

# Habitats

## Activities for children aged 7–11 years

WWT has a well-established and well-loved education programme that we run across the UK at our ten wetland sites. We've designed these short activities based on one of our school activities. We've made it to connect you and your family to the natural world and help you to work with your children to feel great about nature and understand some of the things that WWT love and care about.

### 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<sub>2</sub>, providing a natural way of stopping flooding and serving as a home for huge numbers of different creatures.

This activity will help you and your children learn about habitats including the wetlands we look after.

**These activities link to the National Curricula for science in England, Northern Ireland, Scotland and Wales.**

#### Stuff you need:

- Paper
- Colouring pens and pencils
- Ruler and scissors (optional)
- Wetland Wildlife Cards (see final pages of this document – optional)
- String or wool
- 'Habitats' visual sheet printed out (see final pages of this document – optional)

**Note:** Where you see a  this indicates a question to ask your child

## Indoor activities

(40 minutes)

- Look at the 'Habitats' visual sheet with your child and explain that this is a wetland.
- A wetland is a type of habitat. A habitat is a place where an animal or plant lives.
- Within a habitat there can be a number of micro-habitats.
- The best way to think of it is to think of a garden. The habitat is the garden. Micro-habitats in the garden would include things like the lawn, a pond, under a rock, under a log, in a tree etc.

#### Key word: **WETLAND**

A wetland is land which is wet most or all of the time.

#### Key word: **HABITAT**

A type of natural environment where plants and animals live.

#### Key word: **MICRO-HABITAT**

A small-scale environment that forms part of a larger habitat.

- Can your child think of other examples of habitats and the micro-habitats within them?

Examples of habitats	Garden	Woodland	Desert	Beach
Examples of micro-habitats	<ul style="list-style-type: none"> <li>- Lawn</li> <li>- Pond</li> <li>- Under a rock</li> <li>- Under a log</li> <li>- On a tree</li> </ul>	<ul style="list-style-type: none"> <li>- Under a log</li> <li>- Hole in a tree</li> <li>- Under leaves</li> <li>- In rotting wood</li> <li>- In the soil</li> </ul>	<ul style="list-style-type: none"> <li>- Under a rock</li> <li>- Beneath the sand</li> <li>- Oasis</li> </ul>	<ul style="list-style-type: none"> <li>- Rockpool</li> <li>- Beneath the sand</li> <li>- Under a rock</li> <li>- Under seaweed</li> </ul>

- Look again at the 'Habitats' visual with your child.

**Q Which micro-habitats can you see?**

(e.g. a tree, a pile of rocks, a bush, grass, a pond, a hole in the ground, a rotting log, a bird nest box)

- Get your child to label each of the micro-habitats.
- Go through each micro-habitat:

**Q What do you think might live in each?**

**Q What makes this a good place for this particular animal to live?**

Micro-habitats	Bird nest box	Hole in the ground	Log	Pond	Rock pile	Bushes	Trees	Under the ground
Examples of animal that might live there	Blue tit Great tit Sparrow	Rabbit Fox Badger	Spider Woodlouse Beetle	Ducks Fish Frog	Lizard Snake Toad	Ladybird Butterfly Grasshopper	Birds Squirrel Bat	Earthworm Centipede Millipede

- Take your wetland wildlife cards.
- Place some of the cards around the visual and use string or wool to show where each of these animals might live (use the string / wool to connect the animal card to its habitat).

**Take it outside:**

- Go outside (take your wetland wildlife cards with you if you have them). Challenge your child to find as many micro-habitats as they can.

**Q What would you call each micro-habitat?**

**Q Which types of animals do you think might live there?**

**Q Why does this micro-habitat make a good home for this type of animal?**

- Call the name of an animal (you can use the wetland wildlife cards or some of the animals listed above). Can your child find an appropriate micro-habitat where this animal might live? If not, could you create one?
- Get your child to choose an animal that they really like that may be found in this area. Get them to use natural materials to create a micro-habitat / home for this animal.

**Q What features does it have that help to provide for that animal's needs?**

**Q How do you think your animal would feel living here? Why?**

- Go to each of the micro-habitats and get your child to record on a **notes and sketches** page which animals and how many of each they see.

**Q Which areas had the most living things?**

**Q Which areas had the least?**

**Q Why do you think that might be?**

**Q Which areas had the greatest diversity (lots of different types) of plants and animals?**

**Q What types of animals live in the grass?**

- Now go to an area that has paving or tarmac.

**Q Which animals live on the tarmac?**

(Many animals might travel across the tarmac or live beneath it, but very few animals live on it).

