EXPLORING OUR WILD ISLES: WOODLANDS

ACTIVITY GUIDE FOR PRIMARY TEACHERS AND YOUTH GROUP LEADERS

SAVE OUR WILD ISLES

AGE 4 – 11 YEAR OLDS

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INTRODUCTION

Have you ever taken the time to think about all the amazing landscapes we have in the UK? Despite being small, the combination of weather, climate and ancient rock formations we have in the UK means that we are lucky enough to have some of the most diverse and beautiful landscapes on Earth.

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From our high craggy mountains, boggy moorlands, rushing rivers, dense green forests, tranquil lakes, wildflower meadows, rocky coastlines and wild seas, each of these unique landscapes is packed full of different habitats with a huge variety of plants, animals and fungi.

Because of this, the UK is home to some amazing natural wonders: spectacular murmurations of starlings, dense woodlands sprinkled with bluebells, rutting deer on frosty mornings, glittering blue damselflies dancing over streams, damp forest floors exploding with mushrooms – it's all here, right on our doorstep!

But despite all of this, we have not been protecting our precious nature. We have farmed intensively across almost all of our land, we have expanded towns and cities putting pressure on surrounding countryside habitats, built miles of roads and trainlines carving up wild habitats and polluted our waters with plastics and pesticides.

The UK is now one of the most nature depleted countries in the world and many of our unique habitats are now under pressure. Over the last 50 years we've had huge losses in numbers of wildlife. More than one in seven native species are now facing extinction and more than 40% are in decline including some of our most iconic species like bumblebees and hedgehogs.

GETTING TO KNOW WOODLANDS

Our natural trees are essential. They purify our air, capture carbon and provide food and shelter for thousands of species. But centuries of poor management and destructive development has left the UK with only 13% tree cover, and only half of this is natural woodland. In fact, we are one of the least wooded countries in Europe.

Some woodlands are flooded with bluebells each spring, while mysterious fungi poke their way through the soil each autumn. Others are temperate rainforests, rarer than tropical rainforests, where the trees cascade with lichens, and the surfaces are thick with mosses and ferns. And in the north sits the great Caledonian pinewood that faces up to our harshest winters and weathers our worst storms. But what none of our woodlands can weather is the impact of humans.

Many of our trees have been cleared for land uses like farming and for development like road and house building. We've replaced a lot of natural woodland with fast-growing non-natural trees, as a resource for burning and building. But when our natural woodlands are managed appropriately, they can provide these benefits as well as supporting nature.

Sadly, our natural woodlands have now almost vanished. The 600,000 hectares (that's more than half a million football pitches) of ancient woodland we have left need protecting and restoring back to good ecological health. These remaining tiny, isolated fragments are far from safe. They're at risk from development, invasive non-natural species like grey squirrels and rhododendrons, grazing by deer, and the climate emergency. Diseases including the ash dieback fungus is becoming an alarming problem, predicted to kill 80% of ash trees in the UK.

Losing our ancient woodlands means losing the precious wildlife they support, such as willow tits – our fastest-declining resident bird – lesser spotted woodpeckers, and wood warblers. Mammals such as red squirrels and hazel dormice are barely clinging on, while woodland butterflies have seen their UK population drop by 41% in just 30 years.

If we lose our woodlands, in particular our ancient woodlands, we also lose their capacity to capture and store carbon, one of our vital defences in the battle against the climate emergency. They can also help protect against flooding, stabilise the soil, help plant pollination, and can even absorb pollution, cleaning the air that we breathe.

However, saving our woodlands isn't just about planting more trees. We need to start by protecting what we still have and making these special places even better for wildlife. Connecting and buffering these areas will also help – it will give our trees a chance to naturally regenerate where they can. When we do plant trees, they need to be the right trees, planted in the right place so that our woodlands of the future can help us fight climate change, and help our rapidly declining woodland wildlife recover too.

Woodland facts

- Around 4 billion tonnes of carbon are stored in UK woodland, 70% is in the soil.
- 326 species completely depended on oak trees, including 257 invertebrate species.
- Woodland covered 32,400 sq km (or 13%) of the UK in 2022.
- 2,000 species invertebrates such as spiders, slugs, moths, beetles are associated with veteran trees.
- Oak trees live for many centuries, once it's older than 4 centuries, an oak tree is considered to be 'ancient'.

