

# SEEDING CHANGE

*The environment as a context for learning*

A photograph of a rural landscape. In the foreground, there is a field of green crops, possibly corn. In the middle ground, a line of trees is visible against a bright, hazy sky. The overall tone is warm and natural.

# Resource Pack

**Land-based, outdoor learning ignites curiosity and imagination, encourages collaboration and creative problem-solving, and helps young people develop a sense of themselves, each other and the world.**

This resource pack provides examples of schools, colleges, and organisations that successfully use the environment as a context for learning. It also contains ideas for projects and signposts to organisations and helpful learning resources for educators, parents, and caregivers looking to offer outdoor education.



## Edge Foundation

The world is changing fast and education needs to keep up. Edge is an independent, politically impartial education foundation. We want education to be relevant to the twenty-first century. We gather evidence through research and our grant fund which supports real world projects and partnerships, and we use this to lead the debate and influence policy and practice.

Edge believes all young people need to be equipped with the skills that today's global, digital economy demands, through a broad and balanced curriculum, high quality training, engaging real world learning and rich relationships between education and employers.

Visit [www.edge.co.uk](http://www.edge.co.uk) to find out more.



## Edge Future Learning Network

Through Edge Future Learning, we use ideas and evidence gathered through our local and global partnerships to support schools and colleges to develop their approaches to teaching and learning. The following list of schools, colleges, and organisations from our extended network serve as role models for high quality implementation of Community Connected Learning | Real World Learning | and Project Based Learning. Get inspired by their approach to environmental education!

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# Organisations known/supported by Edge/Edge Future Learning

## Abingdon & Witney College

<https://www.abingdon-witney.ac.uk/>

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Abingdon & Witney College is an award-winning FE college providing vocational as well as part-time, Higher Education, and professional courses in Oxfordshire. Their [Common Leys Farm](#) offers a unique learning environment with everything from enclosures with animals of all sizes and an award-winning thoroughbred stud farm, to an innovative agritech and livestock tech centre. Those eager to improve countryside management, ecological and horticulture skills can benefit from high-tech polytunnels and more than an acre of dedicated gardening and land maintenance space. Abingdon & Witney College were a finalist in the Edge sponsored AOC Beacon Award 2019/20

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## Barrowford Primary School

<http://barrowford.lancs.sch.uk/>

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Barrowford Primary School provides a broad and balanced curriculum that encourages children to be rounded and grounded individuals through child-centred, question-led, project-based learning. In order to empower young people to become local and global changemakers, they have embedded the Sustainable Development Goals into their curriculum and all their students take part in Forest School sessions fortnightly in their Woodland Area. Students' explorations into each of the SDGs challenges culminate in Exhibition Evenings. Learn more about their [Sustainable Curriculum](#).

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## Bishop Burton College

<https://www.bishopburton.ac.uk>

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Bishop Burton specialises in helping students develop the knowledge and skills required for a successful career in agriculture and farming. Students get to work with the Centre for Agricultural Innovation (CAI), in partnership with [NFU Mutual](#), on research projects to tackle major issues facing the industry. These projects – many of which are put into practice in the sector – enable students to enhance their research skills and forge links with farming companies which can help them launch their careers. Bishop Burton College is an Edge-sponsored [AOC Beacon Award](#) winner which celebrates the best and most innovative among UK further education colleges.

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## Capel Manor

<https://www.capel.ac.uk/>

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Capel Manor is London's only specialist environmental college, offering full and part-time courses in further and higher education for school leavers and adults. The College plays a vital role in the green agenda for the capital, equipping the next generation of land-based sector workers with the skills and knowledge needed to help preserve and protect London's wildlife, national parks and green spaces. They boast two zoos, two farms, a dog grooming parlour, laboratories, over 30-acres of gardens and working access to some of the city's best parks. From agriculture, animal management and arboriculture and forestry, to floristry, horticulture and wildlife and environmental conservation, students experience hands-on, creative and practical outdoor learning environments.

