

Summary of Current Eco Education Landscape

Environmental Education Frameworks

Traditionally, 'Eco', 'Sustainability' and 'Environmental' ideas have been bound with the concept of 'Education for Sustainable Development' (ESD). ESD is supported by the United Nations (UN) organisations and its agency, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) which describe ESD as "empowering learners of all ages with the knowledge, skills, values and attitudes to address the interconnected global challenges we are facing, including climate change, environmental degradation, loss of biodiversity, poverty and inequality."¹

In 2020, UNESCO launched the 'ESD for 2030' campaign which sets out a plan of action to accelerate ESD in the decade of action to deliver the Sustainable Development Goals (SDGs).² Many educators use the SDGs as a framework for structuring learning, explicitly linking topics and lesson ideas to specific SDGs.

Numerous books have been written which provide a detailed summary of the ideas around ESD including 'Environmental Education in the Primary School (Primary matters)' published in 1990 by Philip Neal, Joy Palmer and Philip Neale.

Hanna Sjogren in her article 'More of the same: A critical analysis of the formations of teacher students through education for sustainable development'³ provides a useful summary of the critical reflections of ESD. Current discussion moves the framework beyond development and instead focuses on ideas of '**Education for Sustainable Lifestyles**' (ESL). The One Planet Network⁴ is the UN network of the 10 Year Framework of Programmes on Sustainable Consumption and Production which has coordinated much of the development around ideas of ESL. The One Planet Network runs the Global Search for Sustainable Schools which is an exciting new project being run under the SLE Programme. Nine countries across the world are coming together to run national competitions that will ask students to submit plans for making their schools sustainable. The winning schools will be given grants to implement their ideas from the beginning of 2020, turning their dreams into reality with the support of experts from their country and around the world.⁵ The One Planet World Network also manages a database of reports and teaching resources from a variety of global partners.⁶

A variety of academics provide useful discussions of the state of environmental education including, Dr Melissa Glackin from King's College London in an interview with the charity traid.⁷ Bill Scott at the University of Bath writes a regular blog which explores a variety of issues around environmental

¹ https://en.unesco.org/themes/education-sustainable-development

² https://unesdoc.unesco.org/ark:/48223/pf0000374802

³ https://www.tandfonline.com/doi/full/10.1080/13504622.2019.1675595

⁴ https://www.oneplanetnetwork.org/sustainable-lifestyles-and-education

⁵ https://sustainableschools.vision/about/

⁶ https://sustainablelifestyleseducation.org/

⁷ https://www.traid.org.uk/environmental-education/



education.⁸ Whilst the ecologist recently published an article from Bonnie Welch summarising her thoughts around rethinking environmental education.⁹

The **UK National Association for Environmental Education (NAEE)** has been promoting environmental education in the UK for 50 years, supporting all those involved in its delivery, so that together we can understand and act on the need to live more sustainably in order to protect the future of our planet. In 2018, NAEE received a Green Apple award for its support of environmental education.

Sustainability and Environmental Education (SEEd) is an education charity, which uses capacity building and the catalysation of new audiences as its main social change approaches. They combine this with cross-sectoral learning, social learning, innovation, new collaborations, and scaling-up methods. The Sustainable School's Whole School Approach and the Sustainable Schools Alliance membership programme for schools is a project of SEEd and helps schools embed sustainability and learning for sustainability throughout the school.As Key Partners with UNESCO, SEEd have developed a backgrounder document on Whole School Approaches¹⁰ to sustainability and environmental education.

The **World's Largest Lesson** is a programme from Project Everyone. Started in 2015, the initiative promotes use of the Sustainable Development Goals in learning so that children can contribute to a better future for all. The World's Largest Lesson produces creative tools for educators and action focussed learning experiences for children and young people that build skills and motivation to take action for the SDGs. Each year they create campaigns and challenges to keep student learning engaging and relevant as well as support these with local activations to make sure no one is left behind. In 2019 the programme reached 17.9 million children located in over 160 countries.¹¹



Transformative Teaching changes people by "fundamentally altering the way learners understand themselves and others, the way they engage in and contribute to their larger world."¹²

⁸ https://blogs.bath.ac.uk/edswahs/author/edswahs/

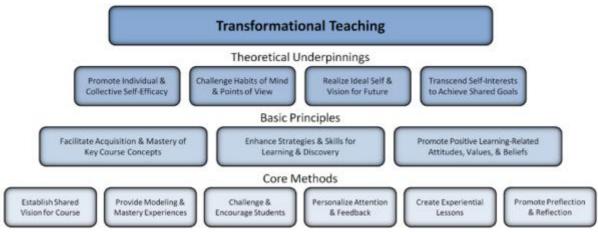
⁹ https://theecologist.org/2020/feb/05/rethinking-environmental-education

¹⁰ https://se-ed.co.uk/edu/wp-content/uploads/2016/10/Backgrounder-GAP-PN-2-1.pdf

¹¹ https://worldslargestlesson.globalgoals.org/about-us/

¹² https://www.opencolleges.edu.au/informed/features/4-big-things-transformational-teachers-do





Theoretical underpinnings, basic principles, and core methods of transformational teaching.¹³

Transformational teaching is an approach to classroom instruction that involves increasing students' mastery of key course concepts while transforming their learning-related attitudes, values, beliefs, and skills. The approach is rooted in social cognitive theory (e.g., instructors promote students' individual and collective efficacy), transformative learning theory (e.g., instructors help students' realise their ideal self and vision for the future), and transformational leadership (e.g., instructors motivate and empower students to transcend self-interests to maximise their potential and achieve shared goals). These theoretical perspectives can be distilled into three basic principles, which include: facilitating students' acquisition and mastery of key course concepts, enhancing students' strategies and skills for learning and discovery, and promoting students' positive learning-related attitudes, values, and beliefs.¹⁴

Similarly **Critical Pedagogy** is a philosophy of education and social movement that applies concepts from critical theory to education. Critical Pedagogy insists that issues of social justice and democracy are not distinct from acts of teaching and learning.

In the following extracts from an article for the Guardian¹⁵ Taite Coles explains the need for critical pedagogy in education.

"Schools must develop a commitment to civic courage and social responsibility that ignites bravery in young people to realise they have the power and opportunity to challenge the status quo. School leaders have a duty to promote learning that encourage students to question rather than forcing teachers to lead drill-oriented, stimulus-and-response methodologies. Teachers must awaken the passions of their students and teach the knowledge and skills needed to direct and sustain it.

