

Birding

Class Overview

1. Introduction
 - a. Ask students to go around the circle and give their name and a bird that like.
 - b. Have the students think about what makes a bird unique? What adaptations do they have?
2. Progression of Activities
 - a. Describe a Bird
 - b. Bird Beak Adaptation
 - c. Bird Parts/Observation
 - d. Jays and Juncos
3. Learning Standards Addressed
 - a. 4.A.2b, 4.A.2c, 4.A.3a, 4.A.3d, 4.B.2b
 - b. 12.B.2a, 12.B.3a, 12.B.2b, 12.B.3b
 - c. 19.C.2a, 19.C.3a, 19.C.3b
4. Vocabulary
 - a. Adaptation: An alteration in the structure or function of an organism to help them survive and multiply in their environment.
 - b. Hollow Bones: An adaptation that birds have to help them fly.
 - c. Plumage: The covering of feathers on a bird.
 - d. Crown: The top of the birds head.
 - e. Rump: The hind part of the body of an animal.
 - f. Nape: The back of the neck.
5. Wrap Up
 - a. What bird did you enjoy watching the best?
 - b. What is one adaptation birds have?
 - c. Which beak do you think would be most helpful?

Describe a Bird

Objective: Students will brainstorm different characteristics /adaptations that make birds unique.

Method: Describing characteristics and drawing on chalkboard.

Location: Anywhere

Time: 10 minutes

Materials: Chalkboard/white board, chalk or dry-erase marker

Vocabulary: Adaptation, hollow bones, plumage

Background info: Birds are very unique animals and have many qualities/adaptations that make them unique. In this activity students will try to produce a list of these special characteristics and turn them into a drawing of a bird.

Procedure:

1. Have students stand or sit near the chalkboard/white board so everyone can see.
2. Draw a round circle and head on the board that will represent the bird's body.
3. Have students raise their hands to tell you what characteristic or adaptation they would like to draw onto the bird. Talk about each item as the students draw onto the bird.
4. Continue until the group feels their bird is complete.

Wrap Up:

1. What are some adaptations birds have?
2. How do you think our bird compares to birds we will observe today?

Bird Beak Adaptation Game

Objective: Students will discover that bird beaks are adapted for specific types of food and describe how adaptations work.

Location: Anywhere

Time: 30-40 minutes

Materials: Eyedroppers, slotted spoons, tweezers, pliers, long-handled tongs, buckets, water, yogurt containers, log with holes drilled, marbles, seeds, nails/screws, sunflower seeds, beans, and station cards

Cards for each station:

Station #1 Log with Holes (*start with tongs*)

Use your tool to remove seeds from the holes in the log and place them in the cup.
Please put the seeds back in the log before moving to the next station.

Station #2 Bucket with Submerged Marbles (*start with tweezers*)

Without getting your hands wet, use your tool to remove the submerged marbles from the water and place them in the cup.
Please return the items to the water before moving to the next station.

Station #3 Cup of Water (*start with slotted spoon*)

Use your tool to move water from one cup to the other. Do not pick up or touch the cups with your tool.
Please return all of the water to the original container before moving to the next station.

Station #4 Sunflower Seeds (*start with eyedropper*)

Use your tool to crack the shell of the seed and remove the edible part and move it to the cup.
Put the shells and seed kernels to one side of the tray.

Station #5 Submerged Screws and Nails (*start with pliers*)

Without getting your hands wet, use your tool to remove the submerged screws and nails from the water and place them in the cup.
Please return the items to the water before moving to the next station.

Background Info: One adaptation birds have is their different beaks. Birds have unique beaks based on the type of food they eat as well as the habitat they live in. Birds that live closer to the forest and feed on seeds (like a cardinal) are going to have a much thicker beak than a bird who needs to feed on insects in a tree (woodpecker).

Procedure:

1. Set up stations before students arrive.
2. Students are divided into 5 groups and assigned to different stations.
3. Each group uses the tool at the starting station to try to obtain food.
4. When direct to do so, each group will take their original tool and rotate to a different station.
5. This rotation continues until each group has had the chance to try all 5 stations.

