

Bird Beaks

Teacher Notes

Primary (F-6)

ACTIVITY DESCRIPTION

The Bird Beaks activity allows students to explain the role of different bird beaks in aiding the survival of particular bird species. Students will engage in an experiment that explores the effect of beak types on the diets of a variety of bird species and the environments in which they live. Students are then able to discuss how humans are changing these environments and how this affects bird populations.

INSTRUCTIONS

1. Meet the birds

Look at the first column of Table 1. Learn about each beak and which bird it belongs to.

2. Experiment

Use the different materials for 'beaks' (see other side for equipment list) to pick up different objects. Think about which 'beaks' are best for different types of food. Complete the table and then discuss what you discovered.

3. Discussion

Lower Primary (F-2)

1. Which beak was best for drinking nectar?
2. Which beak was the best for eating fish and frogs?
3. Why do you think it was difficult to pick up the marble with the chopsticks?
4. What might happen to the birds with long and sharp beaks if there were no fish left?

Upper Primary (3-6)

1. Which beak was the best for eating fish and frogs?
2. How does the shape and size of a bird's beak influence what it can eat?
3. Predict what might happen to the birds with long and sharp beaks if there were no fish left?

SUGGESTIONS FOR ASSESSMENT

Formative

1. Participation in the Bird Beak experiment
2. Completion of the Bird Beak activity table and questions
3. Students complete a short written summary of key findings of the experiment

BACKGROUND NOTES

A bird's beak or bill is actually a part of its skull that is covered with a tough layer of skin. Although some birds use their beaks to defend their territories, gather nesting materials or to weave a nest, the main purpose of the beak is to obtain food in the easiest and most effective way possible. As a result, birds that have different shaped beaks will often obtain food differently. For example, birds may use their beaks to tear meat, spear fish, crack hard seeds, catch insects, gather water plants, reach the nectar in flowers, probe into mud for tiny crustaceans, or filter tiny creatures from silt. These differences in the use of beaks for obtaining food are important for the survival of bird species as it enables more species to live in the same geographical area. This is because different species can feed on different food sources in different parts of the habitat without competing directly.

EQUIPMENT

You will need the following materials for each student group running the experiment:

- 1 set of tongs
- 2 chopsticks
- 2 wooden spoons
- 1 pair of tweezers
- 1 eye dropper or 1 large syringe
- Cotton buds
- Coins
- Marbles
- Water
- Bird Beaks Table (see Activity Materials printout)

ACCESS THIS ACTIVITY

Visit the **CERES School of Nature and Climate** website to download the activity - <https://sustainability.ceres.org.au/education-resources/curriculum-activities/>

Curriculum and RSS Links

KEY CONCEPTS

Biodiversity, Species Adaptation, Evolution, Habitats, Environmental Change

KEY LEARNING INTENTIONS

1. Students will be able to describe the use of animal body parts for different purposes
2. Students will be able to explain how particular adaptations aid survival
3. Students will be able to explain how changes in the environment can impact on living things

VICTORIAN CURRICULUM

Science

F - 2 Living things have a variety of external features and live in different places where their basic needs, including food, water and shelter, are met (VCSSU042)	3 - 4 Different living things have different life cycles and depend on each other and the environment to survive (VCSSU058)	5 - 6 Living things have structural features and adaptations that help them to survive in their environment (VCSSU074)
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SUGGESTED RESOURCESMART SCHOOLS MODULE LINKS



Undertaking the activity as described above links to the *ResourceSmart Schools Biodiversity Module - actions B1.1, B1.2, B1.3, B1.4*

Below is a list of extension activities that link to additional actions of the Biodiversity module:

1. Conduct a bird survey within the school grounds, a local park, reserve or at CERES Environment Park and record the findings (*ResourceSmart Schools Biodiversity Module - actions A1.1, A1.3, B1.1, B1.3*)
2. Students take note of the different beak types that exist within their local area (*ResourceSmart Schools Biodiversity Module - action B1.1, B1.2, B1.3*)
3. Students liaise with a local friends group or bird watching organisation to plan and develop a bird attracting garden that targets particular beak types or bird species (*ResourceSmart Schools Biodiversity Module - actions A3.3, C3.1, C3.3*)

Speak to your CERES ResourceSmart Schools Facilitator about further links to the Biodiversity module.