Students need the freedom and encouragement to determine and discover who they are and to understand that the system shouldn't define them – but rather give them the skills, knowledge and beliefs to understand that they can set the agenda. Educators must be prepared to embrace a radical pedagogy and believe that each school should be one of freedom that provokes students to fight against the corridors of power and enforce equality for themselves and others.

¹³ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3498956/figure/F1/

¹⁴ https://pubmed.ncbi.nlm.nih.gov/23162369/

¹⁵ https://www.theguardian.com/teacher-network/teacher-blog/2014/feb/25/critical-pedagogy-schools-students-challenge



Critical pedagogy is the only way to achieve this. The philosophy was first described by Paulo Freire and has since been developed by the likes of Henry Giroux, Peter McLaren and Roger Simon. Critical pedagogy isn't a prescriptive set of practices – it's a continuous moral project that enables young people to develop a social awareness of freedom. This pedagogy connects classroom learning with the experiences, histories and resources that every student brings to their school. It allows students to understand that with knowledge comes power; the power that can enable young people to do something differently in their moment in time and take positive and constructive action.

Education has the power to change social inequality by nurturing a generation with an educated mistrust of everything that has been indoctrinated before. This educational stance is one that we must all strive for as the moral purpose of education."

Forest School is a child-centred inspirational learning process that offers opportunities for holistic growth through regular sessions. It is a long-term program that supports play, exploration and supported risk taking. It develops confidence and self-esteem through learner inspired, hands-on experiences in a natural setting.¹⁶ Forest School arrived in the UK in 1993 after a group of nursery nurses at Bridgwater College in Somerset visited Denmark to look at the pre-school system. They noted the open air culture 'friluftsliv' which is seen as a way of life in Scandinavia and permeates early years education. In 1995 the college developed a BTech in Forest School. From 2000, Wales and local authorities in England took up Forest School and in 2003 a group of trainers supported by the Forestry Commission in Wales developed the Open College Network qualification. In 2002 the first national conference was held in the Uk and in 2011 the Forest School Association was set up with clear principles and criteria.

The **Council for Learning Outside the Classroom** (CLOtC) is a charity existing to champion learning outside the classroom. The Learning Outside the Classroom (LOtC) website provides information, advice and guidance designed to help schools, educational practitioners and others working with young people to plan, run and evaluate exciting and challenging LOtC activities. The website collates a variety of environmental education resources.¹⁷ The LOtC Quality Badge. This is a national accreditation recognising organisations that provide good quality educational experiences and manage risk effectively. Supported by the majority of Local Authority Outdoor Education Advisers, the LOtC Quality Badge makes it easier for anyone organising educational visits to gain approval and provides assurance that their chosen destination has met 6 nationally recognised quality indicators. The CLOtC annual conference in Blackpool hosted jointly with the Outdoor Education Advisers saw 300 delegates come together. In 2019/20, 116 new awards were made across all accreditation types. CLOtC's small staff team delivered face to face CPD with over 200 teachers, teaching assistants and LOtC providers.

The **Field Studies Council** is a company with the ambition to "create a world where everyone feels connected to the environment so they can enjoy the benefits it gives and make choices that help protect it".¹⁸ The Field Studies Council provides educational courses to school groups and universities through its 19 field studies centres.¹⁹ The organisation also publishes a range of fieldwork related guides, most notably the series of identification cards. In 2019 the Field Studies Council worked with 163,907 learners, people who attended a course or event.

¹⁶ https://forestschoolassociation.org/what-is-forest-school/

¹⁷ https://www.lotc.org.uk/resources/education-resources/

¹⁸ https://www.field-studies-council.org/about-us/

¹⁹ https://www.field-studies-council.org/wp-content/uploads/2020/10/2019-Reportaccounts-signed.pdf



The consortium of **Development Education Centres** is a network of centres across the UK that support and deliver global learning. The Leeds DEC has created a variety of high quality teaching resources for specific subjects.²⁰ Similarly, the Cumbria DEC has resources for sale around specific books.²¹

Tide Global Learning is a teachers' network established in 1975 with the core notion of teachers and other education practitioners coming together to engage with the needs of learners in the context of global perspectives, human rights, sustainability and development issues. Tide publishes an online magazine called 'The Elephant Times'.²² Tide provides resources and publications to support teaching.

Global Dimension is the UK's leading Global Learning platform, supporting a community of educators in bringing global connection, compassion, and conversation to life for their students. The Global Dimension website is powered by Reboot the Future, a small foundation with a vision of a compassionate and sustainable world powered by conversation and connection, with the Golden Rule at the core. The Golden Rule: Treat others and the planet as you would wish to be treated. The organisation provides quality assured teaching resources and run a variety of campaigns.

Kurt Hahn was a key figure in the development of experiential education. Kurt founded the Atlantic College, the first United World College, the Duke of Edinburgh's Award, Gordonstoun, Outward Bound and Salem. Kurt Hahn had a vision of the kind of school he wanted to create. It would be a school designed to help children discover their interests and passions, not just prepare them for tests. And it would be a school devoted to character development. At Selm, Hahn developed a set of principles to guide education at the school; he called his principles the "Seven Laws of Salem."²³

1. Give the children opportunities for self-discovery.

"Every girl and boy has a 'grande passion,' often hidden and unrealised to the end of life... It can and will be revealed by the child coming into close touch with a number of different activities."

2. Make the children meet with triumph and defeat.

"Salem believes you ought to discover the child's weaknesses as well as his strengths. Allow him to engage in enterprises in which he is likely to fail, and do not hush up his failure. Teach him to overcome defeat."

3. Give the children the opportunity of self-effacement in the common cause.

"Even the youngsters ought to undertake tasks which are of definite importance for the community."

4. Provide periods of silence.

"Unless the present-day generation acquires early habits of quiet and reflection, it will be speedily and prematurely used up by the nerve exhausting and distracting civilization of today."

5. Train the imagination.

²⁰ https://leedsdec.org.uk/climate-action-6/

²¹ https://www.cdec.org.uk/use-our-resources/resources-for-sale/

²² https://www.tidegloballearning.net/about/elephant-times

²³ https://www.apmreports.org/episode/2015/09/10/kurt-hahn-and-the-roots-of-expeditionary-learning



"You must call it into action, otherwise it becomes atrophied like a muscle not in use. The power to resist the pressing stimulus of the hour and the moment cannot be acquired in later life; it often depends on the ability to visualize what you plan and hope and fear for the future."

6. Make games important but not predominant.

"Athletics do not suffer by being put in their place. In fact you restore the dignity of the usurper by dethroning him."

