



Sustainability and climate change:

A strategy for the education and children’s services systems

This policy paper was published on 21st April 2022 and covers up to 2030. It is available, with a short introduction and video summary, here:

<https://www.gov.uk/government/publications/sustainability-and-climate-change-strategy>

Contents

Scope and purpose	2
Foreword by the Secretary of State for Education (Nadhim Zahawi)	2
Context	2
The challenge and the opportunity	2
Vision and aims	3
Initiatives to drive the strategy	4
Action area 1: Climate education	5
Action area 2: Green skills and careers	6
Action area 3: Education estate and digital infrastructure	7
Action area 4: Operations and supply chains	10
Action area 5: International	10
Leadership, engagement and next steps	11

Scope and purpose

This strategy applies to:

- The Department for Education, its agencies and public bodies
- The education and children's services systems in England

The DfE recognises its wide-ranging role but prioritises reducing its environmental footprint, particularly in the drive to achieve net zero.

Policies focus on the environmental aspect of sustainability but with consideration for their interaction with social and economic aspects of sustainability.

Foreword by the Secretary of State for Education (Nadhim Zahawi)

The British education system met the challenges of Covid-19 with great resilience. Now it must face the even greater environmental challenge by Building Back Greener. We must level up within the context of sustainability, enabling all children, young people and adults to thrive in the green economy. Children and young people need to meet the challenge of climate change with determination, not despair. They need to know the truth and given hope that they can be agents of change.

Context

This strategy responds to recommendations for education from:

- Committee for Climate Change
- Dasgupta Review
- Green Jobs Taskforce report

It responds to multiple international agreements and national laws on the environment.

The challenge and the opportunity

Children and young people are worried about climate change and want to know more about:

- the impact it is having now
- how it will impact their future lives

DfE and the education sector have a joint responsibility for preparing children and young people for the challenges and opportunities they will face – with the appropriate knowledge, skills and pastoral care.

Education

DfE will provide opportunities for children and young people to develop a broad understanding of the importance of nature, sustainability and the causes and impact of climate change and to create positive actions and solutions.

Green skills and jobs

DfE anticipate that sustainability and climate change will touch every career. Programmes will train, retrain and upskill people of all ages for green careers.

Learning from and connecting with nature

DfE will increase opportunities for all children and young people to spend time in nature and be involved in improving their local environment. It also recognises that children do not have equal access to green space.

Buildings

The learning opportunities of work to adapt and decarbonise buildings is noted. DfE aim to lead by example in reducing energy usage (and therefore costs) and achieving legal targets for CO₂ emissions. Evidence-based solutions to these challenges will enable the sector to:

- reduce energy demand
- adapt to climate risks
- drive innovation in construction
- act as a catalyst for green jobs
- deliver savings

These will, in turn, drive additional benefits in the education community including health, biodiversity, the environment and learning and play opportunities.

International

Sharing of expertise internationally and collective efforts will drive effectiveness and innovation.

Vision and aims

The United Kingdom is the world-leading education sector in sustainability and climate change by 2030.

Strategic aims (England):

1. Excellence in education and skills for a changing world: preparing all young people for a world impacted by climate change through learning and practical experience.
2. Net zero: reducing direct and indirect emissions from education and care buildings, driving innovation to meet legislative targets and providing opportunities for children and young people to engage practically in the transition to net zero.
3. Resilience to climate change: adapting our education and care buildings and system to prepare for the effects of climate change.
4. A better environment for future generations: enhancing biodiversity, improving air quality and increasing access to, and connection with, nature in and around education and care settings.

Guiding principles

Partnership and collaboration

DfE will seek opportunities to work in partnership and share good practices. They will also facilitate partnerships to maximise use of resources, expertise and ideas to achieve better outcomes.

Evidence and insight

DfE will publish an impact framework for the strategy and work with the sectors to develop reporting and decision frameworks. There is no mandatory reporting within the strategy but this will remain under review.

From 2025, science-based targets will be set through joint-working to contribute to reductions in public sector emissions (against a 2017 baseline) of:

- 50% by the end of Carbon Budget 5 (2032)
- 75% by the end of Carbon Budget 6 (2037)

Research, tests and piloting will involve young people, experts, analysts and delivery partners and learning will inform how funding is prioritised for maximum impact.

Leadership and support

The sector has called on DfE for greater leadership in sustainability. The DfE will work across government and will share best practice and support local leaders, facilitating autonomy and fostering innovation.

