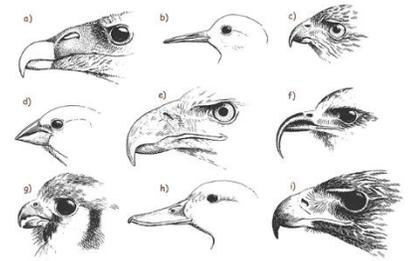


Video answer: Northern Bobwhite quail

Bird beak adaptations activity



Background

The purpose of this activity is to show how so many birds have different beaks and how their adaptation best suits their need. Adaptations are inherited characteristics that increase an organism's chance of survival. Those with the most helpful traits are more likely to live long enough to pass on their traits, which ensures a passing on of beneficial traits to the next generation. Each beak is specific to a different type of food source and has an advantage over the other beak types.

Materials needed

- 3 items to represent food (ex. Rice, Marshmallows, Dried macaroni, beans, beads, Rubber band)
- 3 Utensils (Ex. Tweezers, Spoon, Tongs, scissors, pliers, hair clip)
- 2 Trays/plates
- Pen/Pencil
- Cups

Hypothesize which beak you think will be the best for each different food. Fill in the blanks with your materials and match which beak will work best with your chosen food types.

Food

Beak type

Directions

In this activity you are a bird trying to eat a variety of seeds with a unique beak. The utensil you selected is your beak and the cup is your stomach. Your goal is to eat as much seed as possible in 20 seconds.

1. Pour both Items into a flat tray to represent bird seed. The tray will represent your habitat.
2. For 25 seconds try to pick up as many seeds as possible and place in your cup.
3. After the 25 seconds, count amount of the seeds you were able to pick up and record them on your table.
4. Repeat for 3 rounds for each food type
5. Compare the amount of seed you were able to collect with each beak.

Post-Activity

Beak Type	Food type 1	Food type 2	Food type 3

Questions

Was your hypothesis correct?

Did you notice which beak was harder to pick up food with and which one were easiest?

What would have happened to the birds that couldn't eat as good as the others in real life? Would their traits be passed down?

What characteristic do humans have that is close to the function of a beak?

Advanced questions

If there was a drought and many plants didn't produce seeds, which beaks would be affected? Why?

What would have happened to the birds that weren't as successful as the others in real life? Would their traits be passed down?

Beak Types

Beak Shape	Beak Type	What does the bird eat?
	Cracker	Seedeaters like sparrows and finches 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.