

Environmental Education



Teaching the Future



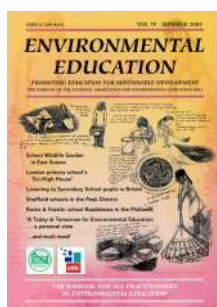
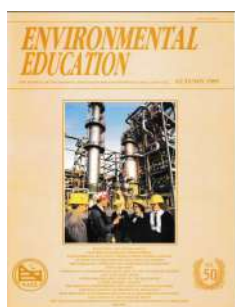
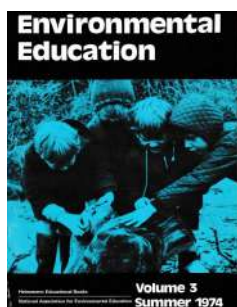
National Association for Environmental Education (UK)

Promoting environmental education, 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.

NAEE started life in 1960 as the National Rural Studies Association, changing its name and emphasis in 1971.

Since then, the Association has continued to support a wide range of professional educators to help them improve the quality of their teaching and their students' learning, in relation to environmental and sustainability issues.

In 2021, we celebrated our 50th anniversary, which included a new Wikipedia page, a new logo and a 50th anniversary edition of our journal. As part of our celebration, all the back copies of *Environmental Education* were digitised. Volumes 1 to 132 can be freely accessed here: tinyurl.com/2p8fsv6a. The most recent copies can also be found here: naee.org.uk/ee-journal.



NAEE is a Charitable Incorporated Organisation [Charity No. 1166502] that is run by its members and volunteers who care passionately about environmental education and education for sustainable development. Our charitable object is to provide a public benefit by advancing environmental education within early years settings, primary and secondary schools, and institutions responsible for teacher education within the UK and elsewhere. Teachers are encouraged to become members and also welcome to submit articles for this journal. For more information, contact info@naee.org.uk.

Join NAEE. Members receive these benefits:

- Environmental Education journal 3 times a year
- Resources and information for teachers and educators
- Network with outdoor and environmental education specialists

Write for us:

We are always on the lookout for examples of adults working with children and young people in nature. For further information, email info@naee.org.uk.

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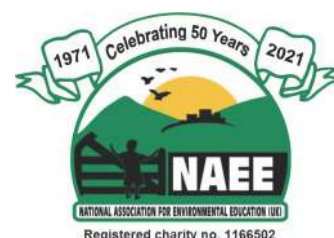
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TEACH THE FUTURE



STUDENTS
ORGANISING FOR
SUSTAINABILITY
UNITED KINGDOM



Cover images: Zamzam Ibrahim, (then) NUS president, speaks at Teach the Future's parliamentary reception, February 2020 (credit: Teach the Future); Students hold a Teach the Future banner during a 2019 school climate strike (credit: GETTY IMAGES/NURPHOTO).

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Editorial

Emma de Saram



I am delighted and honoured to welcome you to this first ever completely youth-led edition of the NAEF journal. The articles featured here have been written entirely by student staff and young volunteers involved in campaigns and projects supported by SOS-UK (Students Organising for Sustainability), where I serve as a student trustee.

SOS-UK seeks to **progress sustainability and climate justice through the transformation of our education system**. We want to see all teaching and learning repurposed and redesigned to advance the wellbeing of all people and our planet. We imagine an education system in which all students are supported to develop their knowledge, skills, and values to shape and transform their communities for sustainability and climate justice.

We do this by focusing on three things:

- supporting individuals to develop skills and attributes for sustainability;
- changing our institutions to integrate sustainability through everything they do;
- shaping wider society and policy through the power of youth leadership, campaigning, and lobbying.

In this edition, you will hear from a diverse range of youth voices from across our projects and campaigns. I hope, in reading this, you will feel inspired by their vision for a reformed education system, energised by the progress they have already achieved, and heartened by the tangible impact they are having through the projects they lead.

It is an honour to serve as a student trustee at SOS-UK, where half of the trustees are also young people like myself. Our work is delivered by 18 student staff, 41 core staff, and countless volunteers. Our executive director, Jamie Agombar, often parallels our work to the Tour de France van that follows the riders. When they fall over, we put them back on the bike, we keep them topped up with snacks and water. The core staff team are the support crew behind the students, helping them to extend the reach and impact of their campaigns, support with professional skills like press and fundraising, and encourage their personal and professional development along the way.

In the coming months, we will be taking a team of youth delegates to COP28 to lobby for more ambitious policy commitments for climate education; supporting the two new Department for Education Youth Focal Points to feed into the implementation and evaluation of the DfE 'Sustainability and Climate Change Strategy' and supporting secondary school students to meet with parliamentary candidates in the lead-up to the next general election. I am so proud that our young people are at the heart of decision making at this critical time in our collective history.

If you would like to work with or support us in any way, please do get in touch with our team. We hope you really enjoy the articles! 🌱

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Emma (she/her) is 22 years old, SOS-UK Student Trustee and President of Exeter Students' Guild.

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From the NAEF President

Professor Justin Dillon



This really is a special issue of Environmental Education – as Emma de Saram says, it's the first ever completely youth-led edition of the journal. Definitions of 'youth' vary – the UN says it is anyone between 15 and 24. That's around 1.2

billion people worldwide – close to 16 per cent of the global population, a proportion that is growing with every year. However, I think we at NAEF would tend to see youth as starting much earlier than 15, which is a rather arbitrary age to choose.

The recent history of environmentalism has seen the voices of young people increasingly being heard and listened to. Ten years ago, 15-year-old Esha Marwaha from Hounslow, West London, started a petition that was signed by more than 12,000 people. She was outraged by proposed changes to the key stage 3 (lower high school) geography curriculum for English schools. In the end, the government backed down as modernisers within the Conservative Party realised that they needed to

adopt more green policies to be electable. Since then, school strikes and other protests have raised the profile and the impact of young people disillusioned with the glacial pace of curriculum reform in response to the climate and environmental emergency.

When I talk with teachers during residential fieldwork, it is common to hear them say of their students, 'I had no idea they could do that'. We have, in the past, tended to underestimate the capacity of young people, despite the evidence in front of our eyes. But things are changing, and the articles in this issue speak to the depths of understanding and the wholehearted commitment of the authors and the people with whom they work. However, if things don't continue to improve, subsequent generations might not believe that change is possible. Which is why it is essential that all generations continue to push for urgent, informed action by those people who we elect to serve us.

Thank you Emma and all your co-authors – this is yet another wonderful example of what can be done by young people. 🌱

From the NAEF Chair Professor William Scott



This is my last column as Chair of the NAEF Trustee Board, as my 6-year term of office as a trustee came to an end at the 2023 AGM. It has, as they say, been a privilege to be entrusted with this role, especially when I think back to illustrious figures who've had that role over the past 52 years.

My chairing began in 2016 with the move from the previous charitable structure that we had had for very many years to our current form as a CIO – a charitable incorporated organisation – the modern legal framework that the Charity Commission prefers. It's no doubt an exaggeration, but it did seem as though we had to completely reinvent ourselves in order to do this. I recall being surprised, for example, that we needed new bank accounts. The decision to move to a CIO resulted from an internal review of NAEF's structure and activities that was carried out in 2014/15. This made over 50 recommendations, almost all of which were enacted. The key point had been the need for a modern constitution. The new CIO brought new budgeting and financial methods, a clearer separation between management and governance, much greater external input into strategic thinking, clear leadership, a new and actively involved President, and a completely new website. Aspects of the old charity that carried on relatively unchanged were our splendid journal and, thanks to the great efforts of Sue Fenoughty, our well-regarded Kenrick Bursary scheme.

Over the past 6 years, the key figures in the management of the Association have been pretty constant with Nina Hatch as Executive Director, Elsa Lee as Deputy Director, Sue Shanks as Treasurer, and Juliette Green, Henricus Peters, Alona Sheridan (and Elsa) doing sterling work producing three journals a year. I'm pleased to take this opportunity to thank them

all, and the very many other volunteers for all that they have done – especially to those who were part of NAEF before I came along, and who were responsible for getting us through some hard times. And, finally, a special word for Carolina Salter who has been our very able administrator for the last few years.