7. Free the sons of the wealthy and powerful from the enervating sense of privilege.

"[R]ich girls and boys wholly thrown into each other's company are not given a chance of growing into men and women who can overcome. Let them share the experience of an enthralling school life with sons and daughters of those who have to struggle for their existence. No school can build up a tradition of self discipline on vigorous but joyous endeavour, unless at least 30% of the children come from homes where life is not only simple but even hard."

In a recent blog post for Se-ed, Dr Ksenija Kuzmina explores the purpose of **Education for Alternative Futures**²⁴, pointing out "the ongoing discourse of linking education to exams, individual progression, and job opportunities is reductionist and not fit for purpose. There is an implicit call to action – to revise the purpose of what education is and what it might be for. Education needs new narratives." Kensija outlines the importance of:

- 1. Activating young people to become environmental and social change makers at a local level
- 2. Supporting creativity and innovation
- 3. Facilitating enriched learning experiences
- 4. Enabling critical reflection

The Harmony Project takes its inspiration from HRH The Prince of Wales' vision set out in his book 'Harmony: A new way of looking at our world'. This vision goes on to explain that, "by turning to Nature as our teacher, we are better placed to tackle the challenges facing humankind."²⁵

Created in 2018, The Harmony Project recognises the impact of human activity on the natural world, and humankind's increasing disconnection from Nature. But the Project is founded on the strongly held belief that the solutions to these problems are close at hand. By learning from Nature about principles that maintain balance, well-being and Harmony – and from studying the teachings of timeless wisdom and traditions – we are able to create healthier and more sustainable systems, and ways of living and being.

The Harmony Project is embedded within the Sustainable Food Trust (SFT), a charity which is mindful of its deep-rooted educational purpose. The SFT's wider mission is to promote sustainable practice beyond food and farming, and to nurture a deeper understanding of the impact that the choices we make, and the actions we take, have at a local and a global level.

The Harmony Project envisions a way of living and being based upon a deep understanding of – and connection to – the natural world; a way of living and being, in every area of our lives, that is shaped by the application of principles of Harmony and by the timeless wisdom of great spiritual traditions.

²⁴ https://se-ed.co.uk/edu/purpose-of-education-for-alternative-futures/

²⁵ https://www.theharmonyproject.org.uk/about-us/



The Harmony Project aims to

- show how all life is connected and how principles of Harmony maintain a dynamic balance in Nature
- promote an understanding of how these principles can help us live and work in harmony with Nature and with one another
- support the adoption of an approach to learning that has principles of Harmony at its core, across diverse educational contexts
- develop a network of Harmony centres of excellence and Harmony Practitioners, who apply principles of Harmony to the ways in which they live and work
- research the impact of the application of Harmony principles and disseminate practice more widely to guide and inspire others to take action

Harmony provides guiding principles and fundamental approaches for an alternative curriculum.



UK Primary Education

As of 2018/19 there were around 32,770 schools in the UK. Of these, 3,714 were nurseries or earlylearning centres, 20,832 were primary schools, 19 were middle schools and 4,188 were secondary schools. There were 2,408 independent schools, 1,257 special schools and 352 pupil referral units.²⁶

There were more than 10.3 million full and part time pupils at school in the UK. 8.8 million in England, 468,838 in Wales, 693,251 in Scotland, 338,957 in Northern Ireland.

There were 506,400 full-time teachers in the UK. 216,500 work in primary schools, 208,300 work in secondary schools, 61,500 work in independent schools and 16,700 work in special schools. 30.5% of these teachers are male, and 69.5% are female. However, at primary school level, this rises to 82.4% female.

National Curriculum England

The Early years foundation stage (EYFS) statutory framework is the standards that school and childcare providers must meet for the learning, development and care of children from birth to 5.²⁷ The EYFS was recently altered with an updated version from Sept 2021. The framework uses the term 'environment' 7 times with 2 of these referring to the natural environment whilst the others are associated with safety and suitable learning space. The section 'Understanding the World' contains the most direct references to eco education. Children are expected to 'Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps;' other references include "Explore the natural world around them, making observations and drawing pictures of animals and plants; Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class; Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter."

All other aspects of the EYFS framework have the potential to be engaged through the environmental lens.

The key stage 1 and 2 national curriculum is broken down into 12 compulsory subjects and 3 optional. ²⁸ The key stage 1 and 2 national curriculum was last updated in 2013 for implementation in 2014. The framework is broken down into bullet points of statutory requirements and more detailed notes and guidance of non-statutory suggestions.

Compulsory	Optional
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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/657907/SFR64_2017_Tables. xlsx 27

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974907/E YFS_framework_-_March_2021.pdf

²⁸ https://www.gov.uk/national-curriculum/key-stage-1-and-2



 english maths science design and technology history geography art and design music physical education (PE), including swimming 	 personal, social and health education (PSHE) citizenship modern foreign languages (at key stage 1)
 computing ancient and modern foreign languages (at key stage 2) 	

In Year 1 the curriculum is divided into 'working scientifically', 'plants', 'animals, including humans', 'everyday materials' and 'seasonal changes'. In particular, children are expected to have been taught ideas such as:

- identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
- identify and describe the basic structure of a variety of common flowering plants, including trees
- identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- identify and name a variety of common animals that are carnivores, herbivores and omnivores
- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies

The Key stage 1 and 2 curriculum document refers to the 'environment' 27 times.

One of the most interesting sentences in the curriculum is found in the Year 4 'Living things and their habitats' section; 'recognise that environments can change and that this can sometimes pose dangers to living things.'

David Attenborough and Jane Goodall are references on page 168 of the curriculum, as examples of naturalists and animal behaviourists who might be studied.

There is no reference to climate change or the climate and nature emergency in the key stage 1 and 2 national curriculum.

Different curriculums operate in both Wales and Scotland though the general progression and themes are similar. In Wales subjects such as Geography have a single document which outlines the curriculum from age 7 to 19 for specific subjects.²⁹ In 2016, Wales appointed Sophie Howe as

²⁹ https://hwb.gov.wales/api/storage/6fce280a-8132-4969-b821-a7313a2be719/geography-in-the-national-curriculum.pdf



the Future Generations Commissioner for Wales.³⁰ Wales has undergone a curriculum review³¹ which will be implemented from September 2022, the curriculum is based around four purposes and looks to:

- help practitioners to develop a more integrated approach to learning
- Support schools to design their own curriculum and assessment arrangements
- ensure assessment and learners' progression are intrinsic to a setting or school's curriculum

Scotland operates the Curriculum for Excellence (CfE) implemented in 2010.³² An interesting aspect of the CfE is its intent to foster four capacities in all young people:

- 1. successful learners
- 2. confident individuals
- 3. responsible citizens
- 4. effective contributors

These capacities convey a desired attitude and ethos towards the world.

