

Birds: The best beak

Materials

- Utensils that represent bills: droppers, tweezers, nutcrackers, large spring-type clothespin, small strainer, large tongs
- 6 Food stations
 1. **Nectar** - tall, skinny vase filled with colored water
 2. **Tree insects** - log with grains of rice placed in bark
 3. **Seeds** - container of hard-shelled nuts
 4. **Fish** - large container filled with water and plastic fish
 5. **Grubs and worms** - container filled with dirt and raisins
 6. **Aquatic plants** - large container filled with water and small floating "food" (cereal, fake plant pieces)
- Pictures of birds: hummingbird, woodpecker, cardinal/sparrow, heron/egret, robin, pelican

Suggested grade level: 2 - 4th

Louisiana GLEs

Grade 2: SI 1-3, 4, 6, 9; LS27, 30, 35

Grade 3: SI 1, 2, 3, 4, 6, 9; LS 35, 38

Grade 4: SI 1-4, 7, 10; LS 41, 48, 50, 51, 52, 53

Activity adapted from A. Lopez,
LSU SOAR Coordinator



Students will learn about the correlation between the shape and size of a bird's bill and how it is adapted to find and eat food in their specific environment.

Background

Birds are equipped with a unique tool: a beak. A beak is a lightweight, bony elongation of the birds skull. Bird's beaks are used to perform many functions from weaving nests to grooming feathers to gathering and capturing food. Over the years a bird's beak has evolved into many shapes and are examples of innovative adaptations. An adaptation is a trait the makes an animal suited for its environment. These adaptations can be both physical and behavioral.

Procedure

Begin by discussing the term- adaptation. Give some examples: giraffe- long neck to reach tops of trees; polar bears- 4 inch thick blubber that helps keep them warm; rabbits- long ears to help hear predators. End by focusing on the wide variety of bird beak shapes. Show pictures of birds, point out the size and shape of their bills and have students guess what the birds might eat.

1. Explain that 5 feeding stations have been set-up in the classroom. Each student will be given the chance to see what it is like to be a bird competing with others for food. Make sure to explain to your students that not all beaks will be successful at catching food at every station.
2. Divide the class into groups of 6. Each student within a group will be assigned a different "beak". Let them guess what bird they think they represent. Start each group of 6 at their own feeding station. Once they complete one station, the whole classroom will rotate to the next station until every group has visited each station.
3. Give the students a cup that will represent the birds stomach. This is where they will place the food once it has been collected.
4. Explain the rules of the game:
 - You must only use your beak (utensil) to collect the food- no hands.
 - If food falls out of your utensil, you may not pick it up again.
 - You have 2 minutes. When time is called put the utensil down.
 - Each group then switches stations until all station have been visited.
5. Now have students sort and count the food to determine which beak collected which food the best. Then try to identify which bird beak the utensil represented. Look at the pictures once more.

Extension

Have the students construct a data table showing how much food was collected at each station with each beak. A classroom graph can be constructed.