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## Eden Project

[www.edenproject.com](http://www.edenproject.com)

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The Horticulture Advocates Programme (HAP) an initiative run by Eden Project Learning (EPL) and supported by grant funding from Edge, works with schools in Cornwall to raise awareness of careers in horticulture, highlighting the connections with STEM curriculum subjects. Students gained an understanding of how they needed to draw on skills and knowledge gain in subjects ranging from geology and geography to arts and maths, together with employability skills such as teamwork, communication and budgeting. Students taking part in the 10 HAP Challenge days build a portfolio of certificates of achievement to take back to their schools to encourage their peers to look at horticulture careers as a route to global sustainability. Many of the students who had previously never considered a horticulture career are now budding landscape designers, with one student planning to redesign their grandparents' garden.

The Eden project website has a Schools & Colleges section which promotes the work Eden is doing and hosts ideas for teachers alongside information on school visits, teacher training courses and the opportunity to link into the international school gardening programme, Gardens for Life. Check out their [free resources and ideas](#).

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## School 21

<https://www.school21.org.uk/>

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School 21 is a pioneering 4 to 18 school in Stratford, East London, for children from all backgrounds, focused on supporting young people to have the knowledge, confidence, and skills to change the world for the better. They believe that to prepare young people to succeed in school, work and life - education must rebalance head (academic success), heart (character and well-being) and hand (generating ideas, problem solving, making a difference). Their [interweaving pedagogies and approaches](#) give students the chance to find their voice, develop deep knowledge and understanding, and create beautiful work that has real value beyond the classroom.

One Year 1 project on the environment led to a protest outside the Stratford Centre informing people how they could be 'greener' or more environmentally friendly, while a Year 7 project read Newham's biodiversity report and turned it into a readable leaflet to distribute to local people. In another class, students researched the effects of refuse and plastic being dumped in our oceans and created leaflets, posters, and banners to use at a campaign outside a local Sea Life Centre, persuading passers-by to be more careful with their rubbish. Read the Edge Future Learning case study on [Real World Learning at School 21 and XP](#).

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## SERC

<https://www.serc.ac.uk/>

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SERC is one of the largest further and higher education colleges in Northern Ireland, and is committed to quality education and learning opportunities for local communities. With 4 main campuses, 980 staff and over 35,000 annual enrolments with over 40 different subject areas for full or part-time study, they have the highest student success rate in Northern Ireland. SERC provides an educational experience that inspires, transforms and enriches by nurturing innovation and providing opportunities for development beyond academic and vocational achievements.

For their Woodland Project, students take responsibility for regenerating the woodland and increasing biodiversity for one year. To date 54 core Animal Management students have managed and delivered the project, helping them to become more proficient, confident and self-directed learners. SERC is an Edge-sponsored AOC Beacon Award finalist. Learn how they improved the learning experience of Level 3 Animal Management students by developing and embedding high quality, [real-life project-based learning](#) opportunities.

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## UWC Atlantic College

[www.atlanticcollege.org/](http://www.atlanticcollege.org/)

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UWC Atlantic College in Wales has been inspiring changemakers since 1962. By fostering a vibrant and dynamic learning community, they aim to realise their students highest human potential and take mindful and compassionate action. Here, the environment provides a rich context for students to embark on real-world problem solving, community-connected learning, and authentic social change projects. As part of their innovative programme to help students design and lead projects that make a real difference in their home communities, one student Nuiana is leading a climate action project to 'clean up the ocean, one cup at a time'. In her native Greenland, fishing is the main industry, but they don't have a recycling system yet to cope with all the fishing nets. Her project remolds old nets into cool travel cups.

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## Wiltshire College

<https://www.wiltshire.ac.uk/>

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Wiltshire College & University Centre is the main provider of further and higher education in Wiltshire and was founded in 2002 by the merger of Chippenham Technical College, Lackham College and Trowbridge College. They deliver farm-based practical skills and theoretical knowledge through immersive learning on a 1600-acre farm. Wiltshire College offers an exceptional and innovative approach to practical teaching, learning and assessment which is embedded within a real commercial farm environment; it is clearly having a significant impact on learners across a range of land-based curriculum areas as evident in the excellent progression and achievement data. The implementation of meaningful investigative projects develops knowledge and skills of both students and staff while providing a positive impact on productivity and inform commercial research. Wiltshire College was an Edge-sponsored AOC Beacon Award winner.

