AMAZING ADAPTATIONS

AGES 5-7

Curriculum resource pack for adaptations, evolution and inheritance

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, restore 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 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. At the end of the pack you will find a short quiz that can be used to reinforce and assess pupils' learning.

CURRICULUM LINKS

England

KS1: Science

- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)

Northern Ireland

KS1: The world around us

- Ways in which living things depend on and adapt to their environment

Wales

Foundation Phase: Science and Technology

- I can explore relationships between living things, their habitats and their life cycles

Scotland

First: Sciences

- By comparing generations of families of humans, plants and animals, I can begin to understand how characteristics are inherited

INDOOR ACTIVITIES

YOU WILL NEED:

Wetland bird adaptations cards (see the end of this pack)

Other relevant resources

Activities:

- Make your own binoculars
- Make your own bird hide

School visits:

- We run a wide range of sessions focusing on adaptations at KS1. 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.**

INDOOR ACTIVITIES

Introduction

- Over time, all animals have changed in special ways so that they can live in their habitat (home). Find out how wetland birds have become adapted to their habitats and how this helps them to thrive.

Q **What do you think we mean by an adaptation?**

Key word

ADAPTATION

Something about an animal's body which changes to help it to survive.

Activity 1: Bird body parts

Feet

- Give out one set of wetland bird adaptation cards to each group.
- Inform the class that they're first going to think about the birds' feet.
- Ask them to look carefully at the cards. Remind them that for any birds where you can't see their feet clearly in the main image there is a close-up of their feet on the reverse.
- Ask them to group the different birds according to the shape of their feet (there's no right answer at this stage).
- Display the main four types of feet.
- The birds' feet on the cards can be sorted into four main groups:

WEBBED FEET **LONG TOES**

TALONS **SHORT TOES**

- See if each group can sort the birds into these four main types. Once they have sorted them into their groups, look at each in turn.

Webbed feet

- These help the bird swim through the water.
- They are also useful when walking as they stop the bird from sinking in mud.
- These birds spend a lot of their time on the water.

Long toes

- These help to spread the load so that the bird doesn't sink in mud.
- They also help the bird to balance.
- These birds spend a lot of their time standing.

Short toes

- These can easily be curled around things to enable the bird to perch.
- They are also light and flexible, enabling the bird to fly well.
- These birds spend a lot of their time perching and flying.

Talons

- These enable birds of prey to catch and kill their prey.

Legs

- Inform pupils that they're now going to think about the birds' legs.
- A few of these birds have particularly long legs.
- Ask your pupils to make a separate group of birds with particularly long legs.

Q **Why do you think having long legs helps these birds to live in a wetland?**

A **Their long legs keep their bodies up out of the water.**

Neck

- We're now going to think about the birds' necks.
- Ask pupils to make a group of birds with particularly long necks.

Q **Why do you think these birds have long necks?**

A **A long neck enables these birds to reach down and get food from below the surface.**

Activity 2: Create your own bird

- Give out the Amazing Adaptations visual.
- Ask learners to draw a brand new, as yet undiscovered bird, and label the different body parts showing how the bird uses each to help it to survive.

OUTDOOR ACTIVITY

Activity 3: Observing local birds

- Go to a place outdoors. Find a quiet place where pupils can sit still in their groups.
- Ask them to look for different birds and think about how different parts of their bodies help them to survive.
- Get each group to report back to the class.

Q **Can you think of any other amazing adaptations animals have developed (not just birds)? Which are your favourites?**

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Have fun and do share your score to our social media accounts
We'd love to find out how you got on!

WETLAND BIRD ADAPTATION CARDS

- To make the cards, cut the line across the width of your paper then fold each half in half again so you end up with the main picture on one side and the close-ups of the bill and legs / feet on the other. Stick the two sides together with glue.

