ANIMAL BODY PARTS

AGES 7-11

Curriculum resource pack for the structure of animals

WWT is one of the UK's leading providers of outdoor learning. We welcome over 50,000 learners per year to our Wetland Centres where we provide unique opportunities for learners of all ages and abilities to interact with wetland wildlife from the UK and across the world.

We are open all year round with sessions for every season. Whether you're looking for curriculum-linked learning or simply a fun day out, there really is something for everyone. To find out more about our school visits programme please visit **learningzone.wwt.org.uk.**

Why wetlands?

WWT works across the UK to save, conserve and build wetlands for wildlife and people. Wetlands are one of the most important habitats on earth – storing huge amounts of CO_2, providing a natural way of stopping flooding and serving as a home for huge numbers of different creatures. Spending time in wetlands is also proven to improve mental health and wellbeing!

Using this resource pack

This resource pack contains classroom activities designed to cover key curriculum content as well as outdoor activities designed to promote nature connection and a love of the natural world. This is accompanied by supporting resources that can be printed or used on screen with your pupils.

CURRICULUM LINKS

England

KS2: Science

- Identify that humans and some other animals have skeletons and muscles for support, protection and movement
- Recognise that living things can be grouped in a variety of ways

Northern Ireland

KS2: The world around us

- Ways in which people, plants and animals depend on the features and materials in places and how they adapt to their environment

Wales

KS2: Science and Technology

- I can describe the features of organisms and recognise how they allow them to live, grow and reproduce for survival in their environment
- I can explore relationships between living things, their habitats and their life cycles

Scotland

Sciences

- Second: I can identify and classify examples of living things, past and present, to help me appreciate their diversity

INDOOR ACTIVITIES

YOU WILL NEED:

Structure of animals visual (see the end of this pack)

Other relevant resources

Activities:

- Make your own binoculars
- Make your own bird hide

School visits:

- We have a range of sessions available at KS2. Visit our Learning Zone to find out more **learningzone.wwt.org.uk**

NOTE: **Where you see a Q this indicates a question to ask your pupils.**

Activity 1: Introducing birds and mammals

- Display the 'Structure of animals' visual (see the end of this pack).

Q **Have you seen any of these animals before?**

- Allow learners time to talk to a partner and ask any questions they have. Point to each animal and say its name. The visual shows two of the main animal groups (birds and mammals)

Q **What is a bird?**

A bird is a type of animal that has feathers, wings and a beak.

Q **What special things can a bird do, that not all animals can do?**

Birds lay eggs and most birds can fly.

Q **What is a mammal?**

A mammal is a vertebrate, it has a skeleton inside its body and it has fur or hair.

Q **What special things can a mammal do?**

A female mammal gives birth to live young and feeds its babies with milk that it produces

Q **What animal group do humans belong to?**

Mammals.

Activity 2: Skeletons

- Tell learners that birds and mammals (including humans) are vertebrates. This means that they have a backbone and, in most cases, they have a skeleton inside their bodies. Take a few moments to let learners feel their bones under their skin (knuckles, wrists, elbows and knees are obvious bones to feel easily).
- Explain to learners that although they can't see it in the pictures on the 'Structure of animals' visual, all these animals also have bones inside their bodies. Ask learners to gently tap their heads. It's hard because under the skin (and hair) is our skull.

Q **Why do we have a skull?**

To protect our brains inside.

- The birds and mammals on this visual also have skulls (under their feathers or hair) to protect their brains.
- Label a bird showing where the skull is, then do the same with a mammal.
- Now ask learners to feel their chest. The long, thin ridges under the skin are called ribs.

Q **Why do we have ribs?**

To protect some of our organs e.g. heart and lungs.

- The birds and mammals on this visual also have ribs to protect their hearts and lungs.
- Label a bird showing where the ribs are, then do the same with a mammal.
- Ask learners to feel their backs. The hard bumpy, central bones are called vertebrae. Together the vertebrae are called the backbone or spine.

Q **Why do we have vertebrae?**

To support the body in standing up and protect the spinal cord, the bundle of nerves that connects all parts of the body to the brain.

- The birds and mammals on this visual also have backbones/spines.
- Label a bird showing where the spine is, then do the same with a mammal.
- Give learners a 'Structure of animals' visual each and ask them to label the skull, ribs and vertebrae with the function of each. They can use the writing frame: Here is the ____. It protects the ____ and _____.

Q **Are they in the same place on every animal?**

Yes and no. This can start an interesting discussion as animals are all different shapes and sizes, so they won't be in exactly the same place as each other but the skull is always in the head, the ribs are always in the chest and the spine is always down the animal's back.