Looking at the elected members of the Trustee Board in 2016 and in late 2023 shows a total change of membership with the new Board being not only much more representative of wider UK environmental (sustainability) education than before, but also a good bit younger. As I leave the Board in good hands, I think it looks well set to face the future with confidence and make a strong contribution.

It was particularly good to be Chair during our 50th anniversary celebrations in 2021 and to be able to look back and see how we had stood on the shoulders of giants. I continue to think that getting to 50 was a tremendous achievement, and it's very clear that the history of NAEF is the history of UK environmental education. It was particularly good to be able to bring this history out of bookshelves into the light of day with the digitisation of all our journals, which are available to read and download on our website. This is an invaluable source of what was being done by teachers and students over 50 years. Still lurking in our dusty archives in the University of Bath are 50 years of newsletters and reports which tell the environmental education policy story as it ebbed and flowed (mostly ebbed it has to be said) as governments blew hot and cold about it all.

It's an invidious task writing a piece like this because of all the detail (and people) you have to miss out, so I hope I'll be forgiven. I wish the Association all the very best for its next years under what I know is sound leadership. I am not disappearing completely and will still be involved, but in a different way. 🌱

Teach the Future – what young people want for education Charlie Clift



What is Teach the Future?

Education in the UK is failing students by not preparing us to face the effects of climate change or helping us to understand the causes and solutions. Teach the Future is a campaign led by students to change this. As education in the UK is a

devolved matter, there are specific campaign branches in Scotland, Wales, England and Northern Ireland with specific nation asks.

Currently, the climate crisis is limited to individual, siloed topics in a couple of subjects (mainly optional) and we've found that often where it is taught, it's not done to a high enough standard and never focuses on the solutions. We want mandatory, integrated and assessed climate education oriented around solutions and actions. It should also be embedded throughout all subjects across the curriculum, to fully prepare students for the changing world.

Our own research¹ has found that only 4% of students feel they know a lot about the climate crisis, and 75% of teachers feel that they haven't received adequate training to educate students about the climate crisis.

Why I got involved in Teach the Future

I personally got involved in Teach the Future to combat my anxiety and frustration that not enough was being done to address the climate and ecological crises and prepare students for a changing world. It felt wrong to me that the issue of climate change would pop-up in small topics within Science and Geography, and then we'd simply move on, without properly addressing nuances and empowering us through solutions-centred content.

Since I joined, I've had the opportunity to meet with many politicians, including Ed Milliband and Bridget Philipson, and have learnt loads helping to gather support for our bill and progress it through parliament. I've really enjoyed working with so many other like-minded students towards such an important goal, having lots of fun along the way.



Charlie and fellow Teach the Future volunteer, Scarlett, meeting with Shadow Secretary of State for Education, Bridget Phillipson.

Teach the Future's plans for this year

We have lots of exciting plans coming up over the next few months as we begin to gather momentum for the campaign ahead of the general election, pushing parliamentary candidates to commit to bolder targets on climate education. We hope to run actions and events across the country focussed on gathering support and encouraging people to meet with their parliamentary candidates to get involved.

We'll also be securing funding to expand our 'tracked changes' project to include all primary and core A-level subjects, on top of secondary education, following the great enthusiasm and interest for these resources. Follow us on our social media pages for more of these exciting updates!



Teach the Future protesting outside the Department for Education, the result of which led to the DfE's strategy being launched.

For me, quality, integrated climate education will play an essential role in a just transition to net-zero: we must empower future generations to make change, and teach students about the crisis that will affect them in every area of their lives. We need a workforce trained in green skills and people who are able to adapt to the changing world and work to improve it.

What we have achieved

We have made great strides towards improving this. We introduced our Climate Education Bill² (the first parliamentary bill written by young people) into Parliament and were key influencers in the publication of the Department for Education's first ever Sustainability and Climate Change Strategy³. We've held parliamentary receptions in England, Scotland and Wales, and have met with countless Members of Parliament, Members of Senedd, and Members of Scottish Parliament.

We are further pushing for this change through actions like our 'tracked changes' project⁴, which demonstrates how climate education can be implemented within the existing guidelines of the English national curriculum.

What I have been doing at my own school

As a result of my work at Teach the Future, I've also had the opportunity, along with other students and a supportive headteacher, to initiate positive change within my own school. We're currently working with the subject leads in Science and Geography, working to map out and improve our climate and ecological crisis coverage. We will use these subjects as models, branching out to the rest of the subjects at school. Throughout the process, Teach the Future's 'tracked changes' project, Curriculum for a Changing Climate, which provides a detailed map of where climate could be fitted into existing secondary curricula, has proved invaluable in guiding how and where coverage can be improved.

Excitingly, our school sustainability lead also met with others in my school's Trust, and have all agreed to work on this, with a deadline of 2025 to have addressed this issue. We will share our strategy with the school Trust and other departments, hopefully improving climate education for all the schools in the Trust across Oxfordshire.

Why other students should join me as a volunteer

If you're a young person, or know of a passionate climate activist, join us as a volunteer! We're a group of fun, open and like-minded young people and there is opportunity to learn lots of new things, from social media and graphic design to more political work engaging Parliament. There will also be lots of opportunities to take part in and help organise exciting actions to boost the campaign ahead of the upcoming election.




Students hold a Teach the Future banner before the campaigns Westminster parliamentary reception in February 2020.

At Teach the Future, we believe strongly in a culture with no hierarchy, so, whilst there are student and full-time staff on-hand for support, it is ultimately volunteers who make the decisions on campaign priorities. We are fully

remote, working online, and you have complete freedom and flexibility over what you get involved in, with no expectation to work a certain number of hours or attend all online meetings. Volunteering is open to young people aged 13 to 26 across the UK — visit the volunteering page⁵ on our website to find out more and sign up.

Help fund us!

We can't achieve all this vital work without your help. Please consider donating to the campaign⁶ to fund the next stage of our 'tracked changes' project which will look at the primary curriculum, as well as allowing us to mobilise young people and their parents, putting vital pressure on politicians across the UK, in the run up to the next general election. 

Charlie is a 15-year-old from Oxfordshire and is National Organiser at Teach the Future. Charlie has been a volunteer and student staff member with Teach the Future over the past year and is a loud advocate for climate education in his own school and nationally. He is currently studying for his GCSEs and his favourite subject is Languages.

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Taking action into our own hands: how we created Teach the Teacher Jodie Bailey-Ho



It's 2021. I'm in school studying for my A Levels, hoping to go on to study environmental science at university, when I receive an email from my science teacher with links to articles detailing why climate change isn't anything to worry about. I mean, I can't really blame

them — the climate crisis is hard to grasp at the best of times, and with the vast amount of misinformation online it's perhaps unsurprising they got sucked down that particular rabbit hole. Nevertheless, as a student I was disappointed to see those who should be preparing me for my future, denying the greatest risk we face.

After this incident I remember sitting down on a call with another young climate activist, and two environmental CEOs, including SOS-UK's own Jamie Agombar. In that meeting, with my science teacher's words in my head, I told them that I wish I could teach my teacher about climate change. I didn't think anything special had happened in that moment, but it was the start of us stumbling across a wider problem. We found, through Teach the Future's teacher research, that 70% of teachers don't feel adequately trained to teach their students about the climate crisis — and it was the moment that led to the creation of Teach the Teacher!


Teach the Teacher is a youth-led campaign aiming to increase climate awareness in schools, by giving young people the tools, support and training to present an hour-long lesson on climate change to their teachers.

The Department for Education recognises that every job can be a green job, but it won't commit to compulsory, fully resourced teacher training. If teachers don't know how to teach about climate change, and how to integrate it into all aspects of the classroom, then how will young people grow up understanding the urgency of the situation and what they can do to play their part? That's the knowledge gap we want Teach the Teacher to address. Just like I ended up doing with my science teacher, we want students across the UK to go into their schools and give their educators a lesson on climate change and the reality of growing up as a young person. The sessions explore the science of climate change, climate justice and eco-anxiety, as well as young people's experiences. They aim to build a space for working together — students and teachers — to learn and understand each other, towards a shared goal of better climate education.