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## XP School

[xpschool.org/](https://xpschool.org/)

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XP was founded on doing things differently.

Their pedagogy is based on a combination of the [Expeditionary Learning](#) model as well as the project-based learning approach honed by [High Tech High](#).

At XP, connection to their community is crucial to the form of project-based learning they deliver. Their cross-subject ‘expeditions’ provide deep, real-world opportunities for their students to make positive contributions and initiate change in their communities.

As part of one environment-focused expedition, a group of year 7 students embarked on a ‘Grand Designs’ learning expedition to investigate ‘what in nature inspires us?’ Students explored ancient cave art, discovered more about how mathematical ratios and sequences such as the Fibonacci sequence are expressed in nature, worked together to build paths and fire pits, and studied animal poems by Ted Hughes. They also read ‘The Voyage of the Beagle’, learnt about Darwin’s theories, and followed in his footsteps by keeping scientific journals to record stories, notes, sketches of native flora and fauna alongside scientific description of their adaptations, habitat, and place in the food web. Students tied this all together by creating beautiful, scientifically-accurate prints showcased in their school and bound into a book. They have made all of their [learning expeditions](#) open to the public.

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# Organisations that offer resources

## ARKive

[www.arkive.org/education](http://www.arkive.org/education)

ARKive is the ultimate multimedia guide to the world's endangered species. Whether you are a teacher or a student, explore and search for videos, photos and facts about the world's endangered biodiversity and conservation issues.

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## British Council

British Council's [school resources on climate change](#)

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## Climate Education Week

[Climate Education Week 2017](#) Toolkit

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## DECC

[www.decc.gov.uk](http://www.decc.gov.uk)

DECC My2050 in collaboration with Involve, Think Global and Sciencewise-ERC, the Department of Energy and Climate Change has created a classroom toolkit to help teachers engage Key Stage 3 and 4 students in debates about the energy choices we will have to make to reduce carbon emissions by 80% of 1990 levels by 2050.

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## Design for Change

[www.dfcworld.com/SITE](http://www.dfcworld.com/SITE)

The [Design for Change](#) movement has simplified the design-thinking process to help students to be aware of the world around them, enabled with the knowledge and skills to take action, and empowered to design a more desirable and sustainable future, starting today. Their initiative is open-source, accessible, adaptable, and replicable - as well as fully aligned with the Sustainable Development Goals.

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## Earth Day Network

<https://www.earthday.org/take-action-now/>

Earth Day 2019: [Protect Our Species Toolkit](#)

Earth Day 2018: [End Plastic Pollution Toolkit](#)

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## Earthwatch

<https://earthwatch.org/>

Earthwatch connects people with scientists worldwide to conduct environmental research and empowers them with the knowledge they need to conserve the planet. Explore their resources for

[Teachers](#) | [Students](#) | [Expeditions](#) | [Student Group Expeditions](#) | [Teacher Fellowships](#) | [Student Fellowships](#)

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## Eco Schools

[www.eco-schools.org.uk/](http://www.eco-schools.org.uk/)

For over 25 years [Eco-Schools](#) has been empowering children to drive change and improve their environmental awareness through the simple Seven-Step framework in order to achieve the international Eco-Schools Green Flag.

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## Environmental Charter Schools

<https://ecsonline.org/>

Their [Green Ambassadors Institute](#) is a learning lab that offers professional development for educators and organisations looking to implement hands-on sustainable education. Students work with local organisations to make local food, water, energy, and waste systems more sustainable. Their modular [Green Ambassador's Curriculum](#) helps support and inspire middle and high school teachers to incorporate sustainable community-connected learning into any subject.