Sustainability is a key theme in the CfE recognising it as a cross-curricular approach to build a socially just, sustainable and equitable society. The CfE goes on to describe 'An effective whole school and community approach to learning for sustainability combines global citizenship, sustainable development education and outdoor learning to create coherent, rewarding and transformative learning experiences.' A number of documents provide further support and guidance for this aim including:

- □ Learning for sustainability action plan³³
- □ Vision 2030+ report³⁴
- □ Building better schools: investing in Scotland's future³⁵
- □ Education Scotland: self-evaluation and improvement framework for learning for sustainability³⁶
- Learning for sustainability: report by One Planet Schools Working Group³⁷
- □ National Improvement Hub: learning for sustainability³⁸

Ofsted

³⁰ https://www.futuregenerations.wales/team/sophie-howe/

³¹ https://gov.wales/curriculum-wales-overview

³² https://www.gov.scot/policies/schools/school-curriculum/

³³ https://www.gov.scot/publications/learning-for-sustainability-vision-2030-action-plan/

³⁴ https://education.gov.scot/improvement/self-

evaluation/Vision%202030+%20Report:%20Concluding%20Report%20of%20the%20Learning%20for%20Sustainability%20National%20Implementation%20Group

³⁵ https://www.gov.scot/publications/building-better-schools-investing-scotlands-future/

³⁶ https://education.gov.scot/improvement/self-

evaluation/Whole%20school%20and%20community%20approach%20to%20learning%20for%20sustainabilit y%20%28LfS%29%20-%20Self-evaluation%20and%20improvement%20framework

³⁷ https://education.gov.scot/improvement/Documents/One-planet-schools-report-learning-forsustainability.pdf

³⁸ https://education.gov.scot/improvement/learning-

resources/A%20summary%20of%20learning%20for%20sustainability%20resources



With the introduction of the new Education Inspection Framework, Ofsted are now asking schools to explain the intent, implementation and impact of their curriculum.³⁹

The Ministry of Eco Education Curriculum enables schools to communicate clearly about their curriculum intent, implementation and impact. In particular, the curriculum supports statements such as "leaders take on or construct a curriculum that is ambitious", "the knowledge and cultural capital students need to succeed in life", "teachers present subject matter clearly, promoting appropriate discussion about the subject matter they are teaching", "the curriculum extends beyond the academic, technical or vocational. It provides for learners' broader development, enabling them to develop and discover their interests and talents", "the curriculum and the provider's wider work support learners to develop their character – including their resilience, confidence and independence – and help them know how to keep physically and mentally healthy."

Place Based Education

A number of schools across the world, including the US and UK, shape their curriculum around ideas of place based education (PBE). PBE immerses students in local heritage, cultures, landscapes, opportunities and experiences, using these as a foundation for the study of subjects across the curriculum. PBE emphasises learning through participation in service projects for the local school and/or community. Promise of Place is one organisation in the US which coordinates work around PBE.⁴⁰ In particular, their website collates a variety of resources around PBE. A particular strength of PBE is the opportunity it provides educators to develop authentic ways to connect their curriculum to real life. The place-based approach brings students into their communities to learn necessary content and skills by working to meet the needs of local agencies and organisations. Students are more engaged because they know they are doing real work, teachers are reinvigorated by creating exciting learning opportunities, and the school takes on a more active role in the community.⁴¹

Project Based Learning

Project Based Learning (PBL) is a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge. Project based learning is employed by a variety of schools and creates deeper learning opportunities with greater student control and autonomy.

³⁹ https://www.gov.uk/government/publications/education-inspection-framework/education-inspection-framework

⁴⁰ https://promiseofplace.org/

⁴¹ https://rowman.com/ISBN/9781475830613/Bringing-School-to-Life-Place-Based-Education-Across-the-Curriculum





The key aspects of project based learning.42

Teacher Training

There are a number of roots into teaching and as such the provision of training around sustainability is mixed. Teachers can enter the profession via a Postgraduate Certificate in Education, School Direct (fee-funded), School Direct (Salaried), Postgraduate Teaching Apprenticeship, Teach First and Undergraduate Teacher Training.⁴³

A number of training providers and universities including the University of Plymouth and Buckinghamshire embed environmental education in their teacher training courses. The quality and length of this training varies.

In Scotland, the devolved government has committed to, "Ensure that Learning for Sustainability continues to be embedded within initial teacher education."⁴⁴

Much of the training around eco education is run by charitable organisations primarily as charged for, short courses varying from a few hours to a few days.

AimHi has developed a live and empowering four-part, online climate and nature course appropriate for educators.⁴⁵ The course teaches everything you need to know about climate, nature and how to make a difference. The course employs the organisation's innovative online communication techniques and shares a positive and empowering message.

⁴⁴ https://www.gov.scot/binaries/content/documents/govscot/publications/factsheet/2019/06/learning-for-sustainability-vision-2030-action-plan/documents/learning-for-sustainability-vision-2030-action-plan/learning-

⁴² https://my.pblworks.org/resource/document/gold_standard_pbl_essential_project_design_elements

⁴³ https://getintoteaching.education.gov.uk/ways-to-train

for-sustainability-vision-2030-actionplan/govscot%3Adocument/Learning%2Bfor%2BSustainability%2BAction%2BPlan.pdf

⁴⁵ https://www.aimhi.co/climate-course



UK Environmental Education Organisations

The next chapter explores the current picture of environmental and sustainability opportunities for schools in the UK. There is great potential in bringing together the variety of opportunities, already on offer, under one holistic curriculum to help amplify their impact and embed them within learning for every student.

Broad Initiatives

Eco Schools is a global programme engaging 19.5 million children across 67 countries, making it the largest educational programme on the planet. Introduced in 1994, Eco-Schools is operated globally by the Foundation for Environmental Education and is managed in England by Keep Britain Tidy. The Eco-Schools programme consists of three structural elements – The Seven Step Framework, the Eco-Schools Topics and assessment for the international Eco-Schools Green Flag. To be successful the programme requires support from school leaders and active involvement from staff, as well as a long-term commitment and the willingness to involve students in decision-making. The Eco-Schools Seven Steps methodology is a series of carefully engineered measures to help schools maximise the success of their Eco-School ambitions. While the Seven Steps are the most important aspect of the Eco-Schools programme, schools also work on topics to help give the programme even more structure; marine, biodiversity, energy, litter, global citizenship, healthy living, school grounds, transport, waste and water.

Eco Schools is well known throughout the UK and has great success, the programme currently has more than 20,100 schools registered in England, more than 80% of schools.