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WHAT'S IN THIS GUIDE

This guide is designed to be used by teachers and youth group leaders and contains activities suitable for children aged 4 – 11 (Key Stage 1-2, First-Second Level). These activities are all designed to encourage children to connect with UK nature, explore the biodiversity of their local green spaces and learn more about woodland ecosystems. We recommend using the Save Our Wild Isles presentation in combination with these activities.

Activity 1:
Which season?
(age 4-11)

Activity 2:
The wood wide web
(age 7-11)

Activity 3:
Stepping into a better future
(age 7-11)

Activity 4:
Once upon a time
(age 7-11)

Activity 5:
Local land use
(age 7-11)

Activity 6:
Nature-friendly careers


ACTIVITY 1
WHICH SEASON?
Timer 40 minutes
Ages 4-11
You will need
Instructions
Example statements:
During this season...
Questions
Safety
You will need
Instructions

Sustainable Development Goals

The activities in this guide link to the following Sustainable Development Goal:

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

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ACTIVITY 1
WHICH SEASON?

Time: 40 minutes **Age: 4-11**


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Curriculum links: England: Science, Geography, Physical education, Scotland: Sciences, Social studies, Health and Wellbeing (Physical education), Wales: Science and technology, Humanities, Physical education, Northern Ireland: Geography, Science and technology, Physical education.

Seasonal changes have a huge impact on our woodlands. It determines colours, leaf cover, ground cover, wildlife and even smells! This activity invites pupils to think about the link between the seasons and woodlands. Adapt as appropriate for the age group.

You will need

- Access to the internet/books.
- Pen and paper.
- Open space (ideally outside).
- Four clearly labelled bases - Summer, Autumn, Winter and Spring.

Instructions

1. Talk to pupils about how light, rain and temperature changes between the seasons.
2. Divide the class into four groups – each group is assigned a season to research.
3. Ask pupils to write down statements (on individual pieces of paper) about the changes to woodlands at that time of year in relation to:

i. Colours	iv. Ground cover	vii. Growth
ii. Plants	v. Wildlife	viii. Sounds
iii. Leaf cover	vi. Smells	ix. Light

4. Make sure pupils have labelled their season on their statements, collect them and shuffle them.
5. In an outside space or a large space inside, set up four season bases – Summer, Autumn, Winter and Spring.
6. With pupils standing in the centre of the four bases, read out each statement. Pupils must run to the season/base which they think the statement is describing. You can turn this into a game of 'last man standing'.

Example statements:

During this season...

... buds start to appear as well as pollinators. (SPRING)	...the days are getting shorter, the leaves are turning brown, orange and yellow. (AUTUMN)	...woodlands smell damp and musty with decomposing leaves on the ground. (AUTUMN)

Questions

- What other changes affect the woodland? What about human activity?
- How do our school grounds change each season?

Safety

- Make sure pupils are dressed appropriately for spending time outside.

ACTIVITY 2
THE WOOD WIDE WEB

Time: 20 minutes **Age: 7-11**

Curriculum links: England: Science, Scotland: Sciences, Wales: Science and technology, Northern Ireland: Science and technology.

Oak trees are amazing - they can live for hundreds of years and are classed as ancient once it reaches 400 years old. Oak trees communicate with each other. Oak trees (and most trees actually) are connected underground by fungi which wrap around the trees roots in a stringy mat known as a mycorrhizal network. The relationship between trees and fungus is a symbiotic one which means both the trees and the fungi benefit from it. Trees get minerals the fungi donate to them, and the fungi get to take some sugars from the trees' roots. Scientists think that trees might also use the fungi network to communicate and they have given it the nickname the 'wood wide web'.

You will need

- Outside space.
- String or skipping ropes tied together (long enough so 6-8 pupils can spread out).
- Photos of an oak tree (optional).
- Fact cards.
- Paper and pencil (per group).

