



## Birds and Their Feathers

All birds have the same basic parts and functions, but are unique in their own ways. All birds are warm-blooded, which means they can control and maintain a constant body temperature even if the temperature around them changes. Cold-blooded animals can only control their body temperatures by moving into warmer or cooler areas.

All birds lay eggs – some birds lay eggs which are smaller than your fingernail, but others, like the ostrich, lay eggs which can weigh more than a kilogram.

All birds grow feathers, making them different from all other animals.

The different types of feathers help a bird survive. Feathers not only help a bird to fly or swim, they also:



protect its sensitive skin



help attract mates

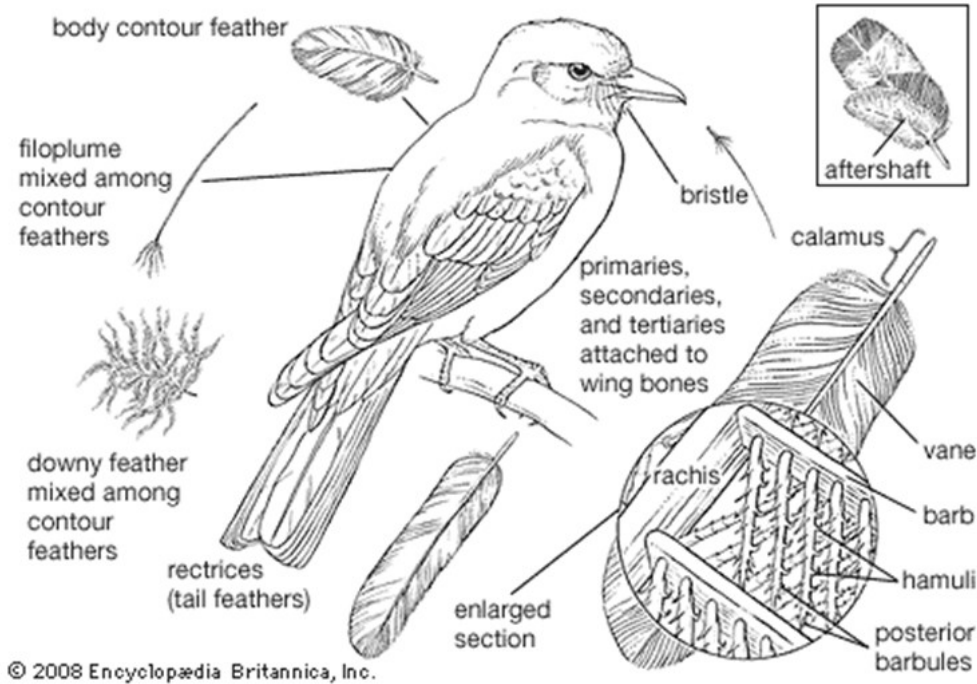


serve as insulators to trap body heat



serve as camouflage





Feathers are held together and in place by a hollow tube called the shaft.

The shaft is made of a very hard material called keratin.

Birds have three basic types of feathers:

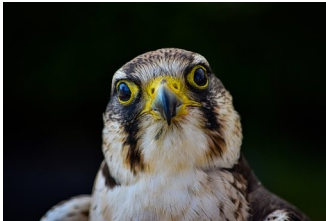
**Contour feathers** which cover the wings, body, and tail and streamline a bird to help give it a smooth, sleek shape. They are stiff, flexible, and very strong yet lightweight.

**Down feathers** are fluffy feathers which are close to the body, underneath the contour feathers. They help insulate a bird and keep it warm.

**Flight feathers** are special contour feathers on the wings, shaped to fan the air, creating "lift" to help a bird get off the ground, move about in the air, and land safely.

All birds have wings, even flightless birds such as ostriches and penguins. Birds' wings are attached to their chest muscles. In birds that actually fly those muscles are very powerful.

# k i d s Country



Birds often see much better than other animals, including people. They have very large eyes that focus keenly on near and far away objects. Unlike many mammals, birds can see colour. Birds use their keen eyesight to: find food; spot mates; keep an eye on enemies and find a place to live.



A bird's eyes are usually located toward the front and/or sides of its head, and may point almost directly forward or in opposite directions, giving it one of two types of vision or a combination of both. Birds also have a very keen sense of hearing, and this is another way they can protect themselves from danger.



Birds have adapted in all sorts of ways, in order to survive in different climates and environments. For example, seed eaters like sparrows and cardinals have short, thick conical bills for cracking seed. Birds of prey like hawks and owls have sharp, curved bills for tearing meat whilst some ducks have long, flat bills that strain small plants and animals from the water.



Osprey use their large curved claws to snatch fish from the water.



Pheasants and other birds that scratch the soil for food have nail-like toes. Robins have a long back toe, which lets them grab a perch tightly and many fast-running birds have three toes rather than four.