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## Ernest Cook Trust

<http://ernestcooktrust.org.uk/>

Rooted in the conservation and management of the countryside, the Trust actively encourages children and young people to learn from the land through hands-on [outdoor learning opportunities](#) on its estates and by offering grants.

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## Farm Urban

<https://farmurban.co.uk/>

Farm Urban links scientific research with local food production to test the most efficient ways to grow food in urban environments, focussing primarily on aquaponics. They work alongside schools, allotment owners, residents' associations, hospitals and universities to develop programs and education around sustainable urban living.

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## Forest Schools

[www.forestschoollassociation.org/](http://www.forestschoollassociation.org/)

[Forest Schools](#) offer a unique, natural approach to learning where students can explore and experience the natural world for themselves. This combination of freedom and responsibility is beneficial to all children - helping to build confidence, self-esteem, and a positive attitude. Check out the Foundation for Environmental Education's guide for [Using nature as a classroom](#).

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## Green Schools Alliance

<https://www.greenschoolsalliance.org/home>

Green Schools Alliance is an effort by primary and secondary schools worldwide to address climate change and conservation challenges by creating a peer-to-peer network of member schools committed to reducing their greenhouse gas emissions and accelerating the implementation of sustainable solutions.

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## Green Schools Project

<https://www.greenschoolsproject.org.uk/>

[Green Schools Project](#) supports forward thinking schools across the UK to get students to lead whole school projects that improve their local and wider environment. The programme enables students to build skills, helps the school to save money, and develops sustainability-minded young citizens.

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## Greening Schoolyards

<https://www.greenschoolyards.org/>

Green Schoolyards seeks to transform asphalt-covered school grounds into park-like green spaces that improve children's well-being, learning, and play while contributing to the ecological health and resilience of our cities. Check out their [activities and guides](#).

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## GROW

<https://www.wearegrow.org/>

GROW works in schools and communities to promote mental well-being, physical health and a more hands-on relationship with the natural world.

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## Learning Outside the Classroom Manifesto

[www.lotc.org.uk](http://www.lotc.org.uk)

The Council for Learning Outside the Classroom (LOtC) believes that every child should be given the opportunity to experience life and lessons beyond the classroom walls as a regular part of growing up. Check out all of their [resources](#) and explore their free guides.

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## Learning through Landscapes

[www.ltl.org.uk](http://www.ltl.org.uk)

Learning through Landscapes helps children and young people to connect with nature, become more active, learn outdoors and have fun. They work to transform school grounds and teacher training and help schools and early years groups make the most of their outdoor spaces for play and learning. Their [free outdoor learning ideas and outdoor lesson plans](#) are ideal for curricular led outdoor learning or forest school type activities.

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## National Geographic

[kids.nationalgeographic.co.uk](https://kids.nationalgeographic.co.uk)

[www.nationalgeographic.org/education/classroom-resources/](https://www.nationalgeographic.org/education/classroom-resources/)

The National Geographic Society uses the power of science, exploration, education, and storytelling to illuminate and protect the wonder of our world. Discover their [resources for learning at home](#), [Classroom Resources](#), and [School-Based Environmental Service Learning](#) project ideas.

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## Roots and Shoots

[www.rootnsnshoots.org.uk](https://www.rootnsnshoots.org.uk)

Jane Goodall's Roots & Shoots works to empower young people with the inspiration and tools to make a difference – for people, animals and the environment. Explore their [free resources and activities](#) for teachers.

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## Royal Forestry Society

<https://www.rfs.org.uk/>

The Royal Forestry Society (RFS) promotes wise management of woods in England, Wales and Northern Ireland through education and knowledge-sharing. Discover their [Teaching Trees](#) curriculum and [Forestry Knowledge Hub](#).

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## Royal Horticultural Society

<https://www.rhs.org.uk/education-learning>

The RHS aims to inspire a passion for gardening and growing plants, promote the value of gardens, demonstrate how gardening is good for us and explain the vital role that plants play.

Explore the [digital collections](#), download your [free butterfly gardening guide](#), apply for the [RHS Level Qualifications](#) and browse other [courses and workshops](#).

