

About This Module

Overview	Because birds are found everywhere, they are an ideal way to connect youth with nature. Just step outdoors and you'll see birds flying, feeding, nesting and communicating. Helping participants observe birds is a great way to introduce them to the study of wildlife and to sharpen their observation skills. The following activities introduce youth to the wonders of birds and nature.
Guiding Questions*	<ul style="list-style-type: none"> • What are two features that help birds fly? • What are several features that identify birds? • What are animal adaptations? • How do birds' beaks resemble certain human tools? <p>*Guiding questions are not specifically asked in the activities themselves but are meant to guide your preparation and facilitation of the module. Keep these questions top of mind so you can help youth make connections and capture key takeaways relating to the topic.</p>
Activity 1	Create Group Agreements for Ultimate Journey Youth create their Group Agreements to ensure an emotionally supportive environment for all.
Activity 2	Soaring Youth gain an appreciation for birds by exploring how their physical features help them to fly. Next youth design, build and test paper airplanes to simulate birds soaring.
Activity 3	What's Your Name? Youth discover common birds that live in their area and identify these birds using field guides and/or an app. Participants take a walk around their Club to apply what they've learned.
Activity 4	Battle of the Beaks To learn about animal adaptations, participants discover how bird beaks are adapted to eat specific types of food. They play a simulation game to learn about bird beak adaptations and then use tools that represent different bird beaks as they try to 'eat' various foods.



Key Terms

Animal adaptation	A body part or a behavior that helps animals survive and function better in their environment.
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Supplies

Activity 1: Create Group Agreements for Ultimate Journey	Handouts	
	1 per participant	Ultimate Journey Passport and Pledge
	Supplies Needed	
		Flipchart paper and markers
	1 per small group	Scissors
	1 per small group	Stapler
	5 per participant	Sticky notes
	1 sheet per participant	Paper
	1 per participant	Pen or pencil
	3 sets	Markers, crayons or colored pencils
Activity 2: Soaring	Handouts	
	1	Paper Airplane Test Results
	Supplies Needed	
	1 per participant	Ultimate Journey Passports saved from previous activities
	1	Computer or projector to display videos
	3 sheets per participant	Copy paper
	1 per small group	Tape
	1 per small group	Glue
	1 per small group	Scissors
	4 per small group	Straws
	1 set per small group	Colored pencils or markers
	1	Clipboard
	1	Pen or pencil
	1	Tape measure
	1	Timer
	Optional	Portable fan

Supplies

Activity 3: What's Your Name?	Handouts	
	1 per pair of participants	Bird Sightings
	Supplies Needed	
	1 per participant	Ultimate Journey Passports saved from previous activities
	1	Computer or projector to display videos
	1	Paper bag
	Several	Small objects that represent something about you
	1 per pair (optional)	Binoculars
	1 per pair of participants	Pencils
	1 per pair of participants	Clipboards
	Optional	Field guides to local birds
	Optional	Bird identification app, such as Merlin, on one or more smartphones
Activity 4: Battle of the Beaks	Handouts	
	1	Battle of the Beaks Setup Chart
	1	Battle of the Beaks Station Labels
	1 per small group	Results: Battle of the Beaks
	Supplies Needed	
	1 per participant	Ultimate Journey Passports saved from previous activities
	3	Toothpicks
	3	Large slotted spoons
	3	Eyedroppers (ask pharmacy to donate)
	3	Small cooking strainers
	3	Nutcrackers or pliers
	3	Pairs of chopsticks
	3	Tweezers
		Swedish fish candy
		Gummy worms
		Puffed rice cereal
		Sunflower seeds and/or walnuts with and without shells

Supplies		
Activity 4: Battle of the Beaks	Supplies Needed	
	Several	Plastic foam pieces
		Uncooked rice
	1	Clear bottle or tall glass with narrow opening filled with colored water
		Food coloring (to color water)
	1 per participant	Cups
	1	Large plate
	2	Medium-sized bowls
	2	Large bowls
	1	Cotton hand towel or large sponge
	1 per participant	Drink for snack
	Optional	Snack cups, allergen free
	1	Timer, whistle or bell

Skills	
Academic Skills	Social-Emotional Skills
Curiosity	Adult Connections
Creativity and Innovation	Communication
Designing and Constructing Explanations	Collaboration
	Empathy
	Identifying Emotions
	Youth Connections
	Identifying and Solving Problems

Activity Variations

Activity 4: Battle of the Beaks

Instead of setting up Simulation Stations for youth to rotate, bring a tray of supplies to each small group and invite them to battle it out as a competition with their group mates.