Instructions

1. Begin by using the oak tree images or go outside and find an oak tree to give pupils a visual experience of what an oak tree looks like:
   a. Oak tree - mature oak trees have a distinctive shape and are impressively big trees.
   b. Oak leaf - oak leaves are easy to identify as they are unique - notice the shape, the colour and also the texture of the leaf.
   c. Acorn - oak trees produce acorns and you can find these on woodland floors in the late summer and autumn. They can be green or brown depending on how old they are, and they have a really smooth surface. Acorns sit in a little cup which attaches them to the tree.
2. You are going to make a human wood wide web - the teacher is the oak tree in the centre and the pupils make up the fungal networks. Divide the pupils into groups of 6-8. Each group is a fungal network which attaches to the oak tree in the centre (teacher).
3. Pupils spread themselves along the string while the teacher holds from the centre. The lines don't have to be straight but don't let pupils stand too closely to each other otherwise they will overhear each other.
4. The wood wide web is a way to pass on information, just like the world wide web that we all use every day. The teacher begins by showing the first pupil in each group (the one nearest to the centre) a fact from the fact cards.
5. Pupils then pass on the fact down the wood wide web by whispering it to the next pupil along the fungal network (string). The final pupil on the wood wide web writes down the fact.
6. Once all six facts are sent down each of the fungal networks, the pupils can come to the centre and compare their results.

Questions

- Discuss the final question from fact card six - can you help? What can pupils and schools do to protect oak trees - can each pupil plant one acorn in autumn?
- Do you know how other wild plants and animals communicate? Smells, sounds, vibrations - the wild world is full of communication!

Safety

- Make sure pupils are dressed appropriately for spending time outside.

ACTIVITY 2
THE WOOD WIDE WEB
FACT CARDS

SAVE OUR WILD ISLES

Fact One:
At 400 years old, I am called an ancient oak tree.

Fact Two:
My oak flowers feed butterflies, moths, squirrels and bees.

Fact Three:
Jays are birds that bury my acorns helping new oak trees grow.

Fact Four:
I support 38 different species of bird – that's a lot!

Fact Five:
My roots are shallow but go really wide – most are only 30cm below me.

Fact Six:
Oak trees like me need protecting. **Can you help?**

ACTIVITY 3
STEPPING INTO A BETTER FUTURE

Time: 30 minutes **Age: 7-11**

Curriculum links: England: English, Science, Scotland: Literacy and English, Sciences, Wales: English, Science and technology, Northern Ireland: Language and literacy, Science and technology.

The UK's ancient woodlands are threatened by development, overgrazing, air pollution and the spread of invasive species such as rhododendron. Around half of the UK's remaining ancient woodlands are affected by felling and replanting with non-natural conifers.

These problems can feel overwhelming, and we need to be imaginative, innovative and clever about how we address these issues to ensure that the future of our woodlands is guaranteed.

This activity helps pupils imagine a better future for woodlands.

You will need

- Large space such as school hall or gym.
- Scrap paper to make 'stepping stones'.
- Pens.
- White board.

Instructions

1. Put pupils into groups, and either give them one of the problem statements below, or ask them to come up with their own referring to threats facing our woodlands or the species within them.
2. In a suitable large space, set up two opposite areas – one side is labelled 'Now' and opposite is 'The Future' (about 5 metres apart to allow for the creation of about five stepping stones).
3. Ask pupils to stand at the 'Now' point in their groups. They will need to think of a solution to get from 'Now' to 'The Future' – a future where UK woodlands are thriving, growing and no longer under threat. They write their idea (and its development) onto pieces of paper which they can then step on to take woodlands from 'Now' to 'The Future'. The stepping stone headings are:

   Step One – The solution

   Step Two – How does it work?

   Step Three – How would it help?

   Step Four – Benefits for wildlife?

   Step Five – Benefits for people?

4. Explain to the pupils that the more detail and information they put on their stepping stones, the stronger their pathway is to the future.

Example problem statements:

Only 44% of the UK's woodland is managed sustainably.

The UK has lost up to 70% of its ancient woodlands.

The UK's ancient woodlands are threatened by development.

The UK's ancient woodlands are threatened by overgrazing.