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## Stanford University

<https://earth.stanford.edu/climate-change-ed/curriculum>

Stanford University's [Climate change curriculum](#) integrates concepts from the earth, life, and physical sciences as well as the most current data on climate systems to help students understand the phenomena of climate change, the justification for these phenomena, and why these phenomena are both scientifically and socially important.

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## The Outward Bound Trust

[www.outwardbound.org.uk/](https://www.outwardbound.org.uk/)

[Outward Bound](#) helps young people to defy limitations through learning and adventures in the wild. Through outdoor explorations, they develop the attitudes, skills and behaviours young people need to make positive changes in their lives: learning how to change their perspective, believing in themselves and never giving up. Explore their [education resources](#).

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## Natural History Museum

<https://www.nhm.ac.uk/>

The Natural History Museum in London exhibits a vast range of specimens from various segments of natural history. Their many exhibitions can help you find answers to your big nature questions, and uncover the history of life on Earth, from the smallest insects to the largest mammals.

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## The Pod – EDF’s energy programme for greener schools

[www.jointhepod.org](http://www.jointhepod.org)

The Pod is an interactive website for teachers and Eco-Coordinator that provides high quality cross curricular teachings resources, activities and games. Check out their ‘Understanding energy, science & sustainability’ [curriculum-linked resources](#) for 4-16 year olds across science, geography, maths and a range of other subjects.

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## The Wildlife Trusts

[www.wildlifetrusts.org/](http://www.wildlifetrusts.org/)

For more than a century The Wildlife Trusts have been saving wildlife and wild places, increasing people’s awareness and understanding of the natural world, and deepening people’s relationship with it. Together they care for 98,500 hectares of ancient woodlands, lakes, meadows, beaches, moors, islands, and estuaries.

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## Think Earth Foundation

<https://thinkearth.org/>

Think Earth helps communities create and maintain a sustainable environment through education. They oversee environmental projects and partnerships with business, education, government, and public sectors. Explore their [Environmental Education](#) curriculum.

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## Tokes Farm

[www.tokesfarm.org/](http://www.tokesfarm.org/)

Tokes Farm Education is a land-based learning centre and family-run farm in Wiltshire. Activities include a unique blend of animal and farm work, forest school and craft sessions as well as storytelling and creative play.

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## The WILD network: Rewilding childhood

<https://www.thewildnetwork.com/>

[The Wild Network](#) is a new, wilder way of organising and a different way of taking action, collectively. They offer [creative storytelling](#), [community engagement](#), and [innovation labs](#). Be sure to explore their [Wild Time Learning](#) activities tagged against curriculum learning topics and key learning stages.

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## Woodland Trust

The Woodland Trust works to create, protect, and restore the UK’s native woodland heritage. Explore their [resource packs](#).

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## Unesco

<https://en.unesco.org/>

UNESCO has an important track record in advancing ecological sciences through pioneering work on ecosystems, biosphere reserves, capacity building, scientific assessments and policy briefs to assist decision-makers in managing natural resources sustainably. Check out their [prototype environmental education curriculum for middle school](#), resources for [climate change in the classroom](#), and their [environmental education activities for primary schools](#).

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## World Wildlife Foundation (WWF)

[www.wwf.org.uk/](http://www.wwf.org.uk/)

For over 30 years, the World Wildlife Foundation has been working with teachers and schools to provide a wide range of topical classroom resources and real-world activities to engage and inspire young people. Discover their [Green Ambassadors](#) flagship education programme, browse their curriculum-linked [Climate Change resources](#), download their [Foundational Climate Change Curriculum for Educators](#), use their [Shaping Our Future](#) lesson plans and [Learn to Love Nature](#) themed content, and attend their ‘[Education for a Sustainable Planet](#)’ online course.

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## Who have we missed?

Do you know an organisation, institution, or resources that should be on this list? If so, get in touch with us at [lhay@edge.co.uk](mailto:lhay@edge.co.uk)



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