

## Identifying Birds by Their Beaks

**Grades:** 3-4

**Curriculum:** Technology and Science.

**Duration:** Three 40 minute class periods.

**Focus:** At the end of this lesson students will:

1. Understand the uses of the different shapes of bird beaks.
2. Identify different shapes of beaks.
3. Connect the understanding with the identifying of bird beaks.

**Summary:** Birds are incredible creatures. One of the most identifying features of a bird is its beak. The main function of a beak is for feeding and it is shaped to match that need. The food sources will lead to habitats and explain why different birds are found in different places.

**Exploration:** General discussion may be started by the students talking about the birds they know about and where they have seen them.

*Discussion questions:*

1. Do birds all have the same beak?
2. How are they different?
3. Why are they different?
4. Do you know what the birds eat?
5. Have you seen how certain birds devour their food?

**Materials needed:**

Beak reference sheet (see attached)

Computers w/ printers

“A Field Guide to the Common Birds by Habitat Type and Basic Color”  
(available through Grant-Kohrs Ranch)

**Activities:**

After discussion of exploration questions, the teacher will explain how the different beak shapes indicate the various food sources of the bird. Each child will receive the reference sheet provided by the teacher. Together, they will read through each beak shape, type, and adaptation, and discuss whether the students have seen birds with these bills before.

Students may work individually or in groups to research different birds on these web sites: They are to record three examples of birds in each of the eight categories: Cracker, Shredder, Chisel, Probe, Strainer, Spear, Tweezer and Swiss Army Knife.

The students will submit the information gathered to the teacher.

<http://gobirdmontana.com/gallery.html>

<http://www.birdphotography.com/>

[http://donb.furfly.net/photo\\_cd/d/b21.html](http://donb.furfly.net/photo_cd/d/b21.html)

[http://www.pbase.com/dougj/birds\\_birds\\_birds](http://www.pbase.com/dougj/birds_birds_birds)

**Application:** Students may go on walks close to their school and observe the different types of birds they encounter, recognizing them by their beak and information they have gathered. This could lead to an organized field trip to Grant-Kohrs studying different birds in different habitats and enlisting the help of local birdwatchers.

**Optional Enrichment Activity:**

1. Students will use household items, similar to the various beak structures, to experiment how birds deal with their foods. Some examples could be using tweezers or clothespins to pick up raisins, a nutcracker for nuts, a straw with cooked ramen noodles, a plastic spoon in their mouth to scoop up frozen peas in water, a skewer or toothpick with marshmallows, bottle-top opener with bread, etc.
2. Using a variety of frozen vegetables, students will compete with each other as to who can gather the most material using the household items listed in #1.
3. Relays could be organized to carry the food from one student to another using the household items listed in #1.

**Assessment:** The teacher will evaluate the accuracy and appearance of the information gathered by the students connecting the beaks with the different birds.

***Science Standards at the End of 4<sup>th</sup> Grade:***

Standard 1: Benchmark #4  
Standard 2: Benchmark #1  
Standard 3: Benchmark #5  
Standard 5: Benchmark #1

***Technology Standards at the End of 4<sup>th</sup> Grade:***

Standard 1: Benchmark #1  
Standard 2: Benchmark #1, 2  
Standard 5: Benchmark #1, 3  
Standard 6: Benchmark #1,4

*Lesson Plan designed by Aleta Forbes and Cindy Holst as part of the  
2006 Grant-Kohrs Teacher Workshop.*

## “Identifying Birds by Their Beaks”

SHAPE	TYPE	ADAPTATION
	Cracker	Seed eaters like sparrows and cardinals have short, thick conical bills for cracking seed.
	Shredder	Birds of prey like hawks and owls have sharp, curved bills for tearing meat.
	Chisel	Woodpeckers have bills that are long and chisel-like for boring into wood to eat insects.
	Probe	Hummingbird bills are long and slender for probing flowers for nectar.
	Strainer	Some ducks have long, flat bills that strain small plants and animals from the water.
	Spear	Birds like herons and kingfishers have spear-like bills adapted for fishing.
	Tweezer	Insect eaters like warblers have thin, pointed bills.
	Swiss Army Knife	Crows have a multi-purpose bill that allows them to eat fruit, seeds, insects, fish, and other animals.