A whole system approach

A systems-based approach will deliver for the whole education sector holistically (learning, buildings and surroundings, operations), which will influence and inspire people in all education settings and in their communities.

Initiatives to drive the strategy

DfE have worked with sector representatives and experts on initiatives to drive the strategic aims:

- increasing opportunities for climate education and access to nature
- driving opportunities to increase biodiversity and climate resilience
- co-ordinating and leading a whole-setting approach to climate change and sustainability

National Education Nature Park

This initiative considers the whole education estate (sites and buildings) as a virtual National Education Nature Park, the DfE hopes to improve biodiversity and drive greater climate resilience. The initiative will connect local initiatives and involve learners through digital mapping the of growing 'park' and developing skills including biodiversity mapping, data collection and analysis.

An online hub will share best practice and, in time show metrics on impact and climate resilience including flood, overheating and air quality as well as biodiversity.

The launch of the Park will be supported by a number of universities acting as champions, sharing their expertise and supporting schools and setting in developing a better environment.

Climate Leaders Award

The award will recognise education providers, children and young people for developing their connection with nature and making a real contribution to establishing a sustainable future for us all. It will link with existing awards including the John Muir Award, Duke of Edinburgh's Award, Junior Forester Award and others.

In the design and implementation of both the park and the award, the DfE will take steps to drive participation among more disadvantaged children and young people and that all are able to take practical, positive action irrespective of whether they live in an urban or rural area.

Sustainability leadership

Feedback has been that the greatest impact in delivering a whole-setting approach to sustainability and climate change has been where there is leadership at a local level with SLT and governor support and that the sector needs more support to:

- share best practice
- access funding
- develop networks

The DfE will work with the 16 organisations and universities working together under the National Climate Education Action Plan to test an approach that supports:

- climate education
- accessing public and private funding

- engaging in the National Education Nature Park and Climate Leaders Award
- reporting emissions
- developing and delivering Climate Action Plans for individual settings

Carbon literacy training will be provided for sustainability leads in every nursery, school and college by 2025. The DfE will encourage a joined-up approach to leadership which brings together children, young people and governors.

Action area 1: Climate education

The DfE will empower young people to be global citizens through better understanding of climate change and greater connection to nature. Children and young people will be given practical opportunities to translate knowledge into positive action to improve their local communities, the country and the planet.

1. Learning about the natural environment

All children, from EYFS upwards, will learn about nature, the causes and impact of climate change and the importance of sustainability. This will be achieved in a cross-curricular way, with learning opportunities in a number of subjects, including across several existing GCSEs. By 2025, the DfE are aiming to introduce a GCSE in natural history.

From 2022, an annual climate literacy survey will benchmark progress in improving the climate knowledge of school leavers.

The DfE will continue to seek opportunities to align climate education with the Education for Sustainable Development (ESD for 2023) framework.

2. Support for teaching

Support will build on the aim to provide an excellent teacher for every child in the schools white paper. Teachers are saying that they need additional support both for teaching about climate change and in navigating the many different resources.

From 2022, the DfE will:

- Include climate change and sustainability in CPD for science teachers and include sustainability in new CPD tenders
- Work with higher education to enhance best practice in teacher training and the teaching of sustainability in university courses
- Share best practice across the sector, including piloting sharing approaches through the National Education Nature Park
- Promote and share teaching resources from other government departments and agencies

By 2023 the DfE will:

- Develop a Primary Science Model Curriculum with an emphasis on nature
- Develop an occupational standard for further education teaching, explicitly requiring all new teacher to integrate sustainability into their teaching
- Set up an independent expert body to create and validate climate education resources (supporting the National Climate Education Action Plan)
- Provide free access to curriculum resources through the National Education Nature Park online hub, initially working in tandem with the Oak National Academy's work
- Provide an opportunity for all staff (teaching, leadership and support) to receive carbon literacy training through their sustainability leads.

3. Learning in the natural environment

Pupils may take part in a wealth of learning opportunities which bring their learning to life, such as eco-clubs, growing vegetables, recycling, weather and energy monitoring. These can also aid pastoral work, with physical and mental health benefits which can positively impact engagement and attainment, including for pupils with SEND, and give pupils a sense of agency over climate concerns.

The National Education Nature Park and Climate Leaders Award will ensure that all children and young people have opportunities to participate in practical activities and positive action. The educational opportunities of renovation and new-build projects within the education estate are noted.