Here's how:

- **Distribute** one type of “beak” (tool) to each participant and a plastic cup.
- **Place** one station with its corresponding food in the center of each group.
- **Instruct** youth to hold their tool in one hand and place the other hand behind their back.
- **Tell** youth to keep their cup in front of them.
- **Explain** to youth that they are birds. Their assigned tool represents their beak, and their cup represents their stomach.
- **Tell** youth that on your signal, they must compete to gather as much of that station's food with their “beaks” as they can and transfer it into their “stomachs.”
- **Remind** youth that their survival depends on their ability to gather food.
- **Tell** youth not to actually eat any of the food from the station!
- **Give** the signal, then allow each group 10 seconds to “feed.”
- **Signal** youth to stop feeding when the 10 seconds expire.
- **Tell** youth to clean up their stations and return as much of the food as possible to their original vessels.
- **Ask** youth to discuss with their group mates which beak (tool) was most successful with gathering the food provided at that station.
- **Tell** youth to record their observations on their Results: Battle of the Beaks handout.
- **Repeat** the procedure for each station, so youth get to try each food.

Extension Activities

Activity 2: Soaring

- **Test Tailwinds:** Birds often use tailwinds (winds blowing in the same direction they fly) to help them fly. If you have access to a portable fan, have participants turn it on and stand in front of it as they test their planes to see if it affects the results. Alternatively, take youth outdoors on a windy day to fly their airplanes and see how that affects the results.
- **Decorate Airplanes:** Instruct youth to decorate their paper airplanes to look like birds.
- **Make a Birdfeeder:** Challenge participants to make a birdfeeder from recycled items, such as plastic and cardboard milk cartons, aluminum pie plates, large pinecones or pieces of string.

Extension Activities

Activity 3: What's Your Name	<ul style="list-style-type: none"> • Bird Song Hero Game: Learn about various bird songs and try to identify the songs through a guessing game. This game can be done while viewing the following video from Cornell Lab of Ornithology: "Bird Song Hero: The Song Learning Game for Everyone" (youtube.com/watch?v=8xH2GjHKYj0) • Art and Writing: Tell participants to sketch some of the birds they see and add field notes about their behaviors. They can even start a wildlife journal.
Activity 4: Battle of the Beaks	<ul style="list-style-type: none"> • Make Bird Beak Masks: Use construction paper, scissors, tape, string and a hole punch to make masks. Allow youth to use a variety of art supplies to decorate their masks to look like the birds of their choice. • Make a Bird Nest: Use materials such as string, yarn, twigs, grass and glue. An alternative is to build an edible bird nest out of items such as chow mein noodles, thin pretzel sticks, peanut butter (glue) and jellybeans (bird eggs).

National Park Spotlight

Activity 2: Soaring	<p>Discuss how our National Parks, as well as other protected lands, provide critical habitats for many species of birds that migrate both nationally and internationally. The actions that happen in one part of the country, such as deforestation, can affect migration patterns, making it even more important to preserve critical park habitats.</p>
Activity 3: What's Your Name?	<p>Discuss how National Parks provide habitats for a wide variety of birds, including endangered and threatened species. For example, the threatened northern spotted owl can be seen in the Golden Gate National Recreation Area, Muir Woods National Monument, and Point Reyes National Seashore in California. These three National Parks began a joint systematic survey of spotted owls in Marin County in 1993. Preliminary results of these surveys indicate that the county may support the highest density of spotted owls.</p> <p>For more information, visit National Park Service on Spotted Owls (nps.gov/im/sfan/spotted-owls.htm).</p>

Note to Facilitator: Portions of Activities 2 (optional) and 3 are conducted outdoors. Check the weather and schedule the activities for a clear, sunny day.