**Q Why might this be a problem?**

**Q What if we tarmacked the whole area?**

- Discuss how this might affect the number and types of plants and animals that live there.

**Q Imagine you were one of the animals living there. How would you feel? Why?**



@WWTWorldwide



**Have fun and do share your work to our social media accounts –  
we'd absolutely love to see it!**

# Habitats visual



# Wetland wildlife 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 a picture on one side and the information on the other. Stick the two sides together with glue.



## Grey heron

**Diet:** Fish, small birds such as ducklings, small mammals and amphibians

**Wetland adaptations:** Long neck allows it to get to its prey beneath the water

**Classification:** Vertebrate - Bird

**Habitat:** Ponds, lakes, rivers and estuaries

**Additional information:** Stands stock still quietly waiting for its prey

Cut



## Kingfisher

**Diet:** Fish, invertebrates, amphibians

**Wetland adaptations:** Their eyes have adapted to make prey look closer to the surface and they have a special membrane to protect their eyes when they hit the water

**Classification:** Vertebrate - Bird

**Habitat:** Lakes, streams, rivers and canals

**Additional information:** They dig nest tunnels in vertical, sandy river banks



## Grey heron

**Diet:** Fish, small birds such as ducklings, small mammals and amphibians

**Wetland adaptations:** Long neck allows it to get to its prey beneath the water

**Classification:** Vertebrate - Bird

**Habitat:** Ponds, lakes, rivers and estuaries

**Additional information:** Stands stock still quietly waiting for its prey

Fold



## Grey heron

**Diet:** Fish, small birds such as ducklings, small mammals and amphibians

**Wetland adaptations:** Long neck allows it to get to its prey beneath the water

**Classification:** Vertebrate - Bird

**Habitat:** Ponds, lakes, rivers and estuaries

**Additional information:** Stands stock still quietly waiting for its prey



Cut

## Stickleback

**Diet:** Insects, crustaceans, tadpoles and smaller fish

**Wetland adaptations:** Some sticklebacks have adapted to be able to cope with both fresh and saltwater meaning they can live in both rivers and the sea

**Classification:** Vertebrate - Fish

**Habitat:** Ponds, lakes, ditches and rivers

**Did you know?** The male develops a bright red throat and belly and performs a courtship dance to attract a mate. The male also builds and protects the nest

Cut



## Eel

**Diet:** Plants, dead animals, fish eggs, invertebrates and other fish

**Wetland adaptations:** Long, narrow body enables it to get into crevices

**Classification:** Vertebrate - Fish

**Habitat:** Rivers and ditches

**Did you know?** Adult eels migrate 3,000 miles (4,800 km) to the Sargasso Sea to spawn. It then takes the young eels two or three years to drift back to their homes here in the UK



Cut

## Smooth newt

**Diet:** Insects, caterpillars, worms and slugs while on land; crustaceans, molluscs and tadpoles when in the water

**Wetland adaptations:** Can breathe through their skin

**Classification:** Vertebrate - Amphibian

**Habitat:** Ponds in spring; woodland, grassland, hedgerows and marshes in summer and autumn; hibernates underground, among tree roots and under rocks and logs over winter

**Did you know?** Their body gives out a poisonous fluid when they feel threatened

Cut



## Common frog

**Diet:** Invertebrates and smaller amphibians

**Wetland adaptations:** Eyes are positioned on top of the head allowing the frog to see whilst its body is under the water

**Classification:** Vertebrate - Amphibian

**Habitat:** Ponds during the spring; woodland, gardens, hedgerows and grassland in summer and autumn; hibernate in pond mud or under log piles in winter

**Did you know?** Frogs hop whereas toads crawl



Cut

## Common toad

**Diet:** Insects, spiders, slugs and worms

**Wetland adaptations:** Slightly webbed back feet help them to swim

**Classification:** Vertebrate - Amphibian

**Habitat:** Ponds in spring (prefer larger, deeper ponds than frogs); woodland, gardens, hedgerows and grassland in summer and autumn; hibernate under log piles, stones or in crevices over winter

**Did you know?** Toads usually have dry bumpy skin whilst frogs usually have moist slimy skin

Cut



## Coot

**Diet:** Plants, seeds, snails and insects

**Wetland adaptations:** Flaps of skin on the toes act in the same way as webbed feet when swimming and stop them from sinking in mud

