

5 Birds

¹**endothermic:** warm-blooded animal.

²**aerodynamic:** with a shape that reduces air resistance

³**hollow:** with a hole or empty space inside.

Birds are **endothermic**¹ vertebrates. This means that they can regulate their body temperature.

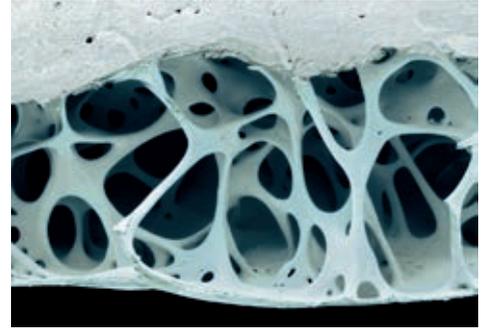
Most birds are adapted to fly, although some birds aren't able to.

They have **aerodynamic**² bodies that are covered in **feathers**, except for the legs which are covered in scales. Feathers protect birds from water and cold temperatures.

They have some **hollow**³ bones, which make them lighter and better for flight. Birds have **beaks** and don't have teeth.

They breathe using lungs which have **air sacs** to help reduce weight and oxygenate the muscles during flight.

They eat a variety of foods, some birds are carnivores and others are herbivores.



Microscopic view of the inside of a bird bone

Birds have very well-developed eyesight and ears. Many birds have eyes on the sides of their heads allowing them to have a wider **field of vision**.

Some birds **chirp** in order to communicate with other members of their species.

Birds reproduce **sexually** and perform **internal fertilisation**. All birds are oviparous and the parents **incubate** their eggs in order to keep them at the right temperature.

Classification of birds

Birds are classified according to what they eat. The size and shape of their beaks relates to the type of food they eat.



Hummingbirds can hover and fly backwards.



Pelican. Long beak with a pouch to carry fish.



Eagle. Strong, curved beak designed to tear meat.



Curlew. Long and curved beak to capture buried prey.



Macaw. Hard, thick beak to open seeds and fruits.

GLIL activities

14  In groups, prepare a short presentation about the characteristics of a bird in your local area.

15  Find examples of flightless birds. Explain why they're flightless and what other special adaptations they have.

16  Listen to the podcast and answer the questions:

- How many species of birds are there?
- What do some birds do to make sure they have enough food in winter?