

PROJECT INSPIRE LESSON PLAN

BIRDS GALORE WORKSHOP

Curriculum Objectives

In this workshop, students learn about all about birds such as habitat, communication, and identification.

Details

Location: Stono Preserve or other garden space

Lesson: Outdoors

Activity: Outdoors

Time of year: Anytime

Age: Elementary school

Activity 1: Bird Communication and Habitat

Students learn about animal communication by comparing and differentiating bird calls made by different species. Instructors will play different bird calls and bird songs from their phone (or other device) and will explain how birds use these vocalizations to communicate warnings, territorial disputes, and feeding opportunities with other birds. Students will then have a chance to observe shifts from a natural landscape to managed land and are taught how managed lands can provide habitat and food for birds.

Materials

- Recordings of bird calls (e.g. bird call app)

Activity 2: Pine Cone Bird Feeders

To expand on how managed lands can provide food for birds, students will have the chance to make pinecone bird feeders for local species. Students will collect pinecones and then cover them in peanut butter (or something else if there are allergies). Use cookie sheets to spread out the bird seed; roll the cones covered in peanut butter over the bird seeds on the trays. The bird feeders can then be hung in a tree using fishing wire or string.



Source: [Mom. Wife. Busy Life](#)



Source: [Preschool Inspirations](#)

Materials

- Pinecones
- Peanut butter (or similar food such as tree nut fillers) – be aware of nut allergies
- Bird seed
- Plastic spoon, popsicle stick, or spatula (to spread the peanut butter)
- Cookie sheets / trays
- Fishing wire / string

Additional Resources

- [How To Make a Pine Cone Bird Feeder \(blog\)](#)
- [A Peanut Butter Pinecone Bird Feeder DIY, Easy Kid's Craft \(video\)](#)

Activity 3: Homemade Binoculars

Students use real binoculars to look for and identify birds in the surrounding area then have a chance to make binoculars to take home. Allow students to paint the toilet paper rolls and piece of cardboard. Once it dries, place a line of glue down each roll and place the cardboard on top. You may have to adjust the size of the cardboard for each individual's eyes. Punch holes for the yarn which will make the strap. Optionally, decorate with sequins, stickers, buttons, acorn caps, etc.

Materials

- Binoculars (multiple pairs for larger groups)
- Toilet paper rolls
- Pieces of cardboard
- Hole punch
- Yarn / string
- Glue
- Optional: sequins, stickers, buttons, acorn caps, other decoration items



Source: [Kristin Rogers Inspiration](#)

Activity 4: Design a Bird

Students draw a bird of their own creation on paper. Designs should take into consideration the desired diet (observed in beak shape), habitat, sex (i.e. males may be brightly colored, females less so), songs, etc. Then take time for students to introduce their birds to the group.

Materials

- Paper
- Colored pencils / crayons / markers



Source: [ClipArtMag](#)

Activity 5: Make a Bird Nest

Show students pictures of bird nests and (if possible) real bird nests in nature. Explain to students the purpose of a bird nest and what kind of materials birds use to build them. Then provide mud, sticks, grass, leaves, twigs, pine needles, pebbles, etc. for the students to create their own bird nest. Optional: provide eggs for the students to put in their nests (i.e. jelly beans, marbles, or egg-shaped candy). (Activity from: <https://kidactivities.net/bird-theme-page-1/>)

Materials

- Mud, sticks, grass, leaves, twigs, pine needles, pebbles, etc.
- Eggs: jelly beans, marbles, egg-shaped candy

Additional Resources

- [Bird Nest Identification \(blog\)](#)
- [8 Different Kinds of Bird Nests and How to Spot Them \(blog\)](#)
- [Bird Nest Facts \(Visual Resources for Ornithology website\)](#)
- [Types of Bird Nests \(Audubon Society website\)](#)
- [10 Weird and Wonderful Bird Nests \(blog\)](#)
- [10 Amazing Facts About Birds' Nests \(video\)](#)
- [7 Nests That Will Change How You Think of Birds \(video\)](#)



Source: [Birds & Bloom](#)



Source: [Science Buddies](#)



Source: [StarTribune](#)

Activity 6: Bird Beak Buffet / What Can I Eat with this Beak?

Students should work in groups of 4-6, either at a table or around a clean mat on the floor. Distribute one type of “beak” (utensil) to each student, instructing them to hold it in one hand and place the other hand behind their back. Place a “stomach” (cup) in front of each student. Place one type of food in each group’s feeding area (plate) and instruct students that, at your signal, they must compete for as much of that food resource as they can gather with their “beaks”. Remind them that their survival depends on their ability to gather food. Give the signal, then allow each group 5-10 seconds to “feed”. All food must go into their “stomach” (cups)! After 10 seconds, give the signal to stop. Have the students tell which beak was most successful in gathering that type of food. Repeat the procedure for each type of food available (<http://pubs.usgs.gov/of/1998/of98-805/lessons/chpt2/act5.htm>)

Background Info: A bird’s beak is basically a lightweight, bony elongation of its skull. The beak is covered with skin that produces keratin, the same material found in human fingernails and hair. On most birds, the keratin condenses and dries, forming the beak’s hard, glossy, outer covering. The tip and cutting edges of the beak are constantly renewed as they wear away, just as human nails are. Bird beaks are multi-functional tools. Birds use them to weave nests, defend their territory, attack competitors, groom feathers, communicate, and most significantly, to gather or capture food. Over the years, a wide assortment of bird beaks has evolved. Though many birds have straight beaks that are adapted to general feeding, some birds’ beaks are examples of unique adaptations.



Unusual Bird Beaks and Their Uses:

- Eagles and other raptors have strong, hooked beaks for tearing fish.
- Anhingas and herons have dagger-like bills for spearing and grasping fish and frogs.
- Pelicans have pouched beaks, used as nets for scooping up fish.
- Hummingbirds beaks protect their long tubular tongues, with which the birds extract nectar from flowers

- Swallows and whippoorwills use their wide gaping beaked mouths to catch flying insects in mid-air.
- Cardinals and grosbeaks have short, cone-shaped beaks for cracking open seeds.
- Snipes have long beaks for probing in mud and water to find worms and other small animals.
- Woodpeckers have chisel-like beaks for searching under tree bark to find insects.
- Yellow Bellied sapsuckers have drill-like beaks for boring into trees to feed on sap and the insects attracted to it.

All animals are adapted to their environment in unique ways. A very important adaptation for food gathering in birds is the size and shape of the beak. In this activity, we will focus on different types of bird beaks and discover how each type of beak functions in collecting specific types of food. Students, using everyday objects that model different bird beaks, will try to gather the food and place it in their “stomach”. A class discussion on specialization of each beak type should follow.

Materials

- Various utensils
- Cups
- Plates