, insects & fruit

Partridge – ground feeder (like a chicken) pecks at ground - eats leaves, conifer needles, small invertebrates

Mallard – sieves food out of water, wide bill, strainer – Dabbling duck – eats aquatic plants, seeds, aquatic insect larvae, earthworms, shrimp

Crow (top) and Raven (bottom) – note forehead and how raven beak goes as a shallow angle to head whereas crow has more of a definitive forehead.

Kingfisher – has a spade (wedge) shaped tail when flying, crows have squared off tails – eat everything!!

Common Kingfisher (male on top, female on bottom) – strong shortish beak for jabbing and grabbing food – eat mostly fish, will eat snails, amphibians, crayfish

Loon – bufflehead – note back of head is going bald from being touched – dive for food – aquatic invertebrates, snails, invertebrate larvae, clams...