Jodie (left) and another youth activist, delivering a Teach the Teacher session at COP26.

A big part of Teach the Teacher for me is empowering young people in secondary schools to believe they can be part of the solution to the climate crisis. Young people are constantly told we'll have to fix it, but we're never given a seat at the table, until now!

Since 2021 we've run Teach the Teacher sessions worldwide, even taking it to COP26 in 2021 to reach education ministers and stakeholders across the UK. But it's not enough — every teacher needs to have the confidence to start talking about climate change in their classrooms. Climate change is going to affect us all and so everyone needs to be receiving a climate education. And although we don't want young people to have to shoulder the burden of climate education, we're happy to be bringing them into the conversation as equals with their teachers. 

Jodie is a 19-year-old undergraduate environmental science student at the University of Manchester, and one of the co-founders of Teach the Teacher. Since 2019, she has been involved with a number of SOS-UK projects (as well as being awarded the Jack Petchey Environmental Award and named one of CIWEM's 'Climate Sheroes'). She hopes that young people will feel empowered to create a lasting impact through Teach the Teacher, and that the project will inspire them to go into the world believing they can change it for the better.

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How student-led climate action plans create change

Talia Hardie



In the past decade, the UK has introduced numerous policies that seek to address climate change and associated issues; from a net zero target to a full Green Industrial Revolution, the plans touch upon a wide range of society's pillars and functions⁷. One such initiative comes from the Department for Education (DfE),

who published their first Sustainability and Climate Change Strategy in 2022, which, among other commitments, asks all UK schools to have a Climate Action Plan (CAP) by 2025⁸.

However, the initial lack of detail and support given to schools left them wondering, just as you may be now, what exactly *is* a CAP?

A Climate Action Plan requires schools to reduce their climate impact whilst renovating their approach to climate education, an outline which is decidedly vague. Organisations such as SOS-UK have thus taken it upon themselves to support and assist schools in their creation of these CAPs, providing the detail and guidance missing from the original brief. The nondescript nature of the DfE's vision, however, can also be seen as a strength of the project, encouraging flexibility, specificity and a sense of ownership over the plan within each school community to allow for the place-based tailoring that is often the basis for effective climate solutions.

What are the potential impacts of the CAPs project?

The school estate

Currently, UK schools' most significant contributions to climate change are through energy consumption, transportation, and waste generation^{9,10}. A successful CAP should effectively address each of these areas with small scale mitigation projects, such as the introduction of a robust recycling system, or the adoption of energy efficient technologies. Schools will also be encouraged to take advantage of any local existing solutions, like community composting or gardening projects. This should reduce the climate impact and general environmental degradation that schools contribute to their local area. However, it is difficult to assess how significant this impact actually is. In the government's 2021 document of UK greenhouse gas emission figures schools were included in the public sector buildings category, which contributes 5.6% of UK greenhouse gas emissions¹¹. Yet, the fact that education emissions are not the largest contributor to national greenhouse gas emissions should not undermine the importance of a CAPs project. Instead, this highlights the importance of the next fold in a CAPs fan: the impact of climate education on students.

Inside the classroom

A CAP should equip students with a detailed understanding of climate change, exploring the local contexts and outlining the challenges that will be faced and what possible solutions are. It should expose students to practical learning opportunities and instil a sense of stewardship towards their school environment.

Within our project, students will be granted significant independence and autonomy over what their CAP looks like, giving them the opportunity to proactively engage

with climate change solutions and encouraging them to take pride in doing so. Thorough climate education is an investment in our shared future, educating and empowering students to become the catalysts of change. Thus, as we reduce the climate impact of a school, we greatly increase the future impact of its students.



Students walking through a wood, exploring nature.

Where is the project now?

At SOS-UK we began rolling out the initial assemblies and workshops in schools this September. Having spent the summer in the planning and outreach phase, we have created a support programme for schools delivering CAPs which we hope embodies the plethora of potential benefits outlined above. It seems clear that the introduction of this project will be more than welcomed as recent research revealed that '72% of UK 14-18 year olds would welcome the opportunity to learn more about climate change in school'¹². So, with a youth clamouring for adequate climate education and the opportunity to engage with meaningful climate actions, CAPs take on an even greater significance: providing young people with the means through which they can have a positive impact on their environment and bringing them hope for people and planet.

After all, perhaps the only guarantee of our future is that it will be one of change, where the quality of our climate education will be the decider of whether we create a world of people bearing with climate change or one of people creating a better world. 🌱

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Talia joined SOS-UK in 2023 as a Climate Action Plan Coordinator, working to engage and empower students under the DfE's 2025 Sustainability & Climate Change Strategy. Currently studying Geography at Cambridge University, they are passionate about sustainability, writing and studying innovative solutions to climate vulnerability. In the future, Talia hopes to pursue academia and activism in tandem, using research to make a positive change.

More information: sos-uk.org/project/green-schools-revolution#3

A curriculum for a changing climate

Liv Marshall and Niamh Crisp-O'Brien interview Elena Lengthorn

Teach the Future is a youth-led campaign for better climate education. In this piece, two school students and volunteers at Teach the Future, Liv and Niamh, interview Elena Lengthorn, Senior Lecturer Teacher Education and founder of the Education for Sustainable Futures Special Interest Group at the University of Worcester, about the importance of curriculum change and how we can do it.



Liv: At Teach the Future (TTF), we want to see our education system repurposed around the climate emergency and ecological crisis. How would you like to see formal education transformed, and why?

Elena: There is an urgent and dire need for our society to recognise the urgency of our climate crisis and ecological breakdown. As a whole, we are failing to acknowledge the reality that we, especially our children, are facing not just in the future but now in the present. The transformation will look different for educators in different fields and will cover a variety of different areas, with some focusing on issues such as caring for the economy and others focusing on changing social values. As for the why; if we don't have the knowledge, then we won't take action. Every tenth of a degree that we can avoid global heating will prevent suffering.

Niamh: What support and resources do teachers and educators need to feel confident and prepared to deliver this change?

Elena: It's important to acknowledge that there's a spectrum of confidence amongst teachers when it comes to climate change, with many having a lack of confidence potentially due to a lack of training surrounding the topic and how best to teach about it. That lack of knowledge and training leads to anxiety. Climate education could be included in all aspects of training for educators, from pre to in-service, but it needs to be specialised for the age range of pupils the educators work with, although there is the potential to include knowledge and an exploration of core values and their meanings in a generic way. It's vital to remember that alongside the climate crisis we need to discuss the ecological emergency, these two topics come hand-in-hand and education on both is vital to preparing students for their futures.

Liv: Teach the Future has been showing what a new curriculum for England could look like by embedding climate and sustainability into subjects across the national curriculum for KS3 and KS4. We are grateful for your support towards our 'tracked changes' project; what has encouraged you to engage with it and why do you think it is important?

Elena: As a geography educator, the burden on geography teachers is tangible. The climate emergency is a motivation for some people to become geography teachers as they feel responsible for teaching on the

climate crisis. I was recently speaking to a primary geography teacher who shared how they had read a newspaper headline in the 1980s: 'climate change, be afraid'. This teacher has a sense of guilt as they feel like nothing very much has changed since then. However, teaching about the climate and ecological crisis should be everybody's responsibility. The 'tracked changes' project shows how this is possible and provides opportunities to embed it in all subjects. It isn't reliant on a change of government or a big re-write, it is ready to go and accessible. When teachers are overworked, have broad curriculums and are overburdened already, this enables them to use existing frameworks to deliver the content. The educators working most closely with climate and ecological topics may also be impacted psychologically, and have their own level of grief, anxiety and fear. I think of the 'tracked changes' project as an antidote, of sorts, to this anxiety by identifying ways that we can already be threading these urgent topics into our classroom work.