Let's Go Zero 2030 is a campaign to unite schools around the goal of becoming carbon zero by 2030. The campaign is run by Ashden (a UK-based climate solutions charity) in partnership with Global Action Plan, and a coalition of sustainable schools organisations. The campaign currently has more than 300 schools signed up. By joining the campaign, a school is publicly declaring that they want to be zero carbon by 2030, and that it wants the UK government to enable schools in the UK to take more action on this issue. The campaign is about showing aspiration. We know that being zero carbon is currently beyond the reach of most schools, but by working together and with the government we believe it is achievable by 2030. To be part of the campaign, schools are expected to be taking action to reduce their carbon impact, measuring this where feasible, and have 'next step' actions planned for the following year. They can indicate the steps they are taking from a checklist on the sign-up form. By joining the campaign, schools commit to telling their students, communities and suppliers that they are part of Let's Go Zero and aim to be zero carbon by 2030.

The Let's Go Zero campaign has great potential bringing organisations and schools together as well as conveying the intention of schools to reduce their carbon emissions.

Nature Friendly Schools is a project funded by the Department for Education and Natural England, with support from the Department for Environment, Food and Rural Affairs (DEFRA). The project is led by the Royal Society of Wildlife Trusts⁴⁶, working in partnership with Young Minds, Groundwork, the Sensory Trust, the Field Studies Council and Wildlife Trusts.

⁴⁶ https://www.wildlifetrusts.org/



The project aims to develop teachers' confidence and ability to drive forward outdoor learning in schools, giving thousands of school children from some of the most deprived areas in England the opportunity to get closer to nature. It is hoped these experiences will benefit their wider learning, health and wellbeing, and care and concern for the environment. The project aims to fuel creativity and a sense of adventure, allowing pupils to experience the job that nature can bring, removing the inequity that currently exists.

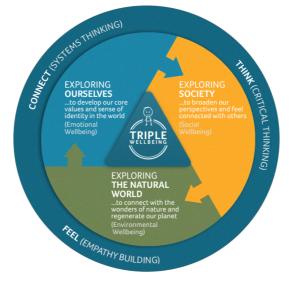
Aspects of the project involve pupils benefitting from at least two hours learning outdoors every week, experiencing wildlife on their doorstep but also further afield. This includes long term changes such as the creation of new nature areas within their school grounds or the opportunity to visit local nature reserves or parks.

The Nature Friendly Schools initiative is part of a wider commitment from the government as part of its 25 Year Environment Plan⁴⁷ which includes £10 million of funding for the DfE to deliver the Children and Nature Programme, which includes - Nature Friendly Schools, Growing Care Farming and Community Forest Woodland Outreach.

The Nature Friendly Schools initiative is a superb initiative bringing together a wide variety of highly experienced organisations. It is important to recognise the focus on the most deprived areas of the country and the relatively modest aspiration of 2 hours a week.

Our Bright Future is a partnership of 8 organisations led by the Wildlife Trusts. The initiative is a 5 year programme which aims to empower young people to become skilled and engaged citizens. To date, the programme has engaged more than 115,000 young people helping them to gain more than 6,200 qualifications.⁴⁸

Thoughtbox is a not for profit, membership community providing educators with a whole-school approach to social, emotional & global learning. Thoughtbox has worked with more than 2500 schools and 1.7 millions children across 56 countries. Thoughtbox has developed a distinctive 'triple wellbeing' approach which frames their work.



⁴⁷ https://www.gov.uk/government/publications/25-year-environment-plan

⁴⁸ https://www.ourbrightfuture.co.uk/about/



The Duke of Edinburgh's Award started in the UK in 1956 following the request of Kurt Hahn to HRH The Duke of Edinburgh. The Award is framed around four sections which involve helping the community/environment, becoming fitter, developing new skills, planning, training for and completing an expedition and working with a team on a residential activity. The Award is available for young people between the ages of 14-24. Annually nearly 300,000 young people start the DofE programme with around 160,000 completing Awards each year.⁴⁹ Awards are achieved through a variety of providers including schools, colleges, universities, youth clubs, businesses, housing associations, young offender institutions and voluntary organisations.

Some organisations choose to mirror the Award for younger students and some primary schools organise their own version including volunteering, skills, physical and an expedition.

The Duke of Edinburgh's Award has great potential to mobilise thousands of young people to engage with nature through volunteering, developing skills and the expedition.

National Citizen Service exists to "engage, unite and empower young people, building their confidence so they can go out there and achieve their dreams, no matter where they're from or what their background is." The programme is designed for 16 and 17 year olds. Young people pay to attend a 4 week programme, delivered by a local provider near where they live. The programme is broken down into 3 phases i) residential ii) skills festival iii) social action. More than 500,000 young people have completed the programme to date.⁵⁰

Green Jobs

There is currently little provision for the support and guidance on students taking up green employment. Some schools are looking to provide information around this, the Youth Climate Summit, organised by Transform Our World, interviewed a number of people around this topic. The recorded videos are a valuable resource and can be found on their youtube site.⁵¹

Conservation

National Parks, Areas of Outstanding Natural Beauty and other protected areas make up approximately 26% of land in England. The UK government recently communicated an ambition to protect 30%.⁵² A number of organisations currently provide conversation opportunities for young people.

The National Trust manages 780 miles of coastline, over 248,000 hectares of land and over 500 historic houses, parks and nature reserves.⁵³ The National Trust is the UK's largest farm owner, with more than 1,500 tenant farmers. More than 27.9 million people each year visit places looked after by the Trust. The organisation provides volunteering opportunities for young people in the gardens and parks the Trust manages. Volunteers under the age of 18 must be accompanied by an adult.

⁴⁹ https://www.dofe.org/about/

⁵⁰ https://wearencs.com/about-ncs

⁵¹ https://www.transform-our-world.org/youth-climate-summit-2020

⁵² https://www.gov.uk/government/news/pm-commits-to-protect-30-of-uk-land-in-boost-for-biodiversity

⁵³ https://www.nationaltrust.org.uk/features/information-to-journalists



Building relationships between the National Trust and local schools offers the opportunity for young people to build relationships with local places and develop their identity within their community.

The scale of the National Trust in both land and people provides an opportunity to engage large numbers of young people in volunteering through conservation as well as actively engaging with and developing a relationship with their local environment.

The John Muir Trust is a conservation charity dedicated to the experience, protection and repair of wild places. The charity defines wildness not as a place but as an experience. Since 1997, the John Muir Award has engaged 387,500 young people to connect and care for wild nature through direct, practical action to benefit themselves and their environment. The Award is broken down into four challenges which require young people to show enthusiasm and commitment towards nature over a specific time period.

