



Climate education, equity and taking action for nature with the National Education Nature Park

Dr Laura Soul

Drivers and background

Call from young people

Globally and in the UK young people with a platform and those who have responded to surveys through government, and major NGOs consistently call for more climate education in their learning

The UK is one of the most nature-depleted countries on Earth

The 2016 State of Nature Report showed that since the 1970s, 41% of all UK species surveyed had declined. The [latest 2023 update](#) to the report shows continuing decline, with 16% of species threatened with extinction.

Importance of education

The Professor [Dasgupta Economics of Biodiversity Review](#) argues we have failed to engage with nature sustainably, and calls for an urgent transformation of our systems, particularly education.

Drivers and background

STEM and green skills shortages

There is currently a shortfall of 173,000 skilled STEM workers in the UK. The need for new STEM roles is expected to double in the next 10 years, particularly within the green economy.

Nature connectedness benefits both people and nature

Promotes pro-nature conservation actions, pro-environmental behaviours and greater mental wellbeing. Access to green space has positive impacts on the physical, mental and emotional wellbeing of young people, however access to green space is inequitable.

Environmental justice ↔ Climate justice ↔ Social justice

Issues relating to inequity of causes and impacts of climate change are integral to social justice on a global scale, but environmental justice is equally important on a national, regional and local level with social justice tightly linked to factors like agency in climate adaptation and resilience decision making, access to green space, local environmental impacts and public health.

DfE Sustainability and Climate Change Strategy



Strategic Aims



Action Areas

1. climate education
2. skills
3. estate and digital
4. supply chains and operations
5. international

Complementary projects

- Climate Action Plans (regional hubs, climate ambassadors & climate advisers)
- Sustainability Support for Education digital hub

Overarching goal

To empower every young person in England to take action to make a positive difference to both their own and to nature's future by:

- Developing connection to nature
- Understanding the threats it is facing
- Feeling able to do something about it

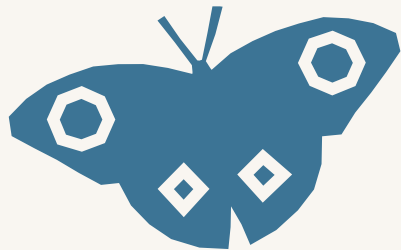


Nature Park aims

1. Biodiversity gain across the educational estate



2. Putting nature at the heart of education



3. Developing green and digital skills



4. Pro-environmental behaviours and improved wellbeing of young people



5. Involving all children and young people





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Partners



Learning resources

- A growing library of free, high-quality resources across subjects and key stages
- English National Curriculum aligned
- Accurate and impartial – climate content quality-assured by the Royal Meteorological Society
- Climate pedagogy best practice
- Accessible and up-to-date
- Worked with a range of trusted organisations
- Some resources can be used directly to develop a school's Nature Park
- EYFS to KS5



Science

A grid of three science resource cards. The first card is from The Royal Society, titled 'What do you want to know about climate change?' and is suitable for KS3 and KS4, with a duration of 1 hour. The second card is a 'Greenhouse effect simulation' from ypte, suitable for KS2-4, with a duration of 1 hour. The third card is 'Seasonal change' from ypte, suitable for KS1, with a duration of 1 hour. A 'Show all from this topic' button is located below the grid.

Geography

A grid of three geography resource cards. The first card is 'Changing weather and climate' from the Met Office, suitable for KS4, with a duration of 1 hour. The second card is 'Interpreting climate models' from the Met Office, suitable for KS3 and KS4, with a duration of 1 hour. The third card is 'Modelling Future Climate in the UK' from esri UK, suitable for KS3 and KS4, with a duration of 1 hour. A 'Show all from this topic' button is located below the grid.

English

A grid of three English resource cards. The first card is 'Poetry and Nature' from National Education Nature Park and Climate Action Awards, suitable for KS1 and KS2-4, with a duration of 1 hour. The second card is 'Living books' from National Education Nature Park and Climate Action Awards, suitable for EYFS, KS1, and KS2, with a duration of less than 30 minutes. The third card is 'The Power of Books' from National Education Nature Park and Climate Action Awards, suitable for KS1, with a duration of less than 30 minutes.