In 2022 the DfE will:

- Explore opportunities for more outdoor activity as part of the HAF programme
- Ensure that HAF projects include knowledge of affordable, healthy and sustainable eating
- Engage with DEFRA on further research into how outdoor learning can have the greatest impact
- Identify new opportunities across government as part of the levelling up agenda (e.g. DLUHC on climate education and DCMS on the National Youth Guarantee)
- Provide co-curricular opportunities through the National Education Nature Park
- Encourage schools to join up with local partners and build links with local communities
- Provide educational activities related to building and maintenance projects, e.g. boiler replacements, smart meter installation, energy monitoring pilots, sustainable drainage systems

Political impartiality

Teaching about climate change and the scientific facts and evidence for it do not constitute teaching about a political issue. However there is relevant political and scientific debate about approaches. Debates on political and policy change should be handled in line with schools' legal duties on political impartiality.

Action area 2: Green skills and careers

The DfE will ensure that young people have the passion, interest, knowledge and skills for green jobs and will seek to inspire them to choose careers that support climate goals. It will also continue to support adults to retrain for the needs of the green economy.

1. Net Zero Strategy

The government's Net Zero Strategy and the Skills and Post-16 Education Bill will support more people into green jobs and ensure that Local Skills Improvement Plans consider skills needed for various environmental goals.

A Green Jobs Delivery Group is building on the work of the Green Jobs Taskforce by bringing together industry representatives, the skills sector and other stakeholders to develop data-driven actions to ensure that young people and workers can develop the skills needed for low-carbon transition.

The DfE have undertaken a number of actions since the Net Zero Strategy was published including setting out £3.8bn of investment in further education; committing to expanding Skills Bootcamps for adults; widening eligibility for Free Courses for Jobs; piloting new General FE College Accountability Agreements; establishing eight Local Skills Improvement Plans with employers, training providers and local stakeholders; starting delivery of Strategic Development Fund pilots to match skills needs with provision and build capacity.

2. Additional support for green jobs and skills

The DfE will also support FE and HE and will seek to improve diversity among those taking up STEM subjects at all levels.

- By September 2023, there will be a T Level in agriculture, land management and production
- The DfE will engage various stakeholders to develop opportunities for further links between course content and the skills needed for green careers
- The next phase of Skills Bootcamps will further prioritise green sectors
- The Institute for Apprenticeships and Technical Education has convened a Green Apprenticeships Advisory Panel
- Up to £75m is being invested in a National Scholarship Scheme to support high-achieving disadvantaged students in HE
- Institutes of Technology are offering training in green skills and supporting participation from under-represented groups and a further £120m is being invested in the second wave of IoTs, to be set up by 2022
- By 2025, the DfE will trial short courses at levels 4-6 to support adults in work to upskill or retrain
- Co-hosting an International Green Skills Conference with FE/HE by 2023
- The Climate Leaders Award will be linked to skills that employers require and the DfE will investigate how the award can act as a progression route to further study
- By 2030, “significant numbers” will have graduated from the Climate Leaders Award
- By 2030, as a result of the National Education Nature Park, more young people will be becoming data scientists, ecologists and biologists
- As one of the country’s largest construction buyers, the DfE’s spec for new buildings will drive the market and assist in upskilling the construction workforce

3. Support and guidance for green careers

The DfE are actively supporting young people and adults to understand the opportunities available and will support existing organisations to promote green careers:

- National roll-out of Career Hubs, Career Leader training and the Enterprise Adviser Network will support best practice in schools’ and colleges’ delivery of careers advice
- The provision of relevant and accessible information on green careers through improvements to the National Careers Service
- Careers guidance and learning resources will be available linked to educational building maintenance and procurement projects.

Action area 3: Education estate and digital infrastructure

A green, sustainable education estate will impact widely on young people, their families and communities and an improved physical environment will positively impact children’s physical and mental wellbeing. The focus until 2025 will be on piloting and gathering evidence and from 2025 change will be accelerated, an approach which is summarised as innovate, test and invest.

1. New builds and new blocks

All new school buildings delivered by DfE will be net zero in operation and future-proofed to the risks of climate change. New secure children homes will also be built to the net zero standard. Publication of the DfE’s standards in 2021 means that all new schools and colleges can meet the same standards. The basic need grant-funding rates have been uplifted to help LAs deliver capital projects to these standards.

Bids to the FE Capital Transformation Programme are now assessed against the net zero operational standard. DfE will look to the HE sector to inspire and drive greater ambition in this area.