The John Muir Award provides an opportunity for young people to engage with and care for a piece of nature of any scale from a window box to a whole school site. The Award is inclusive, accessible and non-competitive, though should challenge each participant. It encourages awareness and responsibility for the natural environment through a structured yet adaptable scheme, in a spirit of fun, adventure and exploration.

Throughout the UK are a variety of **Country Parks and Nature Reserves** owned by local councils, charities and private organisations. These open spaces are often used by schools as learning environments and often have trained staff to provide guided learning.

Gardening

Gardening provides a whole variety of benefits for children including; sensory development, encourages healthy eating, teaches responsibility and patience, helps with other learning, and develops social skills.⁵⁴

The **Royal Horticultural Society** runs a national campaign for school gardening which includes the School Gardener of the Year competition and School Gardening Awards. The purpose of the campaign is to inspire and support schools to provide children with gardening opportunities to enhance their skills and boost their development. Registering for the programme is free and provides access to more than 140 teaching resources. In 2010, 11,500 primary schools had signed up to the awards. A report from the national foundation for educational research highlighted the impact of school gardening on learning.⁵⁵ Key findings included;

- Greater scientific knowledge and understanding.
- Enhanced literacy and numeracy, including the use of a wider vocabulary and
- Greater oracy skills.
- Increased awareness of the seasons and understanding of food production.
- Increased confidence, resilience and self-esteem.
- Development of physical skills, including fine motor skills.

⁵⁴ https://www.earlylearningfurniture.co.uk/blog/benefits-of-gardening-with-kids.aspx

⁵⁵ https://www.nfer.ac.uk/media/2135/rhs01.pdf



- Development of a sense of responsibility.
- A positive attitude to healthy food choices.
- Positive behaviour.
- Improvements in emotional well-being.

GROW is a not for profit organisation working in schools to promote mental well-being, physical health, and a more hands on relationship with nature by delivering programmes centered around four key pillars:

- Ground Food and Farming
- Think Philosophical Thinking
- Flow Yoga and Mindfulness
- Thrive Extra-curricular (Boxing, Forest School and more)

GROW has an ambition to make the programme a feature of the national curriculum by 2030.

Trees

Trees cover 12% of UK land area, whilst of Europe's total land area, forest cover makes up 47%.⁵⁶ Trees are fundamental for a healthy earth system and provide services such as locking away carbon, as well as improving our health and wellbeing.

The Woodland Trust provides hundreds of thousands of free trees for schools and communities each year. The organisation provides two delivery periods per year, one in March and the other in November. Schools apply for tree packs, indicating a type of tree they would like. Trees arrive as bare root whips along with stakes and tree guards. The Tree Tools for Schools programme supports schools in planning, planting and caring for their tree pack. In addition to the free trees, the Woodland Trust also runs the Green Tree Schools Award which has around 12,000 schools taking part completing environmental projects to earn certificates for their pupils.

The Tree Council is a charity bringing together people with a shared mission to care for trees and our planet's future. They inspire and empower people with the knowledge and tools to create positive, lasting change at a national and local level. The Tree Council trains Tree Wardens, enabling people to play an active role in conserving and enhancing the trees and woods in communities. As well as training, the Tree Council provides funding for tree, orchard and hedge planting projects in addition to their Orchards for Schools free tree packs.

There are numerous opportunities for schools to receive free tree packs for planting each year and the appropriate training and information to care for and manage these trees.

Oceans

Our ocean covers over 70% of our planet. It provides more than half the oxygen we breathe and absorbs nearly a third of our carbon emissions. Every year, between 8 and 13 million tonnes of plastic enters our ocean. A third of our seas are called 'protected' – but they're not; in practice, less

⁵⁶ https://www.woodlandtrust.org.uk/blog/2017/12/why-do-we-need-trees/



than 1% of our seas are well-managed.⁵⁷ Our oceans are in crisis and through the interconnected nature of the climate and ecological emergency require our attention.

The Marine Conservation Society and Surfers Against Sewage, stand out as two organisations who have progressed ocean education at a national scale. Both organisations organise annual Beach Cleans, providing schools with the equipment and support to organise their own local beach clean.

The **Marine Conservation Society** is a UK-wide community of ocean lovers all working together towards a shared vision of a sea full of life, where nature flourishes and people thrive. The organisation describes it's activities as "fighting for our ocean through people-powered action, with science on our side. We defend habitats and species, working with communities, businesses and governments."⁵⁸ The Marine Conservation Society has a number of high profile education programmes which run annually, these include Beach Cleans, Ocean Superheroes, Seashore Safaris, Go Plastic Free, Stop the Plastic Tide and Ocean Acidification.⁵⁹

Surfers Against Sewage is a marine conservation charity working with communities to protect oceans, waves, beaches and marine life. It was created in 1990 by a group of Cornish surfers from the villages of St Agnes and Porthtowan on the north coast of Cornwall. Surfers Against Sewage has a network of 215 regional reps and in 2019 organised 1,530 beach cleans. For schools Surfers Against sewage have a number of educational programmes including Plastic Free Schools and Ocean School.

Encounter Edu is a company which designs and delivers sponsored STEM and global learning programs transforming education inside and outside the classroom. Many of their programmes have a particularly strong oceans focus including Frozen Oceans. The resources are designed to facilitate immersive learning experiences, a good example is the street view style tours of the world's coral reefs. A particular strand of the organisation is connecting school children with researchers in the field with more than 125,800 engaging with academics as part of live audiences.⁶⁰

Sea Shepherd UK is an international non-profit marine wildlife conservation organization. Established in 1977, its mission is to end the destruction of habitat and slaughter of wildlife in the world's oceans in order to conserve and protect ecosystems and species. Sea Shepherd UK uses innovative direct-action tactics to investigate, document, and take action when necessary to expose and confront illegal activities on the high seas. By safeguarding the biodiversity of our delicately balanced ocean ecosystems, Sea Shepherd UK works to ensure their survival for future generations. Recently, Sea Shepherd UK launched an education site⁶¹, developed by a group of volunteers, offering teaching materials, student activities, videos and opportunities to engage with speakers.

Food

The School Food Plan published in 2013 provides little direction for the sustainability of school food and instead focuses on the nutritional importance of food from a human perspective. One sentence stands out; "eating in school should be a pleasurable experience: time spent sharing good food with

⁵⁷ https://www.mcsuk.org/ocean-emergency/

⁵⁸ https://www.mcsuk.org/about-us/what-we-do/

⁵⁹ https://www.mcsuk.org/what-you-can-do/fun-learning/

⁶⁰ https://encounteredu.com/about

⁶¹ https://education.seashepherd.org.uk/



peers and teachers."⁶² Highlighting the social importance of sitting down with people to share food and conversation.