ACTIVITY 4
ONCE UPON A TIME

Time: 30 minutes **Age: 7-11**

Curriculum links: England: English, Science, Scotland: Literacy and English, Sciences, Wales: English, Science and technology, Northern Ireland: Language and literacy, Science and technology.

UK woodlands are full of exciting wildlife like wild boar, robins, red squirrels, and deer. This activity asks pupils to imagine what it is like to live in a woodland. What are the challenges? What are the sights and sounds? Pupils get creative and work together to create a story straight from the heart of one of our most exciting habitats.

You will need

- Creative writing books.
- Pens.

Instructions

1. Ask pupils to write down as many woodland creatures as they can in one minute - write the following words on the board to nudge their thoughts (carnivore, herbivore, omnivore, mammal, amphibian, reptile, birds, insects, nocturnal, diurnal). Spend time checking their understanding of these words before beginning the timed challenge.
2. Pupils begin by choosing a woodland animal and writing it at the top of their page. The story will be written from this animal's perspective, so as the books get passed around, the pupils will need to think from a different animal's perspective.
3. Read out each section and give pupils 5 minutes to write their narrative. At the end of each section of the story, pupils pass their books to the right so that their story is continued by someone else. The result will be collaborative pieces written by more than one person, so that pupils can appreciate and gain from the knowledge, perspective and imaginations of other's in their class.
4. When the stories are finished, read some of them out to the class.

Section One: You start to wake up. Where are you sleeping? Describe your home. What time of day is it?

Section Two: You are getting hungry, and you head into the woods to find some food. What are you looking for and how do you find/catch it? What are the challenges in finding your food?

Section Three: While you're out looking for food, you hear the sound of people walking through the woods. You hide and watch them for a while. What do you think of them?

Section Four: There are other animals that you interact with in the woodland (this could be for food or for safety). Write about one of these animals and how you benefit each other. For example, birds sometimes use the fur of other animals when building their nests.

Section Five: It's time to sleep. Reflect on your day. What do you wish was different in your woodland habitats? Is it easy to survive in the woodlands?

ACTIVITY 5
LOCAL LAND USE

Time: 30 minutes **Age: 7-11**

Curriculum links: England: Science, Geography, Maths, Scotland: Sciences, Social studies, Numeracy and mathematics, Wales: Science and technology, Humanities, Mathematic and numeracy, Northern Ireland: Geography, Science and technology, Mathematic and numeracy.

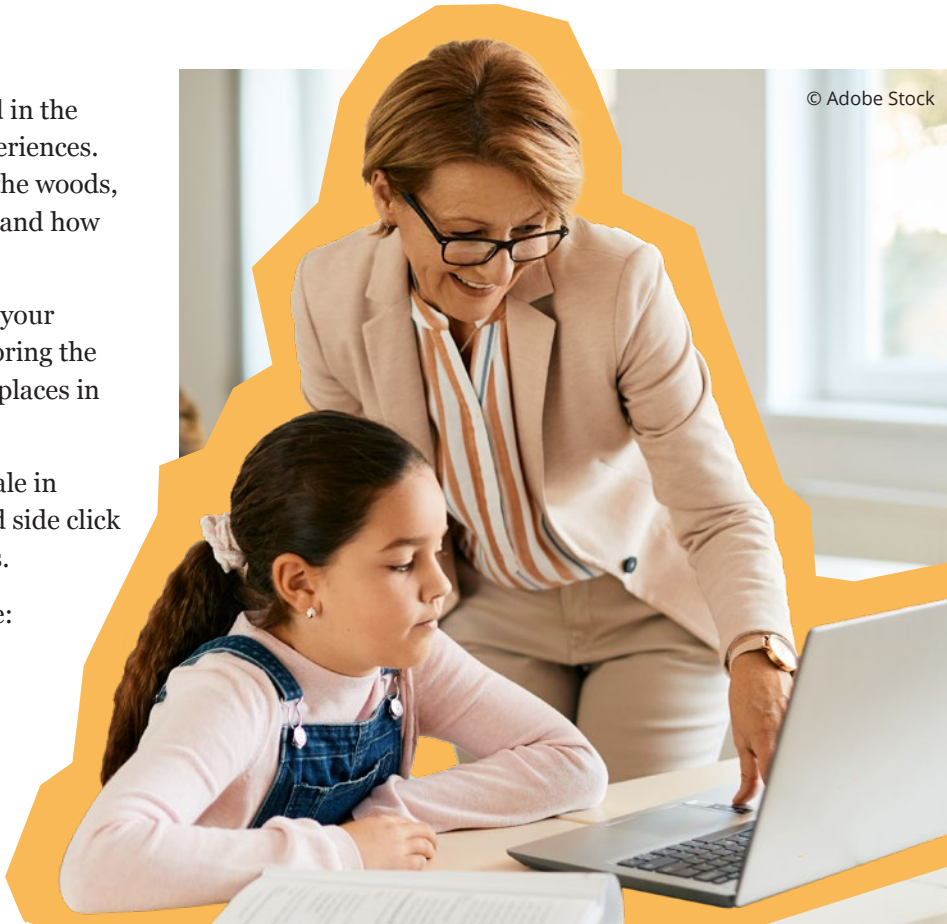
Connecting with a woodland in your local area is a great way to start caring and valuing these precious habitats. In this activity, pupils are invited to look at how the land is used around your school neighbourhood. The UK was once covered in woodland and trees. Over time the trees have been cleared to make space for people - for our homes, our schools, to grow our food and to build our roads.