Wrap Up:

1. Decide as a group which tool was suited for which station. Why?
2. Consider what type of beak each tool represents.

eyedropper-hummingbird tweezers-woodpecker pliers-seed eater (cardinal)

tongs-wading bird (heron) slotted spoon-pelican

3. What type of food is represented at each station?

water-flower nectar

beans-insects

nails/screws-fish

marbles-fish/crustaceans

sunflower seeds-seeds

4. Discuss the type of habitat each beak might most likely frequent.
5. Discuss other physical and behavioral characteristics of birds and how these might help promote success within niches in their habitats.

Adapted from:

Council for Environmental Education. Flying Wild: Curriculum and Activity Guide, 2006.

Bird Parts/Observation

Objective: Students will learn the different parts of the bird and observe them in their natural habitat.

Location: Poley bird porch

Time: 15-45 minutes

Materials: Bird parts picture, paper birds hung around room, binoculars, id guides

Vocabulary: Crown, rump, nape

Background Info: To properly identify a bird, it is important to distinguish between the different parts of the bird. Many birds are similar in their size, shape, and color. When identifying birds, make sure to pay attention to details such as the color of the crown or what the shape of the bird's beak looks like.

Procedure:

1. Cover the names of the parts on the bird picture. Have the students name the parts and pull off the name covers as each part is correctly identified.
2. Pass out the binoculars and teach the students how to adjust them properly.
3. Pass out the id guides and teach the students how they will be able to locate birds in the book based on their colors.
4. Have the students practice using the binoculars and id guides by identifying one or two of the paper birds that were placed around the room.
5. After the students are able to successfully identify one or two of the paper birds, have them quietly walk onto the bird porch for observation.

Wrap Up:

1. How many different birds did you see today?
2. Where you able to find differences in their beaks? Color?
3. What were some other bird behaviors you noticed?
4. If there were not many birds at the feeders, why do you think that happened?

Jays and Juncos

Objective: Students will act out birds foraging for food and discuss food chain relationships.

Location: Outside

Time: 15-30 minutes

Materials: Yogurt cups, beans (large), pictures of a Blue Jay and a Dark-Eyed Junco

Background Info: Jays and Juncos are very different birds. A Junco is a very small bird that usually builds its nest on the ground, while a Jay is a very large bird that occasionally will try to steal food or eggs from a nest.

Procedure:

1. In this activity one or two students will be Jays and everyone else will be Juncos.
2. Each Junco will get a yogurt cup that will represent their nest. While the Jay has his/her eyes closed, the Juncos must find a place within the boundary to hide their nests. The nests need to be on the ground, but the students are able to camouflage the nest if they want to. The Jay (or Jays) also get a yogurt cup to store food, although they will carry it with them.
3. Once the nests are hidden, the Juncos need to come and start collecting food (beans) from the teacher. They can only get one bean at a time and must take it back to their nest before receiving anymore.
4. After about 15 seconds of the Juncos getting food, the Jay (or Jays) will be able to open their eyes and start looking for nests. If a Jay finds a nest, he/she can empty the whole nest into their yogurt cup, then put the nest back carefully.
5. Juncos are not allowed to guard their nest or bully the Jays (they are too small) but can try to distract them in other ways.
6. The Juncos cannot move their nest during a round, even if it is found by a Jay. Instead, they want to keep on putting food in the nest in hopes they will have food at the end. Jays are allowed to visit the same nest more than once.
7. During one point in the game, the teacher will yell out "night time." When this is called, the Jay (or Jays) must stop and close their eyes while the Juncos can continue to collect beans. This will continue until "day time" is called out.
8. The game will end when the students get tired, usually 5-7 minutes per round.
9. Have the students collect their nest and count the number of beans they have. Let them know that, the more beans they have, the more offspring they will be able to produce.

Wrap Up:

1. What were some strategies used by the Juncos? Jay (or Jays)?
2. How did the Juncos "protect" their nests?
3. What do you think birds do if their nests are robbed?