Key pedagogies within climate education
 Inter/intragenerational and traditional knowledge and values
 Outdoors integral for learning and being
 Climate justice
 Supporting learner voice and learner-led inquiry
 Systems thinking

Prioritising wellbeing, mental health and a sense of belonging (constructive hope)

(To be)

Enhancing social and emotional learning

Climate change scientific processes

Biodiversity and its importance

Impacts of climate change

(To know)

Being able to draw on subject-specific substantive and disciplinary knowledge

National Education Nature Park Curriculum Framework

Making sure every young person in England has opportunities to develop a meaningful connection to nature, understand the concepts of climate change and biodiversity loss and feels able to do something about it.

(To do)

Developing the motivation and agency to make positive change

Solutions

Nature-based solutions
 Mitigation and adaptation

Systems and policy

Relationship between scientific/community research, evidence and policies
 National/International Policies

Green careers

An understanding of how green skills can be used in any career
 Developing a broad understanding of 'what counts' through developing 'green capital'

Developing confidence in green skills through curriculum learning

Identification and ecology
 Recording data
 Analysing data
 Communication
 Creative thinking
 Horticulture and environmental stewardship

Nature Park Units of Learning

Prior Knowledge



Explore



Enquire



Making Change



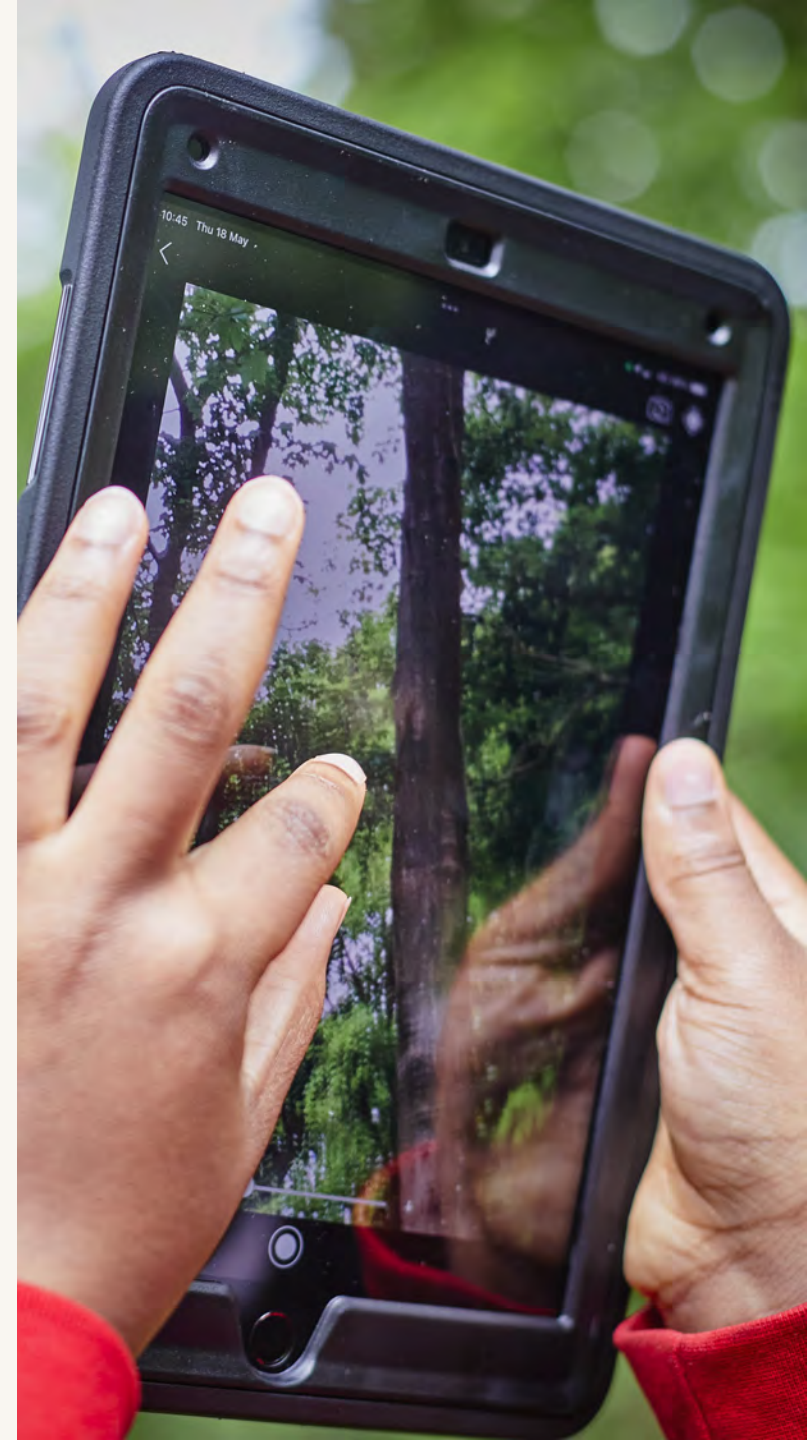
Communication

