Start with Scotland, not somewhere else!

WHAT ARE NATURE NETWORKS?

A **Nature Network** connects nature-rich places so that wildlife can move, disperse and adapt across the landscape. It brings together important habitats and nature-rich sites through **habitat corridors, connected areas and stepping-stones of suitable habitat**.
Nature Networks can operate at different scales – from a local neighbourhood or school catchment to a whole local authority area and, collectively, across Scotland.

The main purpose is **ecological connectivity**: helping plants and animals move between habitats, maintain healthy populations and genetic diversity, and adapt to pressures such as climate change. But Nature Networks are also about people. Connected, nature-rich places can provide opportunities for recreation, learning and community activity, while helping to deliver benefits such as cleaner air and water, flood mitigation, pollination, carbon storage, health and wellbeing.

Scotland's vision is that, by 2030, Nature Networks will connect nature-rich areas across the country, from urban neighbourhoods and towns to rural landscapes, mountains, lochs and coasts. (NatureScot)

WHY DO WE NEED THEM?

Scotland is experiencing a **nature and climate emergency**. Biodiversity loss, habitat fragmentation and climate change put pressure on the plants, animals and ecosystems on which people depend.
Nature Networks are one way of responding to these challenges by making habitats more connected and resilient.
For example:

- A woodland surrounded by roads, development or intensively managed land can become isolated from other woodland.
- A wildflower-rich grassland can provide food for pollinating insects, but its value is increased when it is connected to other suitable habitats.
- Rivers, burns, wetlands, hedgerows, tree lines and other habitats can provide routes through which species can move.
- In towns and cities, parks, gardens, street trees, ponds, verges, green roofs and small habitat patches can act as **stepping-stones**.
- Connected habitats can give species more opportunities to move as the climate changes and conditions in particular places become less suitable.

Nature Networks therefore form part of a wider approach to **halting biodiversity loss, restoring nature and helping ecosystems adapt to climate change**. (NatureScot)

LOCAL EXAMPLES

Nature Networks provide an opportunity to make biodiversity learning **immediately relevant**.
Instead of beginning with an example such as tigers in a distant rainforest, pupils can investigate:

- red squirrels in their local area;
- swifts and house martins around their school;
- pollinators visiting a school garden;
- frogs, newts and pond life;
- otters and riparian habitats;
- woodland and woodland-edge species;
- coastal habitats and seabirds;
- peatlands, bogs and wetlands;
- urban birds and insects;
- native wildflowers and grasses.

This can make biodiversity more tangible. Pupils can ask:

What lives here? Where does it live? What does it need? Where can it move? What might stop it moving? What could we change?

That takes pupils from learning *about* biodiversity to understanding their own place within it.

Nature Networks are not just about wildlife in remote parts of Scotland. They are about the nature on our doorstep – including the nature in and around our schools.
Every school can help pupils understand their local place, explore the biodiversity around them and take practical action.
A school ground, garden, park, hedgerow, burn, pond or tree-lined street can all play a part.
Small places can make a big difference when they are connected.

THE GLOBAL BIODIVERSITY FRAMEWORK

Nature Networks contribute to the international **Kunming–Montreal Global Biodiversity Framework (GBF)**, agreed by countries in 2022.

In particular, Nature Networks relate strongly to the GBF's ambitions to:

- ensure that land and sea use is planned in a way that addresses biodiversity and maintains ecological connectivity (**Target 1**);
- restore at least 30% of degraded terrestrial, inland water, coastal and marine ecosystems by 2030 (**Target 2**);
- effectively conserve and manage at least 30% of the world's land, inland waters and seas by 2030 (**Target 3**); and
- improve the quantity, quality, connectivity and accessibility of green and blue spaces in urban and densely populated areas (**Target 12**).

The important message for pupils is that **local action can contribute to global biodiversity goals**.

SCOTLAND'S BIODIVERSITY STRATEGY

Scotland's **Biodiversity Strategy to 2045** sets the ambition for Scotland to be **Nature Positive by 2030**, with nature restored and regenerated across the country by 2045.
The first Scottish Biodiversity Delivery Plan, covering **2024–2030**, includes a specific action to ensure that spatially defined Nature Networks are implemented in **every local authority area**. These networks are intended to connect important places for biodiversity and contribute to priorities at local, regional and national scales. (Scottish Government)
Nature Networks are therefore not an isolated conservation project. They are part of Scotland's strategic response to the nature and climate emergencies.

Place And Nature Networks: where does my school fit in?

A Nature Network provides a powerful way to explore **place**.

Ask pupils:

- What is special about our local area?
- Which natural places do we value?
- Where are the best places for wildlife?
- Where are the gaps?
- Can wildlife move between these places?
- What gets in the way?
- Which places could become stepping-stones?
- What would we like our area to look like in 10 or 20 years?