The DfE will monitor education buildings' use and energy consumption and continually improve technical standards and building specifications to ensure they remain world-leading. This will include designing in maximum access to outdoor learning for its contribution to wellbeing.

Sustainable ICT will be integrated into new-build schools.

The DfE's Gen Zero programme and other pilots will be accelerated.

2. Existing estate

Improved analysis of energy use, water, heat and biodiversity will inform decisions on investing for greatest impact and offer learning opportunities in data analysis and human behaviour. The DfE will:

- Continue work with BEIS to install smart meters in schools and encourage uptake in other settings
- In 2022, explore sharing of smart meter data to avoid additional reporting and enable DfE to advise on cost saving and energy efficiency
- Work with BEIS and Energy Sparks during 2022 and 2023 to trial Energy Management Systems in schools
- By 2025, support education settings to create Climate Action Plans

The DfE will pilot new building technologies strategically to catalyse change in the construction sector and provide evidence for the efficient decarbonisation of the education estate. They will continue to seek opportunities for research into innovative delivery and use of digital infrastructure, including retrofitting ICT to deliver energy savings. They will also share and exploit existing research and innovations.

In 2022, the DfE will work with BEIS to support education settings in decarbonising their estate; this work includes better aligning funding application processes and windows.

By 2023, all capital bids will be required to address environmental impact and align with government targets and objectives. DfE will share best practice and advice to inform settings where best to invest and will update the Good Estate Management for Schools guidance.

3. Resilience, adaptation, access to Nature and environment conditions

The three highest priority risk areas for the UK are increased heat risk, flood risk and water scarcity. To address these, the DfE has a duty to demonstrate:

- a clear set of objectives for adaptation
- policies
- programmes
- investments with clear timelines
- measurable metrics
- progress indicators

DfE will establish a formal Memorandum of Understanding with the Environment Agency to ensure that its response to risk aligns with the National Flood and Coastal Erosion Risk Management Strategy.

Through the National Education Nature Park, DfE will advise education settings on biodiversity initially and, in time, flood resilience and air quality. They will accelerate pilots on the resilience of existing buildings, improving access to nature and improving environmental conditions of buildings (overheating and air quality). Universities will be empowered to demonstrate models for resilient, biodiverse campuses and best practices will be shared via the National Education Nature Park online hub.

By 2023, DfE will:

- Explore with partners how funding can support settings in driving innovation to link separate parts of the National Education Nature Park.
- Continue evaluating the UK's first 'Biophilic' primary school
- Pilot use of smart air and environmental quality monitors in schools
- Support DEFRA's clean air strategy
- Provide guidance on reducing indoor and outdoor air pollution
- Support the DoT in initiatives to increase active and safe travel to school
- Support an EA pilot looking at offsetting carbon emissions from flood scheme construction but greening nearby school land

By 2030, DfE will have:

- Increased biodiversity on the education estate and implemented 'Green Corridors' along the routes between settings
- Supported the DoT to increase active travel to school, in line with the Prime Minister's vision that half of all short urban journeys will be walked or cycled
- Minimised barriers to nature in school building design and standards.

4. Heating solutions

The DfE are launching ten pilots to test Energy Pods as low-carbon heating solutions in existing school and college buildings. In 2022, they will:

- Test the feasibility of replacing school boiler with ground or air source solutions and consider how this can be scaled up
- Continue to work with BEIS to help education settings access the Public Sector Decarbonisation Scheme

5. Water strategy

The DfE will work in partnership with EA, water companies and local authorities to improve:

- Flood resilience
- Sustainable urban drainage
- Water efficiency
- Resilience to drought

They will improve awareness of risk and resilience and encourage education settings to sign up for weather and flood warnings. Schools at highest risk will be able to use template for emergency planning. Additionally:

- By 2023 school flood risks will be displayed with other information on the National Education Nature Park
- By 2026, over 800 schools will have lower flood risk
- By 2030 (if work with the water industry is successful) the 10,000 least water-efficient schools will have significantly reduced usage and spend
- Strategic action will be aligned with EA's strategy to ensure education settings are resilient to flooding and coastal change

6. Reporting frameworks, reporting processes and targets

The DfE will develop guidance for the education sector on monitoring and reporting and will look to support and facilitate reporting. By 2024, data from the school estate will be collected directly, ensuring that all schools are reporting emissions in the same way. Smart meters will improve data accuracy.

