

Brilliant Feathers



This worksheet accompanies our
'The Science in our Skies' module.

To watch the videos, **sign in** to the S4 portal:

www.s4scienceportal.co.uk

And click on the 'Online Science
Workshops' button!

What are we learning?

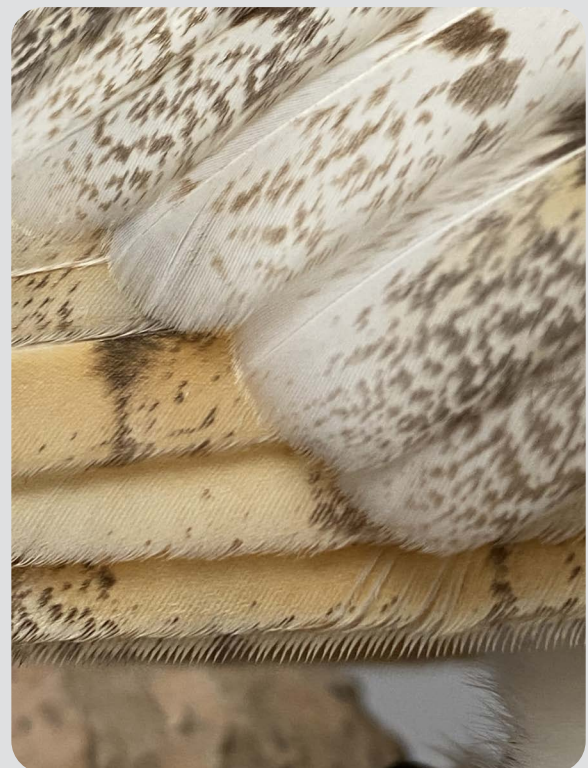
Specialised eyes and ears will only help an owl to successfully hunt if prey can't hear them coming!

Owl wings and feathers are different from other birds of prey.

Owls have large wings and small bodies, making them suited to gliding. By gliding, owls avoid flapping their wings which can be noisy.

They also have serrated fringes on the edge of their feathers, a bit like the edge of a bread knife. These serrated fringes:

1. Muffle the sound of air moving over them.
2. Shift that sound to a higher frequency (higher pitch), which mice and other prey animals can't hear.



Serrated fringes

Experiment

Who's feather is this?



ACTIVITY SHEET

You will be given feathers from different species of birds of prey. Hold them, feel them, study their edges and flap them.

How do the owl feathers feel?

How do the other feathers feel?

What sounds do the owl feathers make when you flap them?

What sounds do the other feathers make when you flap them?

From your examination of the feathers, what is different about owls' feathers that helps to give the owl the ability to fly silently?

You will also be given a feather from an unknown bird of prey to examine.

Does your unidentified feather come from an owl or a different bird of prey?

Do you think being able to fly silently is more important for a nocturnal owl than for a bird of prey that hunts during the day? Why do you think this?



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Teacher information

Curriculum links

This worksheet is designed to complement the National Curriculum for Wales, with links provided to the former KS3 science curriculum as well as the new Science and Technology AOLE.

Key Stage 3 Science (Interdependence of organisms): 1. the basic structure and function of some cells, tissues, organs and organ systems and how they support vital life processes

Key Stage 3 Science (Interdependence of organisms): 4. the interdependence of organisms and their representation as food webs, pyramids of numbers and simple energy-flow diagrams

Area of Learning and Experience: Science and Technology: The world around us is full of living things which depend on each other for survival

- The role of owls as predators within a food web.
- How owls are adapted to successfully hunt at night and camouflage during the day.

Resources to be sourced:

- Feathers from several different species of birds of prey, including owls.



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