

NEWBERRY PRESCHOOL MILLRACE CURRICULUM

By Kerry Sheehan

Time: 45 minutes

Overview: The lesson introduces students to Millrace ecosystem and a few of the most common bird species in the area. Using a visual representation of an Osprey and Canada goose, the students learn new vocabulary words and are encouraged to explore the concepts through coloring pictures. A large focus of the classroom lesson is to sparking students excitement about the habitats right outside their front door!

Learning Outcomes

By the end of the lesson students should be able to:

1. Define key terms: habitat, bird, raptor, talon, beak, river
2. Articulate their understanding of the differences between a raptor and non-raptor bird.
3. Identify birds that are a part of the Millrace habitat, and those that are not.

Materials:

- Osprey and Canada goose felt cutout (~2x3 ft.)
- I pictures relating to theme: webbed feet, talons, sharp beak, long beak, big eyes, small eyes
- Coloring sheets of Osprey, Canada Goose, Cliff Swallow, and Great Blue Heron
- Multi-colored feathers
- Markers
- Glue

Key Terms:

- **habitat** - “the natural home or environment of an animal, plant, or other organism.” (PLT 2007).
- **bird** - “a warm-blooded egg-laying vertebrate distinguished by the possession of feathers, wings, and a beak and (typically) by being able to fly.” (PLT 2007).
- **raptor** - “a bird of prey that is distinguished by a hooked bill and sharp talons.” (PLT 2007).
- **talon** - “a claw belonging to a bird of prey” (PLT 2007).
- **beak** - “a bird’s projecting jaws; a bill.” (PLT 2007).
- **river** - “a large natural stream of water flowing in a channel to the sea, a lake, or another such stream.” (PLT 2007).

Background Information

The Millrace habitat of Eugene, OR features four common bird species that can be seen around the Millrace Pond and Willamette River Habitats.

The Canada goose is a species of goose that has adapted to thrive in an urban environment. Once a migrating bird, the Canada goose is a full time resident of the Millrace pond and Willamette River. Flocks of twenty of these birds can be seen in the softball field adjacent to the Autzen footbridge. Between April and early June, these birds

were spotted frequently in these areas. In the beginning of May, their offspring was spotted following them around in the grass or floating with them in the river.

The Cliff Swallow is another type of bird that is frequently seen around the Willamette River and Millrace habitat. These smaller birds are looking for insects and typically like to hangout around bridges in urban environments. The Cliff swallows were spotted in the University of Oregon campus, around the Millrace pond, and most notably around the Autzen footbridge. They fly in flocks, typically with around 10-20 individuals. Though only two or three were spotted in the campus area.

The Great Blue Heron is a stoic creature of the Millrace habitat. It is the largest North American Heron. They are usually seen in solitude standing in the rocks surrounding the wave trains of the Willamette River, these birds are seen less frequently than the Cliff Swallow and Canada Goose. These gentle giants are waiting for fish to catch in their long beak. Their long legs are used to help them navigate the water and their frozen stance lets fish come to them. They are lightning quick for the catch, but otherwise these creatures are gently flying through the air or waiting silently for their next meal.

The Osprey is a raptor, or “bird of prey”, that has been spotted numerous times hunting along the Willamette River. They can be seen perched in the top of trees, or in the process of hunting a fish. These birds are big, with large legs and talons to catch their prey. They have a curved and pointed beak to be able to eat their prey.

Timeline:

1:40pm Prep

1:45pm Ground Rules

1:55pm Group Discussion

2:15pm Hands-On Activity

2:30pm Wrap Up & Evaluation

Lesson Instructions

Ground Rules (5 minutes)

3. Ask students:
 - **Q:** “Who can tell me what their favorite kind of bird is?”
 - **Q:** “Why is it your favorite?”
 - **Q:** “What do explorers/scientists do?”
 - **A:** “Make discoveries, watch and listen to animals, identify plants, count plants and animals, read about plants and animals, etc.”
4. Establish *Explorer Caps*.
 - “Today, we are becoming explorers. Lead students in reaching into the sky and pulling on their imaginary *Explorer Caps*.”
5. Using a flip chart, record ground rules.
 - Open the floor to volunteers.
 - Allow 3 rules, to stay on time.
 - If any of your ground rules aren’t mentioned, make sure they are noted.
6. Environmental Leadership Program ground rules:
 - Be kind and respectful of ourselves, others and the environment
 - Raise hands to speak (when directed)
 - Hands to ourselves

- Listening closely

Lesson (30 minutes)

1. Introduce topic.
1. Discuss Millrace habitat and how it is a habitat to other living things.
2. Ask the students:
 - **Q:** “Raise your hand if you have been to a river. (What did you see? Did you see any birds?)”
3. Record the number of students who have never been before for future outputs.
4. Introduce key terms: *habitat, bird, raptor, feather, talon, beak, river*
 - Using a dry erase board, try to get the students to say what each drawing of the key terms is. Help them when appropriate.
 - Have the students repeat each word back to the facilitators after saying the word.
 - After each word has been defined, ask for local examples from the students.
5. Give instructions for using the drawing worksheet to help fully grasp vocabulary words.
 - Have students work quietly, raising hands if they need help.
 - Students will trace the vocabulary word outlined in each box, and then draw an example of the word that can be found locally. Ex: a habitat could be a pond or a river.
 - Work closely with table groups to ensure understanding, or come together and work through the sheet together as a class.
6. Give instructions before passing out pictures.
 - Tell class that there will be a series of pictures passed out to each table. They will be body parts of the Canada Goose and Osprey.
 - When their table gets the pictures, it is the job of each individual to find one picture they want to place on either bird.
 - *Note: Facilitator and helpers will be at each table to prompt peaceful selection of each picture.*
7. Float around the room and see what each student is producing.
 - Make sure focus stays on the task at hand.
 - Make sure that they know the name and type of the body part they selected.
8. Give instructions about placing pictures on the birds.
 - Single table groups will go up at a time to place their pictures on the birds.
9. Gather up leftover pictures and have class meet around the felt birds.
10. Discuss the results. Are the pictures on the correct bird? In the correct spot? If not, explain why and discuss why it should be changed.
 - Use the leftover pictures and decide as a class where they belong.
 - Have students participate in the decision by using thumbs up, thumbs sideways, or thumbs down.
 - Reach consensus through discussion.
11. Discuss the reason that the two birds have different body parts and eat different foods:
 - **Q:** “Where do all these birds live?”
 - **A:** “At the Millrace!”
 - **Q:** “Can anyone tell me what kind of feet an Osprey has?”

- **A:** “They have talons.”
12. Discuss other aspects of the bird species and the Millrace habitat.

Evaluation (10 minutes)

1. Ask for volunteers who remember vocabulary words.
 - When a definition has been remembered, ask students to talk about where they belong in relation to the two felt birds.
 - Go through all six vocabulary words: habitat, bird, raptor, talon, beak, river
 - Ask students how the birds and Millrace habitat might interact together.
2. Thank everyone for listening so well!
 - Give the class coloring pages of the birds
 - Take off “explorer caps”