

Feeding Adaptations

Aim: For students to discover how animals are adapted for feeding.

Learning Objectives

- Know how some animals are adapted to feeding.
- Describe at least two general adaptations of predators and prey.
- Explain how adaptations help herbivores to survive.

Curriculum Links

- National Curriculum Science

Materials and equipment

- Tweezers (flat and pointed)
- Range of different seeds (sunflower, millet, small beans etc)
- Collection pots

Key Vocabulary

Carnivore, Herbivore, Omnivore, Predator, Prey, Adaptation, Survival

Lesson Plan

Starter – Key word splat

Students take it in turns to come up to the board and ‘splat’ the correct answer for the definition being read aloud. Difficulty can be increased by reading out species names rather than a full definition. This activity works well in teams.

Carnivore: Animals which eat other animals. Meat-eaters. Red Fox, Badger, Buzzard, Common Lizard, Grey Wolf.

Herbivore: Animals which only eat plants. Rabbit, Hare, Snail, Chaffinch,

Omnivore: Animals which eat animals and plants. Ant,

Predator: Animals which hunt other animals. These are carnivore species. Kestrel, Barn Owl, Spider.

Prey: Animals which are hunted by other animals. Often herbivores. Carnivores may be prey for larger carnivores.

Scavenger: An animal which steals and eats other animals kills. Crow.

Activity 1 – Predator and Prey Adaptations

Remind students what is meant by the term adaptation.

Show the photo of each predator, and ask students to write down two adaptations and why they are beneficial to the animal. Give students time to then share and compare with their neighbour, then their table. Ask each table to share one answer and make a note on the white board. Encourage new answers from each group. Then reveal the answers and see how many the group were able to identify. Repeat with the second animal, reversing the order in which you ask the tables to present their idea.

Repeat the activity with a focus on prey species. Remind students that prey can include carnivorous species, if they are predated by larger carnivores.

Activity 2- Investigating Beak Shape

Explain that birds show a wide range of variety in beak sizes which has helped them survive in many different habitats. Explain the method for the investigation, and ask students to make a prediction and create a table for their results (or print the simple table included in the PPT).

Working in small groups, preferably pairs, students will take it in turns to collect as many seeds as they can in one minute. Having a timer on the board is useful for this activity. Students then count how many of each type of seed they have collected and make a note in their tables. Repeat the activity with the other beak type.

Time permitting, allow each group to undertake each beak shape three times for reliable results. If time is not available, results can be pooled onto the board for a class average.

Students should calculate a group or class average. Ask students to evaluate their investigation, focusing on how they could improve methodology. Students should write a conclusion and link back to their prediction.

Plenary

Ask students to design an alien. Their design MUST identify how the species is adapted to it's environment and how the adaptation helps it to survive.

More able students may wish to create their environment first, whereas SEN students may benefit from being given a range of environments to choose from.