Fold

MUTE SWAN

© ANDI2... @ flickr

Cut

Cut

Fold

REED WARBLER

© Imran Shah @ flickr

Fold

© Tony Sutton @ flickr

Cut

AVOCET

© Nigel @ flickr

© Nigel @ flickr

Cut

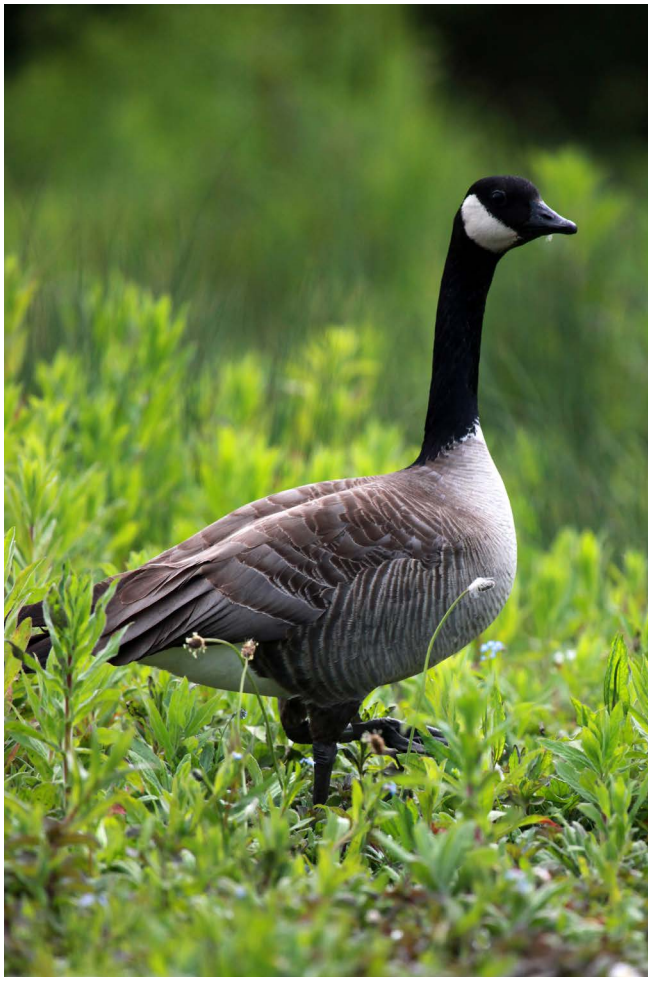
© Don Sutherland @ flickr

Fold

MARSH HARRIER

©Silver Leapers @ flickr

© Arvind Agarwal @ flickr



Fold

Cut

CANADA GOOSE

© Blondinrikard Fröberg @ flickr

Cut

Fold

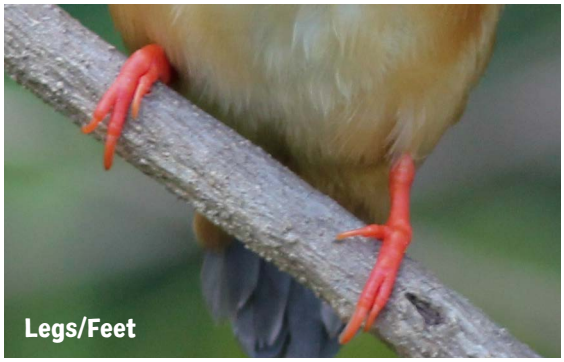
GREY HERON

© Janie Easterman @ flickr

© Melvin Yap @ flickr

Fold

KINGFISHER



Legs/Feet

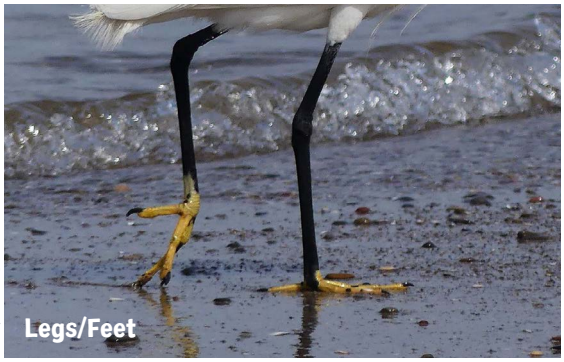
Bill

Cut

Cut

Fold

LITTLE EGRET



© ianpreston @ flickr

Legs/Feet

© Steve Herring @ flickr

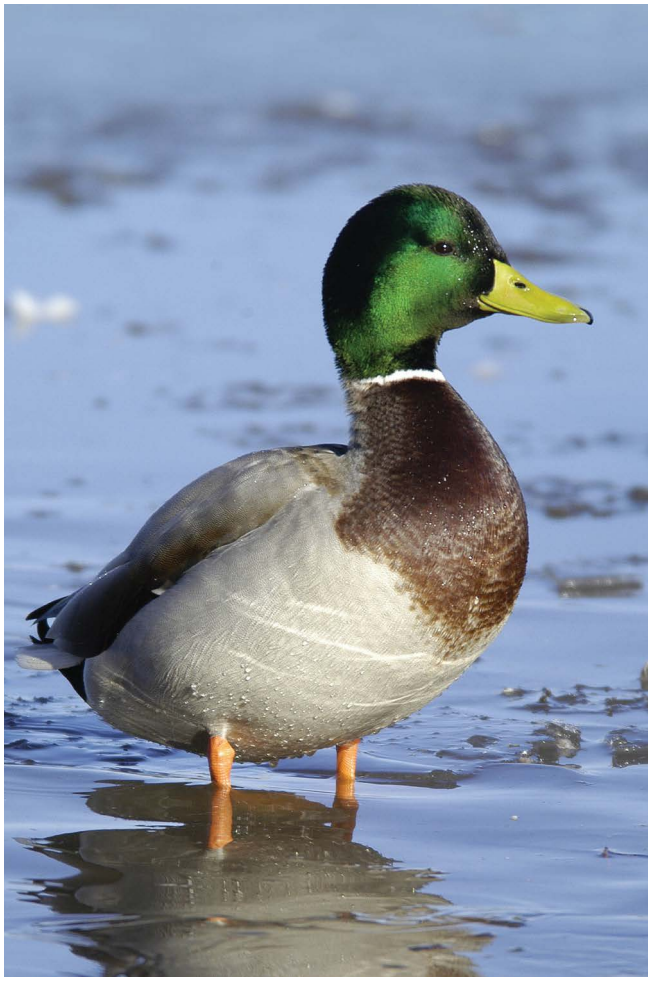
Bill

Fold

OSPREY

Cut

Cut



Fold

MALLARD

Feet

WEBBED FEET

Feet

LONG TOES

Feet

SHORT TOES

Feet

TALONS

Legs

LONG LEGS

Neck

LONG NECK

QUIZ: AMAZING ADAPTATIONS

Round 1: Picture round

The following birds were all featured in the Amazing Adaptation Cards.

Q Can you name them?

1 .....

2 .....

3 .....

4 .....

5 .....

Round 2: Odd one out

In each list below, only one bird has webbed feet. Circle the bird with webbed feet.
If you get stuck, use your Amazing Adaptations Cards to help you.

CIRCLE the bird with webbed feet.