- KS1 Weather and Seasons
- KS1 Plants
- KS2 Habitats
- KS2 Greenhouse Gases
- KS3 Climate Change
- KS4 Earth and atmospheric science
- KS4 Ecosystems



Nature Park

- Young people take the lead and are part of a real science project of global importance
- Network of spaces
 - Types of habitat identified and mapped
 - Biodiversity recorded on a nationwide database
- Environmental, educational and health benefits
- Collective difference being made for nature visualised on an online map
- Worked with 39 pilot education settings to test and develop the scheme, 3025 young people and 116 teachers



Five step cycle



Collect data on current status of habitats, biodiversity, climate, land use and young people's relationship to their site

Young people **develop a vision** of what they want to change to solve most important issues based on their data

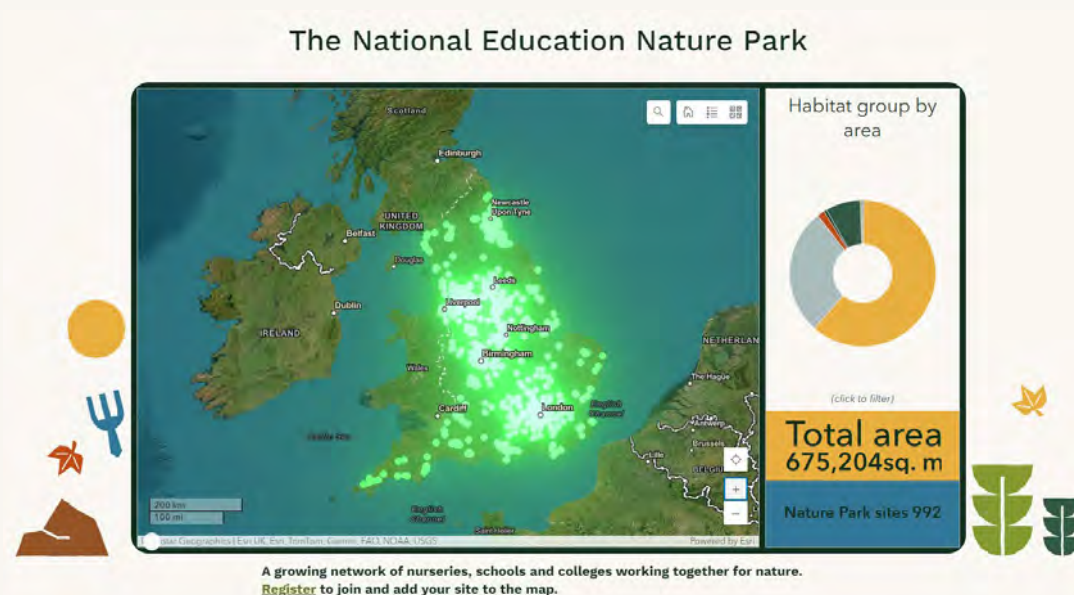
Make a plan to make change happen and get everyone on board

Take action to implement the changes for people and nature

See the **real impact** of action through collecting data over time

The Nature Park launched on 4 October 2023

- Celebrated the launch with the [Hidden Nature Challenge](#) – over 2,000 discoveries by young people
- Over 2,200 schools, nurseries and colleges from all regions of England registered since Oct
- 9% of secondaries and primaries
- Over 1,000 have marked their site boundaries on our live map and starting to mark their habitat
- Responding to feedback, bringing on stream more digital tools and biodiversity surveys, and learning resources
- Programme runs until summer 2027