Niamh: We know that some teachers are already using the new curriculum in the classroom. As well as teachers and students, do you think others can benefit from using the new curriculum guidance and what potential do you see for the project going forward?

Elena: I am excited to hear the consideration to expand the 'tracked changes' project into the primary curriculum. I think there is also opportunity within initial teacher education, for pre-service teachers, so that when they are writing their first ever lesson plans, they have had a climate education induction and are thinking about climate change and sustainability from the beginning. There are opportunities from early years all the way to higher education; 'tracked changes' could be done for all subjects, across all phases of education. There are already some super pockets of work happening relating to this, such as SOS-UK's Responsible Future's programme. Climate education needs to be everywhere and accessible to everyone as this affects everyone, everywhere.

Liv: How could changes to the curriculum support and encourage young people to feel more connected to nature?

Elena: This is essential! We live in one of the most nature-depleted countries in the world and the Department for Education's (DfE) Sustainability and Climate Change Strategy aims to combat this with the National Education Nature Park Plan, a network of outdoor spaces in education settings across England, which equates to the same size area as green public spaces (roughly twice the size of Birmingham), managed by young people. Pupils will map, monitor and enhance site biodiversity through the development of green and digital skills, as well as improving their own wellbeing. This should help to encourage schools to take ownership of their grounds, building on the initiatives of eco-schools and other organisations.

Curriculum for a Changing Climate: A Tracked Changes Review of the Curriculum



TEACH THE FUTURE

The front cover of the 'tracked changes' project report. You can see the full report at teachthefuture.uk/tracked-changes-project.

We must remember to support pre- and in-service educators with their own nature knowledge and connectedness in order that they are able to support their pupils. I would like to see the DfE Core Content Framework, the outline curriculum for Initial Teacher Education, include strands on learning outside the classroom and opportunities for nature connectedness.

The proposed Natural History GCSE could provide a direct opportunity for young people to be more connected to nature in their own area through the study of interconnected flora and fauna in local settings.

Niamh: Changing the curriculum is just part of the transformation to the education system that we need to enable young people to feel prepared for the

future ahead of them. What other opportunities do you see for change, and what are educators calling for?

Elena: Educators' specialties vary so it is difficult to speak on behalf of educators as a whole; there is a range of feelings, as well as a range of opportunities.

As much as we want to prepare children for the future, we need to consider teachers who are already feeling unprepared for their own future and having existential crises for their own children and their own lives.

Technology could play a major role in improving the education system. For example, we saw many useful adaptations to teaching and assessment during the covid epidemic that could continue to be harnessed.

But we also need to think beyond curriculum, schools need to be thinking urgently about adaptations to processes and places. We should be thinking about student transport, green spaces and shade for children and food footprint. Many solutions are available but taking them can feel difficult when there are so many competing priorities in education! The 'tracked changes' project helps to make the curriculum changes easy and accessible, and says we can do it now! 🌱

Niamh (she/they) is a 16 year old climate activist focused on climate education and sustainability within schools. She has been involved in the climate movement since she was 11 years old, and she started volunteering for Teach the Future in early 2022.

Liv (they/them) is a 16 year old climate activist, passionate about the urgent need for better climate education. Liv has been a volunteer with Teach the Future since October 2022.

Elena is Senior Lecturer in Teacher Education at the University of Worcester and founder of the Education for Sustainable Futures Special Interest Group at the University of Worcester. She is also Co-chair of Our Shared World and a long-standing advocate for sustainability education.

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Wilding Schools: A crucial element of a sustainable nation

Nico King

Importance of schools in wilding the UK



In 2022, the Department for Education (DfE) set out its Climate Change & Sustainability Strategy for how schools will become more sustainable and their role in future-proofing the country. A key point in this strategy is the creation of a National Education Nature Park. Treating school grounds as Nature Parks, and wilding them

accordingly, will make significant headway towards meeting the UK Government's commitment to protect 30% of UK land for nature by 2030 (known as 30x30).

According to the Wildlife and Countryside Link, as little as 8% of land in England is currently statutorily designated for the protection of nature, and only 3% can be described as reliably specifically protected for nature¹³. The inclusion of schools will therefore be fundamental in reaching the 30x30 target.

Aside from policies and legislation, designating schools as part of a Nature Park is a step closer to equalising access to nature among the UK population. Citizens living and working in rural areas have better access to nature than those living in urban spaces but even within urban spaces, there is a disparity. Areas with a lower socio-economic background provide significantly less access to nature than their higher socio-economic counterparts due to a lack of public parks, private garden space and traditional boulevards. By holding all schools to the standards of a Nature Park, access to nature will be less of a postcode lottery and less determined by socio-economic background.

How schools can become Wilding Schools

Actions to wild school grounds and create a patchwork Nature Park across the country will take many forms. In some schools, sections of lawns could be left to grow unhindered by mowing or weeding, allowing miniature wildflower meadows to develop – the perfect home for many insects and small mammals.



A wildflower meadow at Goldsmiths University, an example of wilding an educational estate.

In others, it could mean growing climber plants along the sides of school buildings or replacing concrete with grass, trees and other native plants. Schools with limited ground space may focus on window gardens, grassed roofs, and hedgerows; while those with more space can line outdoor walkways with trees or allow existing trees to grow taller and wider, carving out new habitats for local birds. Whatever the restrictions or requirements, there are many ways, large and small, to make each school a Wilding School.

Impacts of a Wilding School

Improving access to nature

For many children, school is one of the most consistent locations in their life – attending it five days a week, thirty-nine weeks a year. Increasing the quality and quantity of green spaces on school grounds will ensure students have regular, close contact with nature. The importance of Wilding Schools is highlighted in urban communities and those with a higher index of multiple deprivation (a compilation of indicators that includes income, employment and health, allowing comparison between locations). Wilding Schools in these areas could provide many students with their only regular time in nature. Schools often also act as a community hub for the local people and organisations and so by wilding these important spaces, we can improve not only student and staff access to nature, but access for the whole community.

Improving physical health

The impacts of Wilding Schools also goes beyond supporting the natural environment and the community's appreciation of nature. Children who grow up in greener neighbourhoods are often less depressed, stressed, aggressive and anxious, and are generally healthier and happier¹⁴. For example, those who spend more time in natural light, rather than artificial light, are at a lower risk of developing Seasonal Affective Disorder¹⁵.

Furthermore, interacting with nature can be therapeutic for many people regardless of mental ill health¹⁶. Two distinct tests^{17, 18} show that being in nature correlates with better cognitive performance, including academic performance and attention restoration¹⁹. Though the links between access to nature and improved mental health are not fully understood, psychologists have found that being around wildlife, even in urban areas, increases connectedness with nature which in turn is associated with better psychological well being, positive feelings and vitality²⁰.

In addition to psychological wellbeing and performance, nature has multiple positive impacts on physical health. Studies show that the presence of trees and other vegetation reduces temperatures, decreasing the chance of heat related illnesses²¹. Vegetation also acts as a barrier between air pollution and humans by absorbing carbon dioxide from the atmosphere and picking up particulates which are damaging to the lungs, leading to significantly lower childhood asthma rates in areas with more street trees²². As well as reducing anxiety, spending time in nature can prevent the associated physical symptoms such as higher stress hormone levels, pulse rates, and blood pressure²³.

Improving curriculum-based opportunities

Clear links can be made between Wilding Schools' grounds and the science curriculum. For example, by using the species diversity measuring techniques, they must learn how to survey the school grounds and monitor the impacts of the school's wilding efforts. Beyond this, links can also be drawn between wilding and other, less obvious subjects. In Design and Technology, students can create bird boxes, and hedgehog feeders for woodwork, or bird feeders in metalwork. Wilding Schools projects and the significance of green spaces can be used as the subject of many different pieces of writing, meeting the English Language curriculum's requirements that students learn how to write effectively for a variety of purposes.