DfE support for the Queen's Jubilee Challenge will ensure that FE and HE also achieve this by 2024. From 2025, FE and HE will work towards published targets and there will be work with nurseries and schools on data gathering. The DfE will work with the Let's Go Zero campaign to set targets for schools for 2025-35.

Action area 4: Operations and supply chains

DfE recognises that driving sustainability is most effective when linked to education and educating children in areas such as the circular economy, waste prevention and resource efficiency will instil habits for later life. The DfE will publish and monitor progress against a Corporate Sustainability Strategy, aligned with this strategy, the Greening Government Commitments and its own overall organisational strategy.

By 2023, DfE will:

- Start rolling out carbon literacy training for locally maintained education setting
- Support collaboration to identify Climate Ambassadors to work with schools and FE on action plans
- Update Good Estate Management for Schools (GEMS) guidance with the latest advice and signposting to third-party materials
- Encourage sustainable procurement by schools, e.g. from companies with net zero plans for 2050 and from procurement frameworks offering sustainable goods and services
- Share best practice for sustainable food choices including piloting a food curriculum, piloting training for school governors, promoting transparent school food arrangements and supporting schools in sustainable food practices including action on food waste
- Support education settings to align with DEFRA's Resources and Waste Strategy, avoiding single-use items and using reusable alternatives where possible
- Continue to encourage all settings to drive initiatives that promote the circular economy
- Continue to offer free sustainable period products in schools and colleges
- Seek opportunities to rationalise deliveries to education settings including guidance on consolidating food deliveries and sourcing local food

By 2025:

- All education settings will have a sustainability lead and a climate action plan
- All products and services DfE procures for schools will go through environmental procurement frameworks

And DfE will:

- Highlight procurement frameworks which are sustainable and net zero-compliant
- Ensure support to help schools generate energy or reduce consumption
- Eradicate single-use plastics and encourage use of reusable and recyclable materials in schools, and encourage other settings to match this target
- With DEFRA, provide guidance to education settings to comply with the Environment Act 2021, diverting more material from landfill for recycling
- With the Standards and Testing Agency, develop a sustainable assessment model
- Continue to support DEFRA to eliminate unnecessary plastics in education settings

By 2023:

- Education settings will support a circular economy

Action area 5: International

By making the UK education sector world leading in sustainability and climate change, DfE want to inspire and respond to international action. DfE will take positive international action to enhance climate change and sustainability learning. It will working across government and align with the UK

Government's International Education Strategy. The international action in this strategy represents the whole UK. At COP26 and through its work programme, DfE is positioning education as integral to achieving climate goals.

Champion education and learning on the global stage

DfE will use international dialogue and communication to promote education as a key tool for tackling climate change, promoting youth voice and other countries' and stakeholders' experiences in discussions.

Inspire, share and learn

Working across government and with international partners, DfE will:

- Exchange good practice on climate education, learning and sustainable development
- Showcase this Strategy and activities as a model
- Build an international evidence base
- Share the latest lessons and evidence from the delivery of action areas in this strategy
- Learn from others working from local to international levels

Trade and exports

Provide expertise and services to support others to achieve net zero targets and improve climate education, identifying export opportunities for climate learning programmes including the National Education Nature Park, and continue work with FE and HE develop green-skills learning opportunities to attract overseas students.

International initiatives

DfE will seek to broaden its actions to share innovation and provide opportunities for young people from across the world to connect and learn. It will support UK universities to deliver an annual International Green Skills Conference, enable children overseas to connect with the National Education Nature Park virtually and develop an international climate leaders award by 2027.

Leadership, engagement and next steps

Leadership

The Secretary of State for Education will also be Climate Change Minister for the DfE and will oversee the Climate Leaders Award. The Climate Change Minister role will be supported by the other DfE ministers. The DfE will nominate a non-executive director for climate change to provide advocacy, leadership and support for the DfE's unique climate mission.

Engagement

The DfE will continue engagement work begun in November 2021 through a quarterly youth panel and user group to ensure the strategy meets young people's needs.

Next steps

The DfE will publish progress each year and set out new action. The following actions will support this:

- Annual climate literacy survey for school leavers from 2022
- Published risk assessment of flood, overheating and water scarcity of the education estate, annually reviewed, from 2023
- 2023 baseline on biodiversity from the education estate to allow annual progress reporting
- 2024 baseline on on-site emissions from the education estate and progress against national targets published from 2025

Summary by Gary Griffiths for:
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