Step 1: Getting to know your space



National Education Nature Park and Climate Action Awards

Gallery Map Add a record About

Explore Your Hidden Nature

2,541 Hidden Nature Discoveries

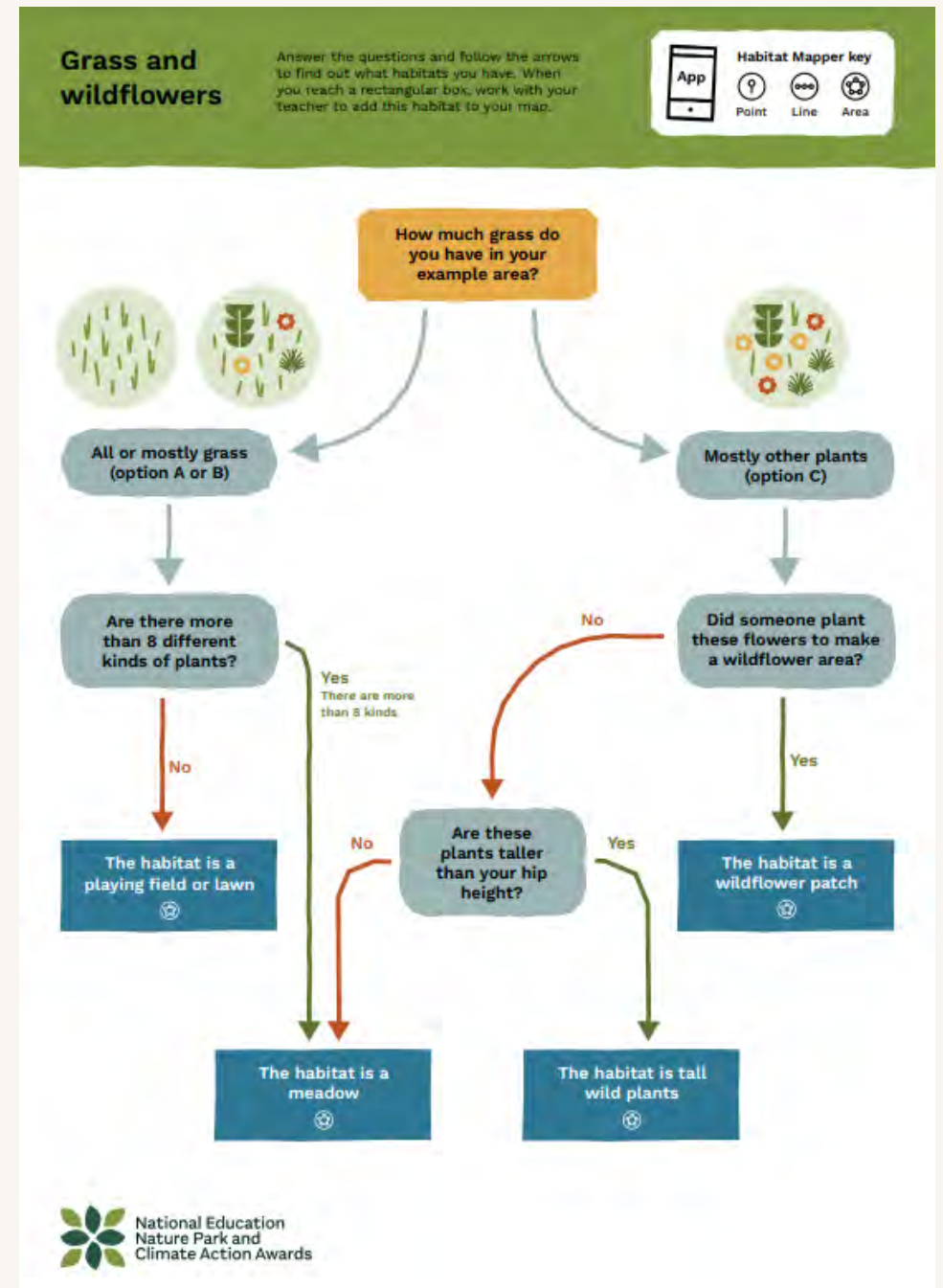
IRELAND UNITED KINGDOM NETHERLANDS BELGIUM