6	Reed Warbler	Mute Swan	Osprey
7	Canada Goose	Kingfisher	Marsh Harrier
8	Grey Heron	Dipper	Mallard Duck

In each list below, only one bird has talons to catch its prey.

CIRCLE the bird with talons.

9	Mallard Duck	Mute Swan	Osprey
10	Marsh Harrier	Reed Warbler	Canada Goose

Round 3: Which is the longest?

If you get stuck, use your Amazing Adaptation Cards to help you.

CIRCLE the bird that has the longest legs.

11	Reed Warbler	Grey Heron	Kingfisher
12	Little Egret	Dipper	Mallard Duck
13	Dipper	Avocet	Reed Warbler

CIRCLE the bird that has the longest neck.

14	Mute Swan	Osprey	Mallard Duck
15	Marsh Harrier	Grey Heron	Kingfisher

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ANSWERS: AMAZING ADAPTATIONS

Round 1: Picture round

The following birds were all featured in the Amazing Adaptation Cards.

Q Can you name them?

1 (Mute) Swan

2 (Grey) Heron

3 Avocet

4 Mallard duck

5 Dipper

Round 2: Odd one out

In each list below, only one bird has webbed feet. Circle the bird with webbed feet.
If you get stick, use your Amazing Adaptations Cards to help you.

CIRCLE the bird with webbed feet.

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7	**Canada Goose**	Kingfisher	Marsh Harrier
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