**Classification:** Vertebrate - Bird

**Habitat:** Lakes, ponds and rivers

**Did you know?** The white part on the front of its head gave rise to the phrase "as bald as a coot"



Cut

## Grey heron

**Diet:** Fish, small birds such as ducklings, small mammals and amphibians

**Wetland adaptations:** Long neck allows it to get to its prey beneath the water

**Classification:** Vertebrate - Bird

**Habitat:** Ponds, lakes, rivers and estuaries

**Did you know?** Herons can stand absolutely still waiting for their prey

Cut



## Kingfisher

**Diet:** Fish, invertebrates, amphibians

**Wetland adaptations:** Their eyes have adapted to make prey look closer to the surface and they have a special membrane to protect their eyes when they hit the water

**Classification:** Vertebrate - Bird

**Habitat:** Lakes, streams, rivers and canals

**Did you know?** They dig nest tunnels in vertical, sandy river banks

Cut



Cut

## Daubenton's bat

**Diet:** Insects.

**Wetland adaptations:** Can use its feet and tail to scoop up insects from the water's surface

**Classification:** Vertebrate - Mammal

**Habitat:** Woodland close to ponds and lakes

**Did you know?** These bats are often called 'water bats' because they feed so often over water

Cut



## Water vole

**Diet:** Plants

**Wetland adaptations:** Waterproof fur

**Classification:** Vertebrate - Mammal

**Habitat:** Rivers, streams, ditches, ponds, lakes, marshes, reedbeds

**Did you know?** Despite being sometimes referred to as a 'Water Rat', there is no such thing - there are brown rats, black rats and water voles

Fold



Cut

## Otter

**Diet:** Fish, waterbirds, amphibians and crustaceans

**Wetland adaptations:** Webbed feet; dense fur to keep them warm; can close their ears and nose when underwater

**Classification:** Vertebrate - Mammal

**Habitat:** Lakes, rivers, streams, coasts

**Did you know?** After disappearing from large parts of the UK numbers are growing due to improved water quality

Cut



Fold

## Grass snake

**Diet:** Amphibians, fish, small mammals and birds

**Wetland adaptations:** Have developed very strong swimming technique

**Classification:** Vertebrate - Reptile

**Habitat:** Ponds, lakes, grassland, woodland

**Did you know?** Grass snakes are Britain's largest reptile



Cut

## Pond skater

**Diet:** Small insects

**Wetland adaptations:** Have water-repellent hairs on the bottom of their feet, enabling them to walk on the surface film of the water. They hunt by detecting vibrations in this film