The **National Food Strategy**, independent review, is currently being carried out and will have a much greater emphasis on balancing the demands of food production and nutrition with it's impact on the planet. The initial report suggests "Intensive farming practises have caused serious damage to the environment and the food related disease is costing the NHS billions and drastically harming the lives of millions. Food security, too, is a growing concern: population growth, climate change, the global increase in meat eating are intensifying resource competition between nations."⁶³ When the second part of the report is published later this year, it is likely to provide much more direction on the procurement of food for the public sector and give schools much greater instruction to improve the sustainability of the food they provide. Image schools where the majority of the food is plant based.

The **Soil Association** is the UK's leading membership charity campaigning for healthy, humane and sustainable food, farming and land use. The Soil Association runs the Food for Life programme providing a wealth of resources and activities for schools to affect long term change around food. The Soil Association also offers the Food for Life Schools Award which is a great way for schools to demonstrate that they are doing fantastic work to provide healthy school meals, great lunchtimes and food education that has a positive impact on both pupils and the wider community.

The Vegetarian Society carried out a survey to inform its response to the National Food Strategy. The findings suggest "The government should ensure vegetarian cooking and nutrition is taught in all schools, alongside the environmental impact of meat, fish and dairy. 82.4% of respondents to the survey agreed that vegetarian cooking and nutrition should be taught in all schools. 90.2% of respondents believe that the environmental impact of meat and fish should be taught and 89.2% of respondents believe the environmental impact of dairy should be taught." Respondents also suggested "The public sector should be leading the way in promoting and providing vegetarian and vegan food. 40.4% of vegetarians and vegans believe that food provided in the public sector should be vegetarian and vegan, unless someone requests a meat or fish option. In addition, 37.6% of vegetarians and vegans believe that only vegetarian and vegan food should be served in the public sector."⁶⁴

Love Food Hate Waste is a campaign developed by WRAP which aims to raise awareness of the need to reduce food waste and help us take action. It shows that by doing some easy practical everyday things in the home we can all waste less food, which will ultimately benefit our purses and the environment too. Love Food Hate Waste organises an annual Food Waste Action Week and provides a variety of resources suitable for schools.

⁶²

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/847621/S chool-Food-Standards-Guidance-FINAL-V3.pdf

⁶³ https://www.nationalfoodstrategy.org/

⁶⁴ https://vegsoc.org/comment-opinion/national-food-strategy/



Birds

The Big Garden Birdwatch⁶⁵ highlighted that 16 of Britain's top 20 garden birds have declined in number.

The **Royal Society for the Protection of Birds (RSPB)** is the UK's largest nature conservation charity, established in 1889, on a mission to create bigger, better, more joined-up spaces to save our wildlife, and our shared home. The RSPB runs a number of national school campaigns including the Schools Wild Challenge and Big Schools' Birdwatch. The organisation also provides advice for trips and educational outreach as well as teaching resources through its website.

Travel

Travel has sometimes been a neglected element of sustainability initiatives within schools. Many schools have continued to organise school trips which rely on long haul flights and felt reluctant to challenge the travel habits of parents and staff. In the UK only 2% of school children cycle to school.

A number of organisations work nationally to promote **Active Travel** including Sustrans and Living Streets. Organisations have Active Travel Officers often funded by local authorities who work with individual schools around increasing the number of students walking and cycling to school. A number of national campaigns are run at a variety of times of year including the Big Pedal, Walk to School Week and Bike to School Week.

Flight Free UK began life in February 2019 inspired by the Swedish Flygfritt (flight free) movement. The organisation runs the Flight Free Pledge which asks people to stay grounded for a year in order to reduce their carbon footprint, re-discover the joys of overland travel, and begin to shift the social norm away from aviation. The campaign has lots of potential for school communities to sign up to live flight free.

School Trips play a vital role in immersing young people with nature. The recent pandemic paused these opportunities but once again schools are carrying out day and residential trips to engage young people with the world around them.

Across the UK there are a network of **Environment Centres**, many of these are council run whilst others are independent or part of charitable organisations. Environment Centres provide the opportunity for local outdoor learning led by trained professionals as well as longer residential visits.

Energy

Energy costs are often the second highest expenditure in schools, after the staff wage bill. Energy costs per pupil range from £26 to £64 in secondary schools and between £16 and £51 in primary schools.⁶⁶

⁶⁵ https://www.theguardian.com/environment/2021/apr/09/sixteen-of-britains-top-20-garden-birds-have-declined-in-number-annual-survey-finds

⁶⁶ https://www.gov.uk/government/publications/school-procurement-buying-a-multi-functional-device-mfd



Energy in Schools⁶⁷ was a recent UK government initiative which had four main goals:

- Help schools reduce energy consumption.
- Help schools reduce energy costs by switching to time-of-use4 (ToU) tariffs which are tailored to the way schools use energy throughout the day and by reducing dependence on energy brokers.
- Improve pupils' and teachers' understanding of climate change, energy and computing.
- Empower pupils to lead the way via an 'Energy Champions' training programme to support whole-school behaviour change.

There are a number of organisations who've been working with schools to shift them to renewable electricity contracts and instal solar panels on school buildings. Most recently, Ashden has launched the **Let's Go Zero 2030** campaign which is explored earlier in the report.

Campaign Groups

The last few years have seen the growth of a number of young climate and environmental campaign groups bringing young people together to amplify their voice and communicate their concerns for the world.

#FridaysForFuture is a movement that began in August 2018, after 15-year-old Greta Thunberg and other young activists sat in front of the Swedish parliament every school day for three weeks, to protest against the lack of action on the climate crisis. Greta posted what she was doing on Instagram and Twitter and it soon went viral. The organisation has since helped organise more than 14 million young people to take part in climate strikes across the world.

