

National Association for Environmental Education (UK) Annual Review 2021 / 2022



This is a report on the work of NAEE from August 2021 to July 2022. It is an account of key developments and the issues we faced, and contains reports on: finance and management, publications, and our collaboration with like-minded organisations. It also includes a number of articles and blog posts that were originally published during the year.

A Notable Twelve Months for NAEE

These past 12 months have been significant both for NAEE and for environmental education more widely. We marked our 50th anniversary with a celebratory edition [Vol 128] of our journal and by funding a range of projects. One of these resulted in the digitization of every back number of our journal from 1971. These are a unique record of the ebb and flow of environmental education across the UK. You'll find them [here](#). Another saw the celebration of 10 years of the Kenrick bursary scheme and the 6000th student to benefit from this. This wonderful event took place at Martineau Gardens, Birmingham, in March. Another outcome will be a publication in the Autumn celebrating this achievement.

We were also pleased to be able to contribute to Mrs Anne Kenrick's memorial service to mark the tremendous contribution she made to the Association over many years. We are very grateful for the generous donations that were made at that event to support our

continuing bursary work with schools.

A Busy Year for Environmental Education

This year saw COP26 in November, which we covered extensively in our web and social media outputs, and the DfE's sustainability and climate change [strategy](#) which we contributed to and reviewed after its launch in April. It's fair to say that our main thought on this was that it was another missed opportunity by government to listen to what teachers and young people were saying about their future. The launch saw the announcement that DfE would support the proposal for a Natural History GCSE.

NAEE Manifesto

Discussions around the DfE's strategy stimulated the publication of our Young People's Learning and the Environment [Manifesto](#) in 2022. This aims to build on existing work in schools and colleges to further stimulate change in thinking and practice, and thus help to better prepare young people for the social and environmental challenges they will face through their lives. We expect it to influence what we do for the next few years, particularly as we prepare our development plans for 2022 to 2025.

What follows features the issues identified here, and more. We hope it is a stimulating read.



The images shown here relate to environmental education activities that were funded by the Kenrick bursary scheme during 2021/22. All images: NAEE

NAEE's charitable objects are 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.

50 Years of NAEE

NAEE is 50 years old. In Vol 128 of our journal we marked this achievement in a number of ways. In what follows, we look at five late 20th century issues that NAEE was involved in.

Aims & Objectives – In 1976, NAEE published *A Statement of Aims* which set out learning targets for all school age groupings. As Stephen Sterling noted: “*this performed the important service of tying down the loftier ideals of early international documents*”. In the Foreword to the 1982 second edition, NAEE President, Lady Bowes Lyon, wrote that the first edition had been “*recognised as the only definitive statement of aims and objectives in this curriculum area to be produced. It has been used widely in the production of guidelines for primary education and in establishing examination syllabuses at secondary level*”. It was also quoted extensively by many organisations including the Department of Education and Science (DES). HMI, for example, quoted from it in reports written in the earlier 1980s of surveys they carried out in Derbyshire, Sheffield and Manchester.

Tbilisi – All delegates to the 1977 world environmental education conference in Tbilisi received a pack of materials on *Environmental Education in the UK* from the DES. Sterling notes that these had been “*largely ghost-written*” by members of NAEE and CEE. They included the NAEE Statement of Aims which had international reach as a result. The Tbilisi Declaration was taken note of in the UK as the December 1979 edition of NAEE's journal (Vol 11) illustrated. This carried a 5-page article about the HMI paper: *Curriculum 11-16: supplementary working papers* which illustrated the pre-Ofsted HMI's extensive interest in environmental education through the 1970s and '80s. The NAEE statement was explicitly referenced by HMI, as were influential UK documents by NAEE insiders such as Keith Wheeler and Sean Carson.

“We must have a curriculum role, or we have nothing”

The National Curriculum – The anxiety felt by NAEE over the prescriptiveness and subject-focus of the national curriculum consultation documents was clear from Cyril Jennings's Chair's address at the 1987 AGM that was reported in Newsletter 50. There had been no mention of environmental education despite its intrinsic value to the curriculum as it did not have the status of being a proper subject