



Animal bones

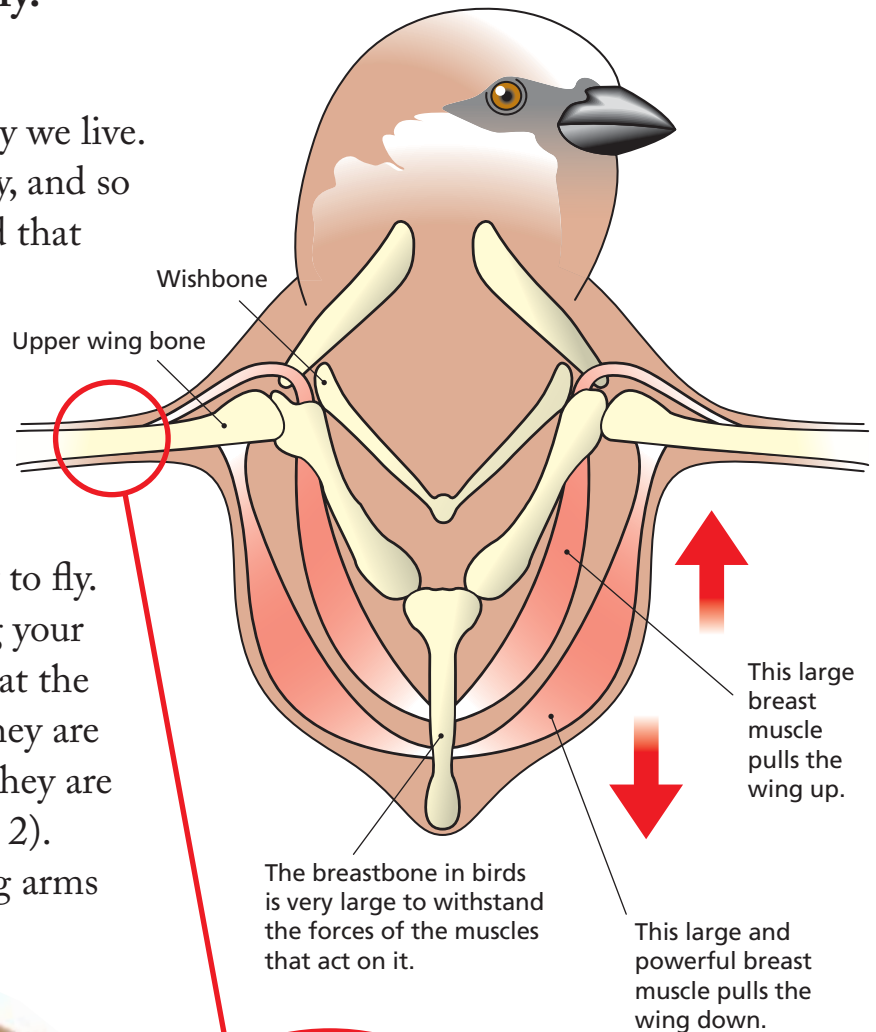
Animal bones are shaped differently because animals move differently.

Our bones are designed for the way we live. Other animals live quite differently, and so you should not be surprised to find that their bones are very different too.

Bird bones

Try flapping your arms and you will not take off. This is not just because you do not have wings: it is also because you are too heavy to fly. Your bones are designed for taking your weight on the ground. If you look at the bones of a bird, you will see that they are lightweight, thinner and hollow. They are designed for flying (Pictures 1 and 2).

Birds also have enormously long arms compared to us. Their arm bones are connected together inside their bodies with tendons, whereas our arms are set far apart so they can work separately.



The breastbone in birds is very large to withstand the forces of the muscles that act on it.

Human bone is heavy. Bird bones are thin and hollow, which makes them very light. Supporting struts keep them from collapsing.



▲▲ (Picture 1) These pictures show a bird skeleton. Look closely at the upper wing bone which has been partly cut away to show the inside. The bone is very thin and lightweight.



Frog bones

The frog is another animal with bones shaped very differently from ours. Frogs have enormously long legs with powerful muscles. The legs are normally folded up, but they can straighten instantly, causing the frog to spring away from danger (Picture 3).

With leg bones of this shape, frogs never walk: they can only hop.

▲ (Picture 2) The bones in bird wings are designed to work together so the bird can fly.

Summary

- Birds have long 'arm' bones which they use as wings.
- Bird bones are very lightweight.
- Frogs have very long hind leg bones to allow them to spring away from danger.

▼ (Picture 3) Powerful muscles and long bones in the frog's hind legs give it the power to jump long distances.