Activity 3: Muscles

- Skeletons are vital for supporting the body (holding it up) and protecting delicate organs (e.g. the heart and lungs) but skeletons don't move on their own, they need muscles to move them.
- Ask learners to stretch their arm out, put their hand on their bicep and pull their hand towards their shoulder. Discuss what is happening and what they can feel (they will feel the muscle contract).
- Display the 'Structure of animals' visual (see final page of this document) and explain that muscles are used every time we move, and this is the same for the birds and other mammals on this visual.
- Name each animal and ask:

Q **How do muscles help this animal move?**

- List all the ways that animal might move e.g. fly, walk, swim, hop, peck, hang, paddle, run etc.

Q **Do each of these animals move in the same way?**

No. The bat flies, as do the birds, some birds even migrate, meaning they will have strong muscles to help them fly longer distances. Others paddle in water and some stretch their necks to peck or eat food from under the water. The otter and water vole swim, so have strong muscles in their tails and they walk/clamber on river beds and rocks, using muscles in their legs.

- Get learners to label how each part of the body helps the animal move e.g. 'Wings help bats to fly. Bats have very strong muscles in their feet and legs, to help them hang upside down'. Or 'Wings help mallards to fly. Mallards have strong muscles in their webbed feet and legs, to help them paddle in the water'.

OUTDOOR ACTIVITIES

Activity 4 : Bird and mammal spotting

- As a whole group, go out bird and mammal spotting in the playground, nearby park or on a local walk. Model and demonstrate how to stay quiet and still. Explain that this is how you will see the most animals. Running at birds or shouting and scaring animals is not kind.

Q How many mammals can you spot?

Q How many different types of birds can you see?

Q Which body parts can you see? (wings, legs, head, feet etc)

Q What is their skeleton supporting them to do? (fly, walk, hop, eat, perch, display etc)

Q Do any of the animals you've seen have to make any special movements? e.g. does that bird have to fly long distances, paddle through water or peck the ground to find food?

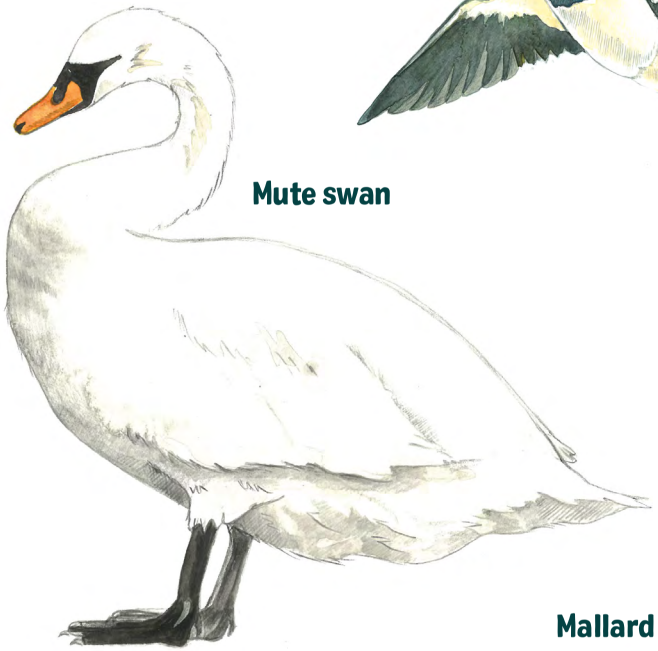
Activity 5: Imitating animals

- Read the following sentences to all learners, holding up the image of each animal as you do so.
- Ask learners to act out these movements and to feel, and be aware of, how they are moving, which body parts they are moving and which muscles they are using the most.
  - You are an otter, swimming in a river (learners might move both their arms and legs in a swimming motion but point out that all four limbs on an otter are called legs).
  - You are a swallow, perching on a tree branch (learners should curl their toes and tense their feet).
  - You are a mallard duck, paddling very quickly away from a hungry fox (learners should move their legs and feet fast).
  - You are a Canada goose, flying, with other geese (learners should use their arms to imitate the movement of their wings).
  - Repeat for other birds and mammals.

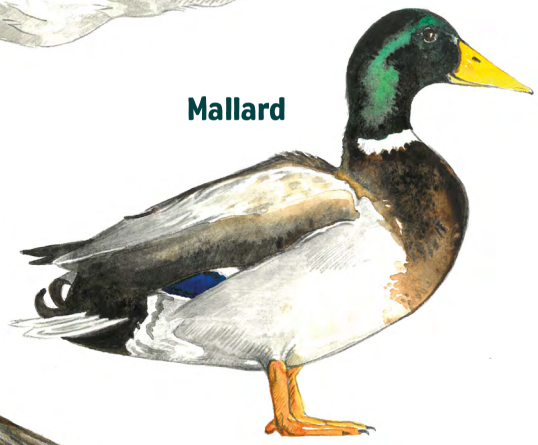
STRUCTURE OF ANIMALS

BIRDS

Swallow



Mute swan



Mallard

Canada goose

MAMMALS

Daubenton's bat

Otter

Watershrew

Water vole