



Bruce Museum Seaside Center Activity: Bills, Bills, Bills!

A guided art exploration for use along the Long Island Sound and its environs.

**Note: This is part of a series of educational pamphlets and activities released as part of the Seaside Center's Digital 2020 Season. For access to all our content, please visit:*

<http://www.storagetwo.com/seaside-center>

[Last week](#) Seaside Center Naturalist Brendan Murtha showed us how we can identify different shorebirds based on their feeding behaviors and beak shapes. While not all of us live on the shore, there are lots of birds in our own neighborhoods waiting to be observed. Each type of bird that we see has a special set of adaptations that allow them to survive and thrive in their environments.

This week, you and your learners will spend some time observing birds and their feeding behaviors and experiment with different kitchen and household tools that replicate beak shapes and functions. To participate in this week's activity you will need to do three things; go outside and observe birds in your area, collect samples of the types of foods birds eat in the late summer/early fall, and use kitchen tools to imitate different bill shapes and uses.

When you go outside to observe birds in your neighborhood, you and your learners should bring a notebook and pencil. You also might want to bring a camera, or a cell phone, to record what you see. Feel free to use binoculars if you have them, but they are not necessary for this activity.

Materials Needed: notebook, pen or pencil, camera or cell phone, chopsticks, tweezers, tongs, plastic spoons, toothpicks or skewers, breadcrumbs, natural materials like acorns, maple seeds, hickory nuts, leaves, flowerheads, colored pencils, plastic cups, other household objects, and binoculars (optional).

Let's go birdwatching!

Before you go outside to look for birds, prepare a page in your notebook with basic questions to help you observe and understand the behaviors you are seeing. Take a photo or photos of the bird/birds that you observe for later reference. You might also want to draw pictures of the birds you see, focusing on their bill/beak shape.

Get outside!



While the types of birds that you see will depend on the area you live in. There are some birds that are very common to the American Northeast. Using a guide to local birds can be a big help, and a few good ones can be found [here](#) and [here](#).

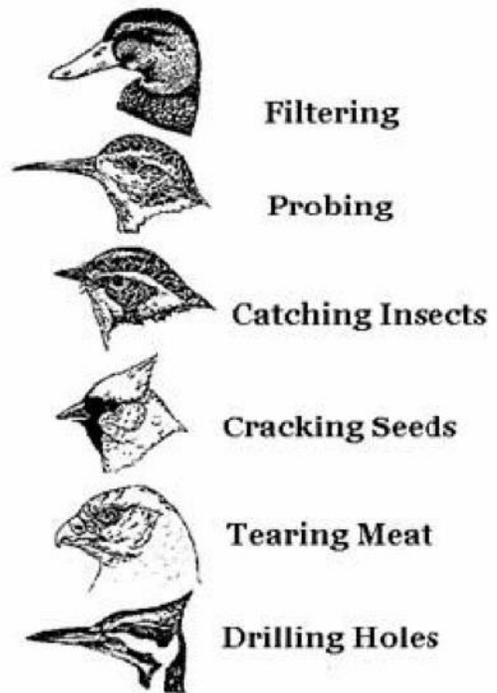
What to look for when you see a bird:

- Is it eating or gathering food, and if so, how?
- Is the bird preening/cleaning its feathers?
- Is the bird in a group/flock of similar or different birds?
- Can you see the bird's beak? If so, what is the shape and size in relationship to the bird's head?
- What is the shape of the bird's body?
- What shape are the bird's wings?
- What kind of feet does the bird have?

When you get back indoors you can use this handy graphic to figure out what types of bills you saw while you were out. You may want to label some of your illustrations or photos with the type of bill that you think you are seeing.

If you observed your bird eating, preening, or otherwise using its bill, think about what behaviors you saw. This is a hint as to what type of bill the bird had!

Look at the photos below. While out walking in Central Park in New York City, we were able to get pictures of starlings, sparrows, rock doves (aka pigeons), catbirds and robins. Each of these birds will happily eat breadcrumbs but left to their own devices they eat different types of foods in different ways. What do their bills remind you of? Can you find any correlations between their beak shapes and those in the image above? What do you think these birds specialize in?





The American robin has a relatively long yellow bill with a wide base. The tip of a robin's bill is black. Robins use their bills to peck at fruits and berries, and for pulling earthworms and other insects out of the ground.



Catbirds have a long narrow bill. Unlike many other birds (like robins) who use their bills to probe for insects or fruits, and their feet to sift through leaf mulch and detritus, catbirds use their beaks to flip away leaf mulch or obstructions and are known for catching insects on the wing.



This flock is filled with city favorites: Sparrows with their short, cone-shaped seed-cracking bills, starlings with their long, wide, and strong multi-purpose bills, and rock doves (pigeons), with their small triangular bills, ideal for cracking nuts and seeds.



Fill You Bill



The bills in the photos above are only some of the variety of bills that have evolved over the years. What do you think it might be like to use a bill to eat? Find out with this simple but super fun activity.

On the right you can see the platter of foraged bird food and household tools that we assembled for our activity. We collected seeds, berries, grasses, and wild fruits. The household tools we found were a plastic spoon and knife, chopsticks, a straw, tweezers, a Swiss-army knife, a beard comb and skewers. We used our tools to experiment with picking up and opening, cracking, and crushing our wild foods. Collect your own wild foods and experiment with tools you find in your home.

Normally, as humans, we might use our hands, but birds don't have hands! Birds can only use their beaks and feet, so in this activity we only use the tools we find. After experimenting with your variety of tools, use the images of different types of bird beaks to decide which tool/bird bill would be the most appropriate for your foraged bird food.



We hope you enjoyed this activity, and your summer with the Seaside Center. Remember that you can revisit this and other Seaside Center Digital fun all year long at our website:

<http://www.storage2.com/seaside-center>

See you next summer!