Nico is the Project Co-ordinator for the Wilding Schools Project at SOS-UK and is studying Biological Sciences at the University of Liverpool, with an emphasis on sustainability and biodiversity. They understand the importance of and consistently advocate for the inclusion of environmental context in education from an early age.

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More information: To begin to learn more about the Wilding Schools project, or register your interest, go to: sos-uk.org/project/green-schools-revolution#4

The importance of applied sustainability learning experiences for students

Kedijah Eaves-O'Connor



Applied sustainability learning can often be practiced through the model of a Living Laboratory (or Living Lab^{24, 25}). This kind of project typically aims to foster a partnership among key stakeholders (often crossing disciplinary boundaries) to work on a real-world problem, creating solutions that can be applied and therefore create lasting, real impact.

However, there isn't a one-size-fits-all approach to a Living Lab and fundamentally, they are there to help foster applied learning amongst students and solve real-life challenges.

According to the EAUC (Environmental Association of Universities and Colleges), there are multiple benefits to a Living Lab model of learning:

- A rich practice-based, hands-on learning experience for students that actively develops and improves their professional skills and employability.

- An opportunity for knowledge-transfer for sustainable change. Realistic and practicable research is curated and disseminated to internal and/or external partners to implement and utilise.
- Establishes and strengthens partnerships between academics and internal staff, as well as external partners.

A tangible, working example of a Living Lab is SOS-UK's SHAPE Sustainability Impact Projects, run in partnership with the British Academy. SHAPE refers to Social Sciences, Humanities & the Arts for People, the Economy and the Environment, and the project supports and empowers those who study these subjects to actively contribute to real-world sustainability challenges set out by their institution in interdisciplinary, collaborative teams. Students' and academics' own institutions, as well as the local community, serve as the testbed for their ideas, enabling an understanding of the impact of their field of study in a local and hands-on context.

SHAPE Sustainability Impact Projects has been running for the last 3 academic years, seeing a wide variety of students culminate and create impactful projects that tackle sustainability issues in their local city and community. During the 2022-23 term, 4 institutions took part – Queen Mary University of London, University of Wolverhampton, Nottingham Trent University and University of Strathclyde.

At the virtual project launch in November 2022, staff from each university pitched a sustainability challenge, with students forming interdisciplinary teams to design a project which tackles their assigned challenge. The four challenges covered a wide range of environmental, economic and social sustainability issues including conservation volunteering, mental health and wellbeing, sustainable festivals and community partnership models.

After launching, workshops were facilitated by Students Organising for Sustainability (SOS-UK) and support given from lead staff at each of the four universities, to help students to plan and develop their projects, enabling them to apply their specialist knowledge to find solutions for sustainability challenges, and build an understanding of the relevance and impact of their disciplines in tackling these challenges through applied learning.

Nottingham Trent University's project was delivered in partnership with a local conservation charity, Miner2Major Landscape, to identify and overcome barriers to engagement for young people in volunteering activities. They aimed to develop effective strategies for attracting and retaining younger volunteers in the sector, one of which included a platform for advertising and promoting academic and remote volunteering opportunities at Sherwood Forest.

University of Wolverhampton's project was titled 'Project Future Focus - Mental Health and Wellbeing in Wolverhampton' which aimed to provide support for young people in Wolverhampton by collaborating with local youth and families charity, Base25. The project aimed to identify how to effectively support young people using the service by focussing on areas young people identified as important. The group ran interviews and focus groups with service users, aiming to create a resource for providing ongoing, wide reaching, sustainable support. A website was developed, which focused on mental health, money and forms, social skills, cooking and housekeeping and hobbies.

Queen Mary University of London (QMUL)'s project focused on reducing the environmental impact of the Festival of Communities which takes place each year at Stepney Green Park and QMUL. They aimed to build upon already existing sustainable initiatives such as reducing general waste and raising awareness amongst the local community about how to encourage long term behaviour change. Case studies of festivals already implementing sustainability were used by the students to highlight the importance of making a change, and to show that it can be done successfully.

University of Strathclyde's community partnership project was aiming to foster a deeper connection between the university and local community. The group, with students from creative writing and history courses, curated an exhibition in Townhead Village Hall to display historical research with poems and writing, that immersed visitors in the culture of the area. This created intergenerational dialogue and community spirit by evoking memories of the physical area, specifically encouraging older community members to visit and share stories with university students living in the area. The project has a lasting legacy of accessibility and inclusion, with a focus on creating a space all people can come to and engage with.

Andrew Pettigrew, an English and Creative Writing student from the University of Strathclyde, kindly offered to share his emotionally thought-provoking poem which was shared at the exhibition in Townhead Village:

People Make Townhead by Andrew Pettigrew

People make a community. That is what they say
And it's true. Buildings of stone and brick
Are lifeless shells, hollow husks, without people.
People talk and laugh and dance and sing, breathe
Life into the bones of the town, the stones
Echoing with the heartbeat of their existence, vibrating
With energy, like blood, that keeps it alive.
There is a boy, playing with a football,
His ruffled brown hair, soft as spider webs;
There is a girl, laughing, skipping,
Her eyes are like vibrant stars in her face;
An old man hobbles down the street, his gnarled hands
Clutching a walking stick, and he is smiling;
A mother pops her head out of a door, calling
For the boy and girl to come home — it's tea time.
And these are just a small handful of all the people
Who live in every country, every town, every street
Filling the greyness of the skies with their hopes and
dreams,
With their joy and love, their blossoming life.
Take them away — and you have nothing.
Only a skeleton, devoid and empty,
Filled with the silence that is somehow deafening,
Its streets bloodless veins, its buildings
Nothing but hollow bones. Without the people
There is no Scotland, no Glasgow, no Townhead.
Without people talking and laughing and singing and
dancing,
Without their hopes and dreams and joys and loves,
Without you and me and him and her and them —
There's no community, is there?

Andrew said: *"I wrote this poem for an historical exhibition as part of my placement with SOS-UK, and it was inspired by the idea that a community is made up of its people rather than landmarks and buildings. The concept that we are all connected and united in an intangible way, regardless of where we live, and that daily life is beautiful even in its mundanity. Not only do I believe that we must preserve and expand our communities, but that, as this poem hopefully illustrates, by working together we can create positive change and fill the grey skies with our hopes and dreams. At least, that was the idea."*

It is clear through the successes of SHAPE Sustainability Impact Projects and the lasting impact of the projects, applied sustainability learning in the form of living labs is an effective way to engage students and

young people with sustainability, giving them the skills, knowledge and attributes needed to tackle the real-world sustainability challenges we face. 🌱

Kedijah is a Project manager at SOS-UK based in the East Midlands, working on our education programmes in universities and colleges. Kedijah studied MSc Environmental Leadership and Management at the University of Nottingham, specialising in climate change. Her dissertation centred around environmental education and how increasing student knowledge/inciting behaviour change can help University of Nottingham to socially adapt to climate change.

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Co-creation for climate education

Sonya Peres



The world has changed dramatically over the years – from a worsening climate breakdown to mental health and housing crises, amongst others. Fortunately, education can play an integral role in responding to these crises and creating a more sustainable, just world through systems change.

The skills, attributes, competencies and knowledge learners are supported to develop through education can allow them to leave their place of learning adequately prepared to respond to these challenges, to shape a better world and, importantly, to thrive in it.

But first, we need to change the way education has been delivered in the Global North to accurately suit our current times. What better way to do this than to directly ask the learners of today how and what they want to learn to prepare them for the world into which they will graduate?

The co-creation of teaching, learning and assessment between educators and learners is an important approach to ensuring education is fit for purpose and grounded in the real-life challenges graduates will encounter. Moving away from hierarchical learning environments, co-creation facilitates the democratisation of education, placing importance on the experiences, priorities and knowledge of both educators and learners.

Co-creation of education empowers learners to become active participants in their learning experience, drawing on their lived and cultural experiences as valuable; ultimately expanding our ideas of what is and isn't important in education. Many approaches to education, including Education for Sustainable Development (ESD) and Decolonising Education, see co-creation as necessary and meaningful.