You will need

- Access to the internet.
- Graph paper.

Instructions

1. Ask the class if they have visited a woodland in the local area - ask the pupils to share their experiences. They could discuss the activities they do in the woods, the wildlife and plants they have seen there and how the same wood changes with each season.
2. Open Google Earth and type in the name of your school into the search bar. Spend time exploring the area and identifying landmarks and known places in the area.
3. Set the scale to 500m by zooming in (see scale in bottom right-hand corner). On the left-hand side click on the 'map style' icon and turn on gridlines.
4. Count the squares in your local area that are:
   a. more than 50% full of trees/woodland.
   b. more than 50% full of buildings.
   c. more than 50% full of farmland.
5. Create a bar chart to compare the land use types.
6. Consider:
   a. How much woodland is there in your local area?
   b. What are the threats to woodland in your local area?
   c. Are woodland areas isolated or joined up – what are the impacts on wildlife?
7. Pupils could then compare this to a different area – i.e. somewhere more built up or somewhere more rural, and see how the land use is different.



ACTIVITY 6 NATURE-FRIENDLY CAREERS

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We can all try to help nature in our daily life.

However, some people can help solve some of the big issues facing nature because they have a job that can make a big difference.

1. Whole class discussion

(10 mins)

- What problems have we learned about that affect woodlands? (Gather suggestions).
- Pick out a few of the suggestions and ask for ideas of what jobs might be able to help solve the problem by taking action or doing something differently. E.g. Woodlands cut down for roads: Planners, politicians, campaigners.

2. Think, Pair and Share activity

(5 mins)

- Choose one of the jobs from the list and discuss how you would try to do good for nature if that was your job.

3. Whole class discussion

(10 mins)

- Go round and hear from each pair, building up a list of the jobs that could influence the health of woodlands.
- How might people in these jobs make choices that could help nature?
- Choose one or more jobs that don't have an obvious link to woodlands (e.g. artist, builder, teacher, politician, shop manager, banker) and see if the class can think of ways they could help. E.g nature-friendly products and materials, building awareness of the importance of nature etc.

USEFUL LINKS AND RESOURCES

LearnToLoveNature garden/outdoor safari
www.wwf.org.uk/learn/love-nature/garden-safari

Discover your local nature
www.wwf.org.uk/discover-nature-seek-app

Nature survey teacher guide
www.wwf.org.uk/sites/default/files/2022-10/OPLAB_BiodiversitySurveying_EducatorGuide.pdf

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Schools' Wild Challenge Habitat Heaps (log pile as a micro habitat of woodland deadwood)
Build Wildlife Habitat Heaps for School | Wild Challenge - The RSPB

Spot it! Tracks and signs
www.rspb.org.uk/globalassets/downloads/documents/kids-and-schools/spot-it-tracks-and-signs.pdf

How to plant a tree
plant-a-tree.pdf (rspb.org.uk)

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Working together to protect and restore UK nature.