**Classification:** Invertebrate - Insect

**Habitat:** Ponds, lakes, ditches and slow-flowing rivers

**Did you know?** Pond skaters can actually skate, jump and fly

Cut



## Daphnia (water flea)

**Diet:** Plants, bacteria

**Wetland adaptations:** Antennae have developed for use in swimming

**Classification:** Invertebrate - Crustacean

**Habitat:** Lakes and ponds

**Did you know?** They are transparent. You can even see their heart beating inside them



Cut

## Grayling

**Diet:** Insects, spiders, crustaceans, molluscs, and smaller fishes

**Wetland adaptations:** One of the most streamlined fish, enabling it to swim faster

**Classification:** Vertebrate - Fish

**Habitat:** Fast, clean rivers near the source

**Did you know?** Known as the 'lady of the stream' due to its brightly coloured dorsal fin.

Cut



## Water hoglouse

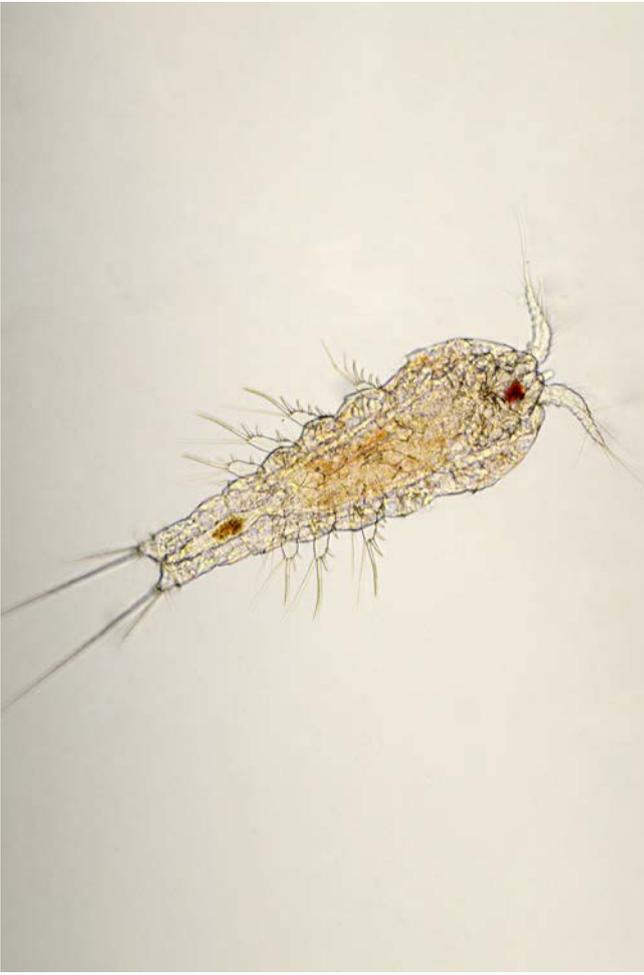
**Diet:** Decaying animals and plants

**Wetland adaptations:** Its gills are at the back of its body, allowing it to breathe when its head is buried in mud

**Classification:** Invertebrate - Crustacean

**Habitat:** Ponds and ditches

**Did you know?** The water hoglouse is closely related to the woodlouse



Cut

## Cyclops

**Diet:** Algae, decaying animals

**Wetland adaptations:** Bullet-shaped body allows fast change of direction

**Classification:** Invertebrate - Crustacean

**Habitat:** Ponds, lakes and slow-flowing rivers and streams

**Did you know?** They only have one eye

Cut



## Greater water boatman

**Diet:** Invertebrates, tadpoles and small fish

**Wetland adaptations:** Hind legs have developed into paddle shapes to aid swimming

**Classification:** Invertebrate - Insect

**Habitat:** Ponds, ditches and canals

**Did you know?** The greater water boatman can trap air underneath its wing cases so it can breathe under water



Cut

## Dragonfly

**Diet:** Small insects

**Wetland adaptations:** Bullet-shaped body allows fast change of direction

**Classification:** Invertebrate - Insect

**Habitat:** Ponds, lakes, canals and ditches

**Did you know?** Dragonflies have been around for 300 million years

Cut



## Ramshorn snail

**Diet:** Plants

**Wetland adaptations:** Can trap and store air inside their shells

**Classification:** Invertebrate - Mollusc

**Habitat:** Ponds

**Did you know?** Their name comes from the shape of their shell which resembles a ram's horn



Cut

## Pond snail

**Diet:** Plants

**Wetland adaptations:** Have a respiratory tube that acts like a snorkel so they can breathe without coming to the surface

**Classification:** Invertebrate - Mollusc

**Habitat:** Rivers, lakes and ponds

**Did you know?** It is thought to have brilliant learning abilities and the snail's memory has been widely studied by scientists

Cut



## Freshwater limpet

**Diet:** Plants

**Wetland adaptations:** Can cling on to rocks so doesn't get taken by the current

**Classification:** Invertebrate - Mollusc

**Habitat:** Rivers, ponds, lakes

**Did you know?** Although called limpets, they are actually in the same family as ramshorn snails

Cut

Fold



Cut

## Sludge worm

**Diet:** Bacteria

**Wetland adaptations:** Can breathe through their skin

**Classification:** Invertebrate - Worm

**Habitat:** Ponds, lakes, rivers

**Did you know?** They can survive in heavily polluted water

Cut



Fold

## Leech

**Diet:** Fish, freshwater snails, tadpoles, worms

**Wetland adaptations:** Can breathe through their bodies

**Classification:** Invertebrate - Worm

**Habitat:** Ponds and streams

**Did you know?** Many leeches feed on the blood of other animals (without killing them)

Fold



Cut

## Flatworm

**Diet:** Daphnia, dead animals

**Wetland adaptations:** Breathe through their skin

**Classification:** Invertebrate - Worm

**Habitat:** Ponds

**Did you know?** If cut in two, they grow into two separate worms

Cut



Fold

## Water spider

**Diet:** Insects, crustaceans, tadpoles and smaller fish

**Wetland adaptations:** Traps air in the hairs on its body enabling it to breathe underwater

**Classification:** Invertebrate - Arachnid

**Habitat:** Ponds, lakes, very slow-flowing streams

**Did you know?** The water spider is the only spider in the world that spends its life under water

Fold



Cut

## Great raft spider

**Diet:** Invertebrates, small fish, water spiders

**Wetland adaptations:** Hairy legs enable them to walk on the surface of the water

**Classification:** Invertebrate - Arachnid

**Habitat:** Ponds, ditches, bogs

**Did you know?** Great raft spiders have been known to hunt underwater by running down the stems of plants to reach their prey

Cut

Fold