Student demand for sustainability

For the past 14 years, Students Organising for Sustainability has been asking students in UK universities and colleges what they want to learn and how, through the Sustainability Skills Survey. Students have consistently responded that they want to learn more about sustainability, and they see their place of learning as playing a role in supporting this; additionally, students want to develop sustainability skills through experiential learning.

In responding to learner demand, the next step is actively supporting and engaging students to shape their education and learning environments.



Responsible Future's student auditors at the University of Worcester.

Responsible Futures

Responsible Futures is a supported change programme and accreditation partnering students with their institutions to embed sustainability in all student learning through a whole institution approach. Partnerships (institution and student union or equivalent) undergo a two-day student-led audit every 2-3 years to achieve or maintain Responsible Futures accreditation. Since the programme's launch in 2014, over 180 students have been involved in audits. During the audits, students review evidence, conduct focus groups and interviews and provide feedback and recommendations for the partnership to take forward. Student auditors are instrumental in ensuring Responsible Futures remains a supportive, collaborative, and meaningful process for institutions and student unions.

The feedback and recommendations provided by the students through the audit reflect their priorities, concerns and expectations through their education and place of learning; the accreditation, determined by auditors and moderated by SOS-UK, holds the institution accountable to their students, ultimately facilitating meaningful co-creation of education.

Over the years, we seen Responsible Futures partnerships progress tangible outcomes in partnership with their students, including securing greater resourcing for ESD, more interdisciplinary learning experience, senior leader and strategic commitment to ESD.

"Through the Responsible Futures audit and other processes, [the university and students' union] allow students to have a voice in sustainability, which is something we cherish so much."
(Student auditor, 2022)

"I enjoyed how participative the process is [...] As a student I have often felt that we have very few opportunities to speak up and take part in the decision making, especially when it comes to decisions about the university."
(Student auditor, 2020)


"What makes us proud of this accreditation, is that our students are auditing us as our harshest critics and strongest allies."
(Student Union staff member, 2021)

ESD Changemakers

ESD Changemakers is a year-long programme partnering students with academics from aligned disciplines to co-create approaches to ESD into teaching and learning. Students at the University of Hull mapped their discipline against sustainability criteria, using their findings to co-create new approaches to teaching and learning in their discipline accompanied by workshops and peer review sessions, culminating in a final learning event. This problem-led learning and co-creative approach resulted in ideas to embed topics around sustainability in game jams that take place amongst computer science students and develop a series of student-staff projects called: 'Ethnographic Field Trips on Sustainable Development in Criminal Justice' and 'Social Justice in Criminology', amongst other approaches. Importantly, this learning experience also supported students to develop a range of skills and have ownership over their education and how it relates to their lives as students and upon graduation.

Looking ahead

In 2020, the UK Climate Commission for Further and Higher Education conducted focus groups with tertiary education students across the UK as part of UNESCO's International Commission for the Futures of Education. Students were asked what they felt the role of education was currently, and how can its purpose better suit the future. Many of the responses highlighted fundamental changes that need to be made to education to adequately prepare students for the world they will inherit: *"The purpose of education is to prepare us for a new world. The world will unlikely be as it is now, so teaching in a status-quo, teaching as things have always been, about how the world has always been ... it's just not viable."*

Co-creation of learning between students and educators provides a pathway to shifting the status-quo of education, to move away from what some think education should look like, to what students know they need to learn to be adequately prepared to move in the world. The more we work to encourage and facilitate co-creation, the better prepared students are to live happy, fulfilling lives in a changing world. 

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Sonya is a senior project manager at SOS-UK, managing education programmes embedding sustainability and in all student learning, including Responsible Futures and student-led SDG and sustainability curriculum mapping. She believes education can play an integral role in creating the systems change needed for a more sustainable and just world, and is passionate about partnering students and staff to repurpose education to better play this role.

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Students and staff work together on the ESD Changemakers programme at the University of Hull.

Global youth are demanding quality climate education in the run up to COP28

Shreya KC, David Okenwa, Amit Singh, Sofia Luna Quispe & Tamzelin Rauto

Mock COP is a global movement of young people, with empowerment and representation at its core, to campaign for their leaders to implement policies dedicated to meaningful climate action. In August this year, we brought together 227 youth delegates from 89 countries for our online, two-day Mock Education Ministers Summit (Mock EMS) to raise ambition for climate education ahead of COP28. Delegates assessed the state of climate education in their own country and suggested ways forward. The summit began on International Youth Day to show the importance of listening to and including youth voices in policy making.

Delegates engaged in panel discussions, negotiations and voting sessions to produce their unified youth statement on climate education. The statement includes the world's first youth definition for quality climate education and sets out asks for education ministries. You can read the youth statement on our website²⁶.

So, what happened at the Mock EMS?

Over our two-day summit, we held a range of sessions on issues within climate education and heard from a breadth of speakers, helping to shape our negotiations and discussions on quality climate education.



Ugandan delegate, Walter Oseigwa, campaigning for quality climate education.

One of our keynote speakers, Dr Tariq Al Gurg, set the scene from the summit as he said: *"There is no education problem that is not a climate problem, there is no climate problem that is not an education problem"*.

Our panels discussed ideas such as what quality climate education might look like, how to realise it on an international stage and what young people and education ministers are already doing to push for it. Hailey Campbell, from Care about Climate, highlighted the importance of climate education as explaining it as *"the yarn for weaving together hope as we fight for climate justice"*.

Delegates also took part in several negotiation sessions which included discussing the draft unified statement and possible amendments. They then all debated and voted on whether suggested amendments should pass. Xiye Bastida, a Mexican youth climate activist sent a message to all the Ministers of today during the closing of our Mock EMS: *"They need to step up because we will come to show what we want the world to look like."* She also questioned, *"When will the day come when every single country in the world will have compulsory climate education. My hope is that in the next 3-5 years, we all have access to the education that we need to be prepared for this world, prepared to take solutions and prepared to be the architects of the future."*

Why did we host the Mock EMS?

Young people are facing unprecedented challenges as the climate emergency and ecological crisis worsens, and our education system is failing us. It is not preparing young people to face the effects of the climate crisis nor to understand solutions to the climate crisis, biodiversity collapse and large-scale environmental degradation.


But, at Mock COP, we believe quality climate education can equip young people to not only understand the crises but can equip us to tackle them and build a just, equitable, sustainable future. However, for climate education to help us understand and tackle the climate crisis, it needs to be delivered properly. Poor or non-existent climate education leaves young people with increasing levels of climate anxiety, uninformed about intergenerational injustices inherent to the climate crisis, and without the tools to critically explore the solutions nor question the economic and historical causes that have created the climate crisis.

At COP26, Mock COP was the youth-partner in the first ever Education and Environment Ministers Summit and hosted events at COP27 on climate education. We will continue our lobbying and advocacy to ensure meaningful commitments with clear action for climate education are happening globally.

How can we make change?

Young people across the world are lacking access to climate education and, where it does exist, it often isn't the kind we need. This is why we took it into our own hands to make change and created our unified youth definition of quality climate education and clear asks to see it implemented. We are calling on our Education Ministers to take meaningful action to implement and advance quality climate education and listen to us! We also included a checklist to evaluate policy on climate education in our countries, to keep Ministries of Education accountable on their progress towards improving climate education and help us identify which countries are effectively raising ambition and leading the way.

What next?

We are keeping up the momentum as the Mock EMS delegates will now be engaging with their Education Ministries, sharing the youth statement on climate education and asking them to make commitments ahead of, or at, COP28. We are excited to see the first-ever Youth, Children, Education and Skills day at COP28 when we plan to share our Mock MES outcomes, and the other opportunities being created to raise youth voice and the importance of climate education. We welcome youth, Education Ministers, and other organisations to join us to raise ambition for climate education! 