Teach the Future describes itself as "an inclusive, well organised and persistent campaign by secondary and tertiary education students to greatly improve education on the climate emergency and ecological crisis in the UK."⁶⁸ The English campaign has two parent organisations, UK Student Climate Network (UKSCN)⁶⁹ and Students Organising for Sustainability UK (SOS-UK)⁷⁰. The Scottish campaign has two parent organisations, FFF Scotland and NUS Scotland. The Welsh campaign has one parent organisation, UKSCN Wales. The campaign is led by a team of over 40 young volunteers and advised by an adult advisory board. The group has organised a number of high profile campaigns and events and campaign for:

- A government commissioned review into how the whole of the English formal education system is preparing students for the climate emergency and ecological crisis
- Inclusion of the climate emergency and ecological crisis in English teacher standards
- An English Climate Emergency Education Act
- A national climate emergency youth voice grant fund
- A national Youth Climate Endowment Fund

⁶⁷

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933637/1 8-007974-01-EnergyInSchools-evaluation-case-study.pdf

⁶⁸ https://www.teachthefuture.uk/about

⁶⁹ https://ukscn.org/

⁷⁰ https://www.sos-uk.org/



• All new state-funded educational buildings should be net-zero from 2020; all existing statefunded educational buildings net-zero by 2030

UK Youth Climate Coalition (UKYCC) established in 2008, with a mission to mobilise and empower young people to take positive action for global climate justice. The group is open to 18-29 year olds who volunteer and collaborate to work towards creating a vision of a just, sustainable world in which current and future generations enjoy and protect a healthy environment.

Reading Books

Nature has always played a fundamental role for creatives of all types including poets and authors. Over the last few years schools have sought to incorporate a greater proportion of literature with environmental themes. Many authors have developed supporting materials and resources linked to their books to help teachers better engage their students with their themes in school.

Author **Robert McFarlane** has launched a variety of teaching resources⁷¹ linked to his books The Lost Words, The Lost Spells and Spell Songs which provide creative activities to explore the language and imagery of nature.

Nature Connectedness

A variety of initiatives look to develop young people's sense of a relationship with nature, many of these are focussed around specific activities which target certain age groups or work within time bound periods of the year.

National Trust - 50 things to do before 11³/₄

In 2012, behaviour change⁷² created 50 things to do before you're 11³/₄ for the National Trust. The initiative is designed to encourage a new generation of sofa-bound children to rediscover the joys of den-building and tree climbing, with an ultimate aim to reconnect young people with nature and the environment. The activities encourage children to explore and be active in nature.

Mission: Explore

Mission: Explore make curious, creative and critical activities that help young people to explore, play and learn outdoors. The series of books were developed by The Geography Collective, a group of Guerilla Geographers: grown ups enthusiastic professionals who encourage kids to re-discover the world and bring enthusiasm and excitement into learning. Young explorers can independently complete fun and adventurous missions through research, analysis and observation of our surroundings. Packed with colourful drawings, basic training and advice to safely carry out the activities, these books are fun and motivate children (and grown ups) to get to know and care about the environment, learn and improve skills, explore, try new things and get involved. The books in the Mission: Explore series include Geography Collective, On the Road, Camping and their latest one Food.

⁷¹ https://www.thelostwords.org/resources/

⁷² https://behaviourchange.org.uk/case-studies/50-things-to-do-before-youre-11-and-3-quarters



Wildlife Trust - 30 Days Wild

The 30 Days Wild initiative is an annual campaign to get people to engage with nature every day in June.

Evaluations of the project in 2015, 2016 and 2017 all found that those who took part were found to have sustained increases in happiness, health, connection to nature and pro-nature behaviours.

The Wild Network is a new, wilder way of organising and a different way of taking action, collectively. It is a not-for-profit organisation powered by Wild Labs and Green Lions. The Wild Network has created a new form of network, a broad and diverse collection of 30,000⁷³ mums, dads, guardians, community workers, activists, policy-makers, doctors, care givers, creatives, playworkers & educators and 2,000 organisations from corporates, to NGOs to hundreds of grassroots interventions with interests across nature, education, health and play. The organisation brings a community together through a range of programmes specifically designed to overcome the barriers to Wild Time using the structure in the diagram below.



Eco Councils / Groups

Schools have increasingly established groups of students from across the school community to lead on environmental initiatives. For a number of years these have been manifestations of the eco schools initiative whilst in the last couple of years they have been linked with student enthusiasm and interest from the youth climate strikes.

More recently schools created connections and networks within their local area which developed into the **UK Schools Sustainability Network.** The network provides support for young people to explore environmental ideas within their school community. Regular meetings are organised across the network and annual events such as the Youth Climate Summit⁷⁴ which brought together environmental organisations from across the UK in a week-long online conference.

⁷³ https://thewildnetwork.com/about/

⁷⁴ https://www.transform-our-world.org/youth-climate-summit-2020



Social Media

Over the last few years a number of people have used social media as a tool to communicate science and connect with youth audiences.

Maddie Moate is a BAFTA-winning presenter and YouTuber, passionate about curiosity. She is the host of the BAFTA-nominated CBeebies TV series "Maddie's Do You Know?", BBC Earth's "Earth Unplugged" and Fully Charged's YouTube series 'Maddie Goes Electric'. Maddie's online videos are perfect for primary audiences and offer "a curiosity box full of family content". Packed with films about science, wildlife, travel and engineering, she takes her audience on educational adventures and inspires them to #staycurious.⁷⁵ Along with her partner Greg Foot, Maddie recently ran a series of live broadcast videos called 'Let's Go Live'. Maddie's videos provide a wealth of resources to enrich lessons.

The **Self Isolating Bird Club** was born out of the recent lockdown and involved a variety of live broadcast videos from bird enthusiasts. The videos helped bring together a community of bird watchers and the facebook group has more than 65,000 members. The content has great potential to be integrated into lessons. The project has now morphed into People for Wildlife.⁷⁶

Documentaries

Streaming culture has given rise to a new generation of documentary lovers. School teachers are increasingly using clips from or entire documentaries as teaching resources. These environmental documentaries are often years in the making and help communicate the wonder of nature but also the damage caused by human activity.

For decades, Sir David Attenborough has been seen as the master of environmental documentaries. After one of the hottest years on record, David looked at the science of climate change and potential solutions to this global threat in the programme 'Climate Change - The Facts'. This was followed by 'Extinction - The Facts', with a million species at risk of extinction, David explored how the crisis of biodiversity has consequences for us all, including putting us at greater risk of pandemic diseases.

Greta Thunberg has also been involved in a number of documentaries including 'I Am Greta' and 'A Year To Change The World'. Both are intimate and emotive documentaries which follow Greta and her family through their journey at specific times over the last few years, communicating the successes and challenges of the extraordinary circumstances she was projected into.

An alternative wave of documentaries are much harder hitting and as result sometimes less appropriate for a young audience. An example of these documentaries include 'Seaspiracy' where viewers are faced with eye-watering facts and statistics surrounding our mistreatment of the world's oceans. From unsustainable fishing and the dumping of plastics to despicable modern slavery used to provide cheap seafood year-round, the documentary is an unflinching indictment of current practices.

⁷⁵ https://www.maddiemoate.com/

⁷⁶ https://peopleforwild.life