A repeated pattern A repeated pattern The smallest sign of nature A repeated pattern The smallest sign of nature



Loved the differences in the grasses and flowers and that there were lots of grass/ flowers, I liked working out what lives in the area, being outside and being with friends. Better if: we found other things in the quadrat

Comments from Year 7 pupils at Irlam and Cadishead Academy



Zoom in on homepage map to see settings that have started marking their habitats e.g. Manchester Co-operative Academy and Reading School



Case study 28 Feb 2024

Students lead the way in mapping habitats at Reading School

Yogi Nagam



At Reading School in Berkshire - a secondary school with 1150 students - young people have been planning, leading and carrying out habitat mapping activities as they get started with their Nature Park journey.

Step 2: Identifying opportunities



Imagine you are a BUMBLEBEE...



What can you SEE?

What can you HEAR?

How do you FEEL?



What do you LIKE about this space?

What do you DISLIKE about this space?

What would make this place even BETTER for you?



National Education
Nature Park and
Climate Action Awards

Write a poem

This activity, created in collaboration with the Poetry Society, encourages children and young people to imagine the future of their space through the process of poetry. Learners will read a poem by Dom Conlon and respond to it with their own ideas and feelings of what they'd like their site to include for future generations.

This activity will help learners to create a vision for their Nature Park through writing a poem, and imagine the impact of changes on people and nature in the future. If learners haven't had an opportunity to do so site in preparation.

Green Skills



Suitable for

Key Stage 2
Key Stage 3
Key Stage 4

Location

Indoors

Season

Spring
Summer
Autumn
Winter

What you'll need

"New Gold" by Dom Conlon
Plain or lined sheet of paper
Pencils or pens

Key vocabulary

Positive future
Impact
Viewpoints

Support and opportunities

Depending on age group, you can introduce...

Where are you? field/grass playground MUGA wooded area school garden

What is there? What does it look like?

Grass Grass Green

Imagine you are a WORM...

What can you SEE?

soil

What do you LIKE about this space?

there is nature

What can you HEAR?

people stomping



What do you DISLIKE about this space?

children stomping on us.

How do you FEEL?

nervous because the people are tall they can stomp on us.

What can you EAT?

mud, dirty things and muddy water.



Step 3: Making decisions



Start Planning for Nature



Planning your Project: A Nature Park Guide



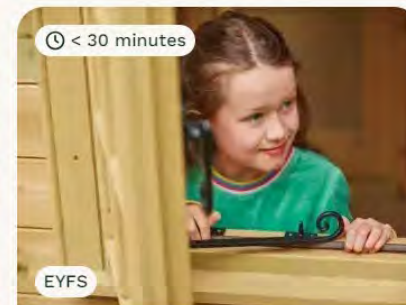
Educator Reflective Planning Tool



Ideas for improvement



Storytelling to imagine the future



Imagining our space



Design a plant

Bug Garden.

Wellbeing	●●●●●○
Nature	●●●●●●
Fun	●●●●●●
Easy	●●●●○
Appearance	●●●●●●
Smell	●●●●○
Cost (£-£££)	

A Hut with a green roof and a bughouse

wellbeing garden

Tadpole pond.

Wellbeing	●●●●●●
Nature	●●●●●●
Fun	●●●●○
Easy	●●○
Appearance	●●●●●●
Smell	●○
Cost (£-£££)	

If we add trees it will block the smell of petrol and build nests for birds.

If we have a strawberry tree we have free fruit.

Wellbeing	●●●●●●
Nature	●●●●●●
Fun	●●●○
Easy	●●○
Appearance	●●●●●●
Smell	●●●●●●
Cost (£-£££)	2.000 £2.00

Focus on built environment: 'Grey to Green'

Pools of Water



Waves of Grass



Buffets of Flowers



Shades of Trees



Cascades of Green Walls



Catch Every Raindrop



Making change



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How to use the website





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