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Postscript: From the Executive Editor


Dr Elsa Lee



I have been involved with NAEF now for 7 years, and Deputy Executive Director of the NAEF for the past 6 years. I stood down from that role at the recent AGM. This voluntary work has been an absolute pleasure, and I am grateful for the insights it has given me. In that time, I have

watched the landscape of Environmental Education change significantly and rapidly from something on the margins to something which is now centrally considered by institutions and government, both here in England, across the 4 nations of the UK, and globally. One of the things that I have loved about observing this change has been watching the intergenerational shift that has happened. This has been very exciting, and I think that the work of this group of young people that have contributed to this edition of our journal has been key to accelerating that change. It has been a pleasure to support them on this edition. The professionalism they have demonstrated has been exemplary, and it gives me great hope for the future of the field in their gentle and effective hands.

I have also been able to work with SOS-UK and Teach the Future on the Track Changes Curriculum Project. This led me to reflect on what a curriculum is and does, and I have blogged about this on the NAEF website: naef.org.uk/track-changing-the-curriculum.

I do hope you have enjoyed reading this edition as much as I have, and that you will consider supporting the work of this important organisation as they continue to campaign for change in children's education, both today and into the future. 

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Dr Elsa Lee is a Senior Lecturer at Anglia Ruskin University and an Affiliated Lecturer at the University of Cambridge. She is also Bye-Fellow at Homerton College, Cambridge.

REFERENCES

1. teachthefuture.uk/research
2. Climate Education Bill bills.parliament.uk/bills/3070
3. DfE Sustainability and Climate Change Strategy tinyurl.com/myzx6tc
4. teachthefuture.uk/tracked-changes-project
5. teachthefuture.uk/volunteer
6. teachthefuture.uk/action/donate
7. Owens, S. *et al.* (2022) *Lessons from the History of UK Environmental Policy*. pp. 1–71. tinyurl.com/4earz8b6
8. Department for Education (2022). *Sustainability and Climate change: a Strategy for the Education and Children's Services Systems*. tinyurl.com/yjhren8b
9. Mohamed, S. *et al.* (2021) 'The correlation of energy performance and building age in UK schools', *Journal of Building Engineering*, 43. doi.org/10.1016/j.jobe.2021.103141
10. Chatterjee, L. and Reynolds, J. (2008) *Carbon Emissions from Schools: Where they arise and how to reduce them*. rep. Sustainable Development Commission. (Accessed: 16 August 2023) tinyurl.com/344pe7zu
11. National Statistics (2023) *2021UK Greenhouse Gas Emissions, Final Figures*. (Accessed: 16 August 2023). tinyurl.com/yc2a644u
12. Future Forum (2023) *Climate change in secondary schools: young people's views of climate change and sustainability education*. (Accessed: 16 June 2023). tinyurl.com/bdc4v45v
13. Wildlife and Countryside Link – 30 by 30: Land for Nature's Recovery. wcl.org.uk/link-publications.asp
14. UNICEF - The necessity of urban green space for children's optimal development. tinyurl.com/9u84nf5b
- 15, 16. Mind – Nature and mental health tinyurl.com/7z2ks4vw
17. Elsevier – 40-second green roof views sustain attention: The role of micro-breaks in attention restoration. tinyurl.com/yc57bdak
18. Springer Link – Of cricket chirps and car horns: the effect of nature sounds on cognitive performance. link.springer.com/article/10.3758/s13423-018-1539-1
19. APA – Nurtured by nature. tinyurl.com/mry9fnf9
20. Frontiers – Connectedness with Nearby Nature and Well-Being. tinyurl.com/39f34fs9
21. The Lancet – Cooling cities through urban green infrastructure: a health impact assessment of European cities. tinyurl.com/22nwm6hp
22. Woodland Trust – Tackling air pollution with trees. tinyurl.com/nyvmr38x
23. Yale Environment 360 – Ecopsychology: How Immersion in Nature Benefits Your Health tinyurl.com/57wxwjje
24. What is a Living Lab? tinyurl.com/2p8r9sb8
25. Universities as the engine of transformational sustainability toward delivering the sustainable development goals: "Living labs" for sustainability. tinyurl.com/4akns5ar
26. mockcop.org/our-mock-education-ministers-summit-raising-ambition-for-quality-climate-education

Summer Term 2023 was very busy for the Kenrick Days bursary scheme, with schools making the most of being outdoors. We believe that educational visits are a fundamental aspect of school life, offering educational, social and experiential opportunities that go far beyond what can be learnt in a classroom or on the school site.

The reports here include a pirate-themed geography visit to Martineau Gardens; a plants/habitats session at RSPB Sandwell Valley; and a home education group visit to Birmingham Botanical Gardens.

Teacher's report from St Mary & St Margaret's School (Solihull) Year 2 visit to RSPB Sandwell Valley, May 2023

We don't have much green space in our school or near school so it was so beneficial to explore the environment at Sandwell Valley and to look for wild habitats and different plants. The children had a fantastic day. They loved pond dipping, exploring creatures, going on a sensory walk, listening to bird sounds and having a nature story, too.



Matching colours during a senses walk

They were able to access the following areas of the curriculum which linked to both our 'Habitats' and 'Plants' topics in Year 2:

- *Identify and name a variety of plants and animals in their habitats, including micro-habitats.*
- *Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.*
- *Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.*

When we got back from the trip, children linked everything we learnt on the day to our learning in school and even linked it to English as we retold our day using our writing skills.

Some quotes from the children about what they learnt on the day:

"I learnt that the robin eats dried mealworms!"

"We found newts, flatworms and a leech – they live in a pond!"

"My favourite part of the day was learning about birds making different noises – I didn't know that before!"

"We have our smell, sight, touch, taste and smell – these are our senses!"

"The volunteers helped us by telling us how to do the pond dipping and how we should kneel down and not stand up so we don't fall in the pond."

As a school, following the trip we are now in the process of having 'Eco Warriors' at school to help protect the environment. These children will meet with me once a half term to discuss their ideas and progress.

Report by Emma Wallin, Science Coordinator

Teacher's report from Blessed Mother Teresa's Catholic Primary School (Stafford) Year 3 & 4 visit to Martineau Gardens, May 2023

Blessed Mother Teresa's Catholic Primary School is the Geography Hub for the Painsley Academy, and earlier in 2023, we created a geography room. Parents came into school to work on geography tasks alongside children. With this in mind, we selected our visit to Martineau Gardens to provide a geography field trip for the children and to give staff ideas of how to develop geography within the school's environment.

Task 1: After recapping using a compass and identifying north, the children were given instructions to follow with a compass. The children enjoyed this task. They worked together well discussing how to use the compass and which way to turn etc.

For the staff, this showed how a simple task could be created and used in school, demonstrating geography and communication skills, without needing much space or time. These cards will be recreated for our environment and the idea shared with the primary schools in the academy.

Task 2: The children used map-reading skills to collect stamps at points found on the map. The final location had buried treasure. It allowed some who are not so successful in the classroom to have a leading role. The children worked together in small groups discussing which direction to go, which point to visit next, in most cases, with the adult as an observer.

For the staff, it showed how maps of the school environment could be simple and manageable and that the children need a goal to work towards. The map work could be linked to any topic, as the collection points/wayfinders could be stamps or information or parts of a story. The aim is to install a few different types within the school grounds.



Using map-reading skills for a pirate treasure hunt



Making their own treasure maps.

Task 3: Creating a map. Some worked alone and some chose to work as a small group. Some created a large island and some created an archipelago of islands. Some add lots of detail, whilst others kept it simple. All achieved. Once back at school, the maps were used to create a display.

As the geography hub school, we have added a mapmaking sessions for all year groups, at least once a year. They also have the opportunity to view many different types of maps.

These are linked to geography, RE, English, science and even French.

Task 4: Pond dipping. The children loved this task as the pond was brimming with life.

Our school pond is in need of repair. Seeing the children enjoy this so much has been the catalyst for recruiting a group of students (post exams) to come and improve our pond and conservation areas. We have also reached out to our local community for help providing plants, bird baths and items to restock the bug hotel. We are slowly improving the areas for the wildlife but the results have been great. Our Prayer Garden has seen the return of



The children found a wealth of creatures in the pond.