This works in both **urban and rural schools**.
An urban school might investigate how a small garden, street trees, a park, railway embankment or green verge could provide habitat between larger green spaces.
A rural school might investigate hedgerows, burns, woodland, lochs, wetlands, field margins or peatland and how these connect with larger habitats.
There is no requirement for a school to be beside a large nature reserve to contribute to a Nature Network.

School grounds can be part of the network
A school ground can be much more than an enclosed piece of land.
It can become a **stepping-stone for nature** within the wider community.
For example, a school could:

- create or restore a wildflower area;
- plant native trees or shrubs;
- improve hedgerows;
- create or improve a pond;
- introduce native planting for pollinators;
- leave areas of grass unmown;
- create habitat piles or deadwood habitats;
- improve soil and composting;
- add bird or bat boxes where appropriate;
- create rain gardens or other sustainable drainage features;
- reduce barriers to wildlife movement;
- connect different habitats within the school grounds.

The value of an individual project can increase when it forms part of a **bigger connected picture**. A small area of habitat may be a stepping-stone between two larger habitats. A school can therefore make a meaningful contribution even where space is limited.

Place names can tell a story
Local place names can provide clues about the landscapes and habitats that were once present.
Scottish Gaelic and Scots place names may contain references to:
woods and trees; wetlands; rivers and burns; hills and moorland; animals and birds; plants

Exploring these names can lead to questions such as:
What was here in the past? What has changed? What remains? Could some of those habitats be restored or reconnected?
NatureScot has specifically explored how Gaelic place-name information can contribute to identifying potential nature-rich sites and opportunities for Nature Networks. (NatureScot)

Joining your school into your local Nature Network

Schools are places where **people, learning and nature come together**. They can help children and young people understand the nature around them, investigate how their local environment is changing and take practical action.

Nature Networks provide an excellent context for making learning **local, relevant and real**.
Curriculum connections.

Nature Networks can support learning across the curriculum:

- **Sciences** – biodiversity, habitats, ecosystems, food webs, adaptation, fieldwork, species identification and ecological monitoring.
- **Social Studies / Geography** – land use, settlement, place, mapping, human impacts, climate change and environmental decision-making.
- **Technologies** – mapping, digital data, design and planning solutions for local environmental challenges.
- **Numeracy and Mathematics** – collecting, presenting and interpreting biodiversity and environmental data.
- **Literacy** – research, reporting, persuasive writing, environmental journalism and communicating with communities.
- **Health and Wellbeing** – outdoor activity, connection with nature, confidence, relationships and mental wellbeing.
- **Expressive Arts** – observation, photography, drawing, soundscapes, creative writing and interpretation of place.
- **Languages / Gaelic** – exploring local names, landscape vocabulary and the relationship between language, culture and place.
- **Learning for Sustainability (LfS)** – connecting environmental understanding, global citizenship, sustainable development and outdoor learning.
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Outdoor learning is an established part of Scotland's educational approach, and Education Scotland describes the outdoors as a setting that can bring the whole curriculum to life. LfS is also embedded within Scotland's education framework and the GTCS Professional Standards. (Education Scotland)

OUTDOOR LEARNING AND FIELD SKILLS.

Nature Networks offer authentic opportunities to develop practical fieldwork skills, including:

- species identification;
- habitat surveys;
- quadrat and transect work;
- mapping and GIS;
- photography and digital recording;
- soil and water investigations;
- measuring and monitoring change;
- citizen science;
- analysing environmental data;
- designing and evaluating habitat improvements.

These activities can be adapted for different ages and abilities, from simple observation and recording in the early years through to detailed ecological surveys and independent research at secondary level.

NatureScot's work with 115 schools found that learning in local greenspace increased teachers' use and confidence in outdoor learning, pupil engagement and pupils' connection with nature. (NatureScot)

HEALTH, WELLBEING AND CONNECTION WITH NATURE

Nature Networks are also about creating places where people can **experience and connect with nature**. Using school grounds and nearby greenspaces can provide opportunities for movement, exploration, play, observation and quiet reflection. Outdoor learning has recognised links with health and wellbeing, engagement and connection with nature. (NatureScot)
For schools, this means that improving biodiversity does not have to be seen as an additional task. The same place can become:
a classroom + a habitat + a community space + a place for wellbeing.

Connecting people to nature
Nature Networks are also networks for people.
Schools can help pupils see that they are not simply observers of Scotland's natural environment – **they are part of it and can help shape its future**.

Projects can involve:
- families;
- local residents;
- community groups;
- local authorities;
- land managers;
- parks and greenspace teams;
- environmental organisations;
- local businesses;
- other schools.

This can help pupils understand how environmental decisions are made and how communities can work together to improve their local area.
It also provides an opportunity to explore **active travel**: how walking, wheeling and cycling routes connect people with greenspaces and how routes can be designed or improved to benefit both people and nature.

How can our school help?
The first step is to **look at your school and local area differently**.
You do not need to start with a large project. Start by asking what is already there and where there might be opportunities to improve connectivity.

1. Look
Explore your school grounds and the area around your school.
Map:
- trees and woodland;
- hedges;
- long grass and wildflower areas;
- ponds and wetlands;
- gardens and planted areas;
- walls, fences and other potential barriers;
- nearby parks and greenspaces;
- burns, rivers and drainage features;
- footpaths and active travel routes;
- other habitats or features of interest.

2. Discover
Find out what wildlife is already using the area.
Pupils could:
- carry out species surveys;
- photograph plants and animals;
- investigate signs of wildlife;
- record seasonal changes;

- map habitats;
- compare different areas of the school grounds;
- investigate what is missing.

3. Plan
Use the evidence pupils have collected to ask:
Where could we make a difference?
Think about both the school grounds and the wider neighbourhood.
Could one habitat be connected to another?
Could a small area become a stepping-stone?
Could an existing habitat be improved rather than creating something new?
Could the school work with a neighbouring school or community group?

4. Act
Turn learning into practical action.
Choose projects that are achievable, appropriate to the site and beneficial for biodiversity.
Importantly, **not every part of a school ground needs to be managed for wildlife**. A good school ground can provide a mixture of spaces for learning, sport, play, socialising and nature.

5. Look again
Monitor what happens.
Pupils can repeat surveys, compare photographs, analyse data and record changes over time.
This creates an ongoing cycle:
LOOK → DISCOVER → PLAN → ACT → LOOK AGAIN

Nature Discovery Map Scotland
The **Nature Discovery Map Scotland (NDMS)** is particularly useful for this approach.
Developed by NatureScot on behalf of the Scottish Government, and with Scottish teachers and pupils, the NDMS is a suite of six map-based tools supporting Learning for Sustainability.

It allows pupils and schools to:
- look at their school grounds;
- discover and record biodiversity and sustainability features;
- plan improvements;
- take action;
- look again and track change.

It can also complement existing initiatives such as **Eco-Schools** and Climate Ready School Grounds, while supporting outdoor learning, digital skills, STEM and LfS. (NatureScot)

Existing school initiatives can be a starting point
Nature Network activity does not have to be a completely new school programme.
Consider how existing work could contribute, including:
- Eco-Schools;
- Learning for Sustainability;
- John Muir Award;
- school gardening;
- outdoor learning;
- citizen science;
- climate action projects;
- biodiversity surveys;
- community growing;
- tree planting;
- pond and wetland projects;

The key question is:
Can we connect what we are already doing to the wider Nature Network in our community?

A SIMPLE CHALLENGE FOR PUPILS

Can you find your school's place in Scotland's Nature Network?

1. **Find** – What nature is already in and around our school?
2. **Map** – Where are the habitats and greenspaces?
3. **Connect** – How are they connected? Where are the gaps?
4. **Imagine** – What could make the network stronger?
5. **Act** – What could our school do?
6. **Share** – Who else could we work with?
7. **Monitor** – What difference did we make?

The aim is not simply to create a "wildlife-friendly school".
It is to help pupils understand that **their school is a place within a much bigger ecological and human network – and that their actions can contribute to nature recovery in Scotland.**

Where to find out more

NatureScot – Nature Networks
The Nature Networks Framework provides the national vision, principles and background for Nature Networks in Scotland.
Nature Networks Framework – NatureScot

The Nature Networks Toolbox
Provides a central point for guidance and resources.
www.naturenetworks.scot

Nature Discovery Map Scotland
A practical toolkit for schools to explore, map, plan and improve their school grounds for nature and climate.
Nature Discovery Map Scotland – NatureScot

Learning in Local Greenspace
Resources and case studies to help schools use nearby greenspaces for learning.
Learning in Local Greenspace – NatureScot

Outdoor learning
Education Scotland's guidance and resources for Learning for Sustainability and outdoor learning.
Outdoor learning – Education Scotland

Scotland's Biodiversity Strategy
Scottish Biodiversity Strategy – Scottish Government

Questions about Nature Networks?
Email: **naturenetworks@nature.scot**

Nature Networks – Visualising the Future
A short video explaining what Nature Networks are, and why they are important.
https://youtu.be/BtLoEY9Pqig?si=ez-VPSOxyLGadZZV

Nature Networks: Meet the People Connecting Communities and Habitats Across Scotland (podcast)
A recent NatureScot film featuring examples from **Edinburgh and North Ayrshire**, showing how parks, planters and small habitat patches can form part of connected Nature Networks. It is particularly useful for teachers because it demonstrates that Nature Networks are relevant in urban areas as well as rural landscapes. (NatureScot)
Watch/read the Nature Networks film – NatureScot

Gaelic
For Gaelic-language nature resources and films, NatureScot's YouTube channel includes a range of Gaelic-subtitled nature and biodiversity films. (NatureScot)
NatureScot YouTube channel