The children are more aware of their school environment, with many asking to litter pick, water plants, put feed out for the birds or remove weeds from the slabbed area into the compost.

A link with the local Spar shop has developed as pupils and shop staff litter pick together to improve the environment beyond school.

Report by Victoria Cowling, Science Lead

Leader's report from Nurturvate CIC visit to Birmingham Botanical Gardens, August 2023

In the heart of bustling inner-city Birmingham, a group of eager young learners, aged between 3 and 10, embarked on an educational journey that would not only enrich their minds but also sow the seeds of inspiration for a remarkable community project. Our home education group had a unique mission: to create a community garden that would not only beautify our neighbourhood but also support local wildlife.

To kickstart this endeavour, we booked educational sessions at Birmingham Botanical Gardens, after successfully applying for the Kenrick Days Bursary Fund, that focused on plant growth and a captivating garden tour. Our aims were clear: to instil in our children the importance of plants, their role in our lives, and the significance of caring for the environment.

The Growth of Knowledge: Our first session, Growth, was an indoor adventure into the fascinating world of plants. Led by the Botanical Gardens educational leader, our young botanists learned about the various parts of a plant, from the roots to the leaves, and even discovered the interesting facts of pollination. They were quizzed on concepts like photosynthesis and were introduced to the vital roles of the stigma and stamen in plant reproduction. These lessons not only aligned perfectly with our community garden project but also sparked curiosity and excitement among the children.

One of the young participants, brimming with enthusiasm, shared his newfound knowledge, saying: *"I learned a lot about the different varieties of plants on the gardens tour. I really liked the growth session indoors as I learned some parts of plants that I didn't know before – called stigma and stamen."* This young learner's comment was a testament to the success of the educational session, igniting a sense of wonder and discovery.



Learning about the parts of a plant and their functions.

A Garden Tour of Discovery: Following our indoor educational session, we ventured out into the lush expanse of the Birmingham Botanical Gardens. The children's eyes widened as they encountered a diverse array of plant species, from exotic orchids to towering trees. The gardens tour was not just a visual treat; it was an opportunity for the children to engage their senses fully. They touched gigantic and small pinecones, listened to the birds, and inhaled the fragrant aromas of blooming blossoms.

As we explored the gardens, we also learned about the importance of respecting natural environments and being responsible stewards of the earth. The children were inspired by the rich biodiversity of the gardens, which encouraged them to focus on our community garden project with newfound determination.

Connecting with Nature: The visit to the Birmingham Botanical Gardens served as a catalyst for our community garden project. It was evident in the enthusiasm and dedication the children showed during follow-up learning sessions. Armed with their newfound knowledge about pollination and plant care, they eagerly began planning and planting the seeds (not literally yet) for our community garden.

Our educational visit to the Birmingham Botanical Gardens was a transformative experience for our home education group. It provided our children with the knowledge, inspiration, and connection to nature necessary to embark on our community garden project. As we move forward with our plans, we are reminded of the vital role that such educational visits play in nurturing young minds and fostering a deep appreciation for the natural world.

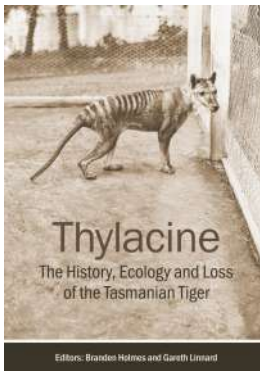
Our journey began in the gardens of Birmingham, but it will culminate in the creation of a beautiful green space that will be a testament to the power of education, inspiration, and the boundless potential of young minds. The children cannot wait to return for another educational visit, and we are excited to see how their newfound knowledge and enthusiasm continue to bloom. 🌱

Report by Khadeejah Robinson, Group Leader

naee.org.uk/apply-for-a-school-bursary

BOOK REVIEWS

Thylacine: the history, ecology and loss of the Tasmanian Tiger



The publication of the new book *Thylacine: The History, Ecology and Loss* seems very appropriate in its timing, in that the circumstances that surrounded the 'last animal' – why and how it met its demise – has been a recent topic on social media including Twitter!

Also, a search by me of books in Queensland State and local libraries (I reside in Australia) produced a good number of titles,

which prove that people have been interested about the animals, its ecology, behaviour and the like – and of course, concerns of its extinction.

The extinction of the thylacine is, I would suggest, a symbol of 'what we could have done differently', so as to prevent the event altogether. This last sentence made me think of the 'dodo' – which is itself a 'symbol' of life no longer being with us, so that we next have to admit that 'human beings are good at being bad at learning from our past human-activity-based wildlife experiences'. When will we learn? Media and scientific interest in such questions, including the possible bringing back of the animal through 'de-extinction' of it, has made the pages of *BBC Wildlife* and *National Geographic* this year.

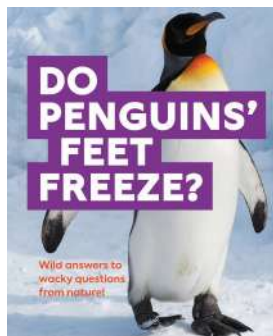
The editors of this new volume are very personally invested in the accurate depiction of the Thylacine and what happened to it – having the words 'Loss of' on its cover highlight its specific targeting of that reality. Branden Holmes is a citizen scientist who co-edited the book with 78 contributors (including more than 55 PhD scientists). He is noted for founding the world's largest website about recently extinct and rediscovered taxa (REPAD). He is one of three researchers alongside Mike Williams and Gareth Linnard – the other co-editor, that collectively discovered and dated the latest known film footage containing a Thylacine (the 1935 Sidney Cook film, the 9th known), which has since made global news. We have also discovered the 8th known Thylacine film, known as the Bester footage and dated broadly to 1933-36. And the 10th known film taken by Reverend Harold Doyle on 23 December 1930, showing the last captive Thylacine as a cub.

This new book therefore represents a flagged event of an historic happening which we cannot change, but from which we can learn. Its very detailed research into the last years, months, weeks and days of the last animals, is especially important. It seems that previous texts have

either not had the capacity to handle such detail or chosen, for the purposes of easier reading, to 'gloss over the truths'. In these chapters, the writers take a very close and unflinching investigative look over the records, including many not seen or examined before, of the last Thylacines and their sightings or humans' (sad) handlings thereof. The writers' aim to, and I would say success in, 'joining the dots' of these very scattered bits of evidence, is one of the hallmarks of this superb yet daunting wildlife historic account.

Holmes, B. & Linnard, G. (Eds.) (2023) *Thylacine: The History, Ecology and Loss of the Tasmanian Tiger*. Australia: CSIRO Publishing. ISBN 9781486315536. Paperback. 240 pages.

Do Penguins' Feet Freeze? Wild answers to wacky questions from nature



The Natural History Museum – that cathedral to the natural world and its multiple wonders – has done it again, with this quirky collection of weird factual stories. It will come as no surprise that the team of experts at NHM London has come forth with this sound volume to answer some of the many, many questions that people – especially young thinkers –

might and do ask. Cleverly, the book is also published by CSIRO in Australia, thereby providing readers in the Southern Hemisphere easier access.

Why do rabbits eat their poo?

Why aren't some eggs 'egg-shaped'?

Are doves and pigeons the same?

While this is very much a 'science volume', the style is very non-fussy and direct: 'poo', for example, is used instead of faeces. It reads like an adventure which, arguably, the natural world is – sometimes with strange or even deadly (fatal) effects.

The clearly informative text is assisted by great images. The chosen format of bold colours and boxed texts – I admit I would have preferred more subtle shades – is obviously aimed at a modern, younger readership.

This brilliant volume 'does what it says on the tin'. No young person, or science lover of any age, should ideally be far from this great little science book.

Natural History Museum (2023) *Do Penguins' Feet Freeze? Wild answers to wacky questions from nature*. Natural History Museum, London (for northern hemisphere) / CSIRO Publishing (for New Zealand & Australia). ISBN 9781486317820. Paperback. 96 pages.

Both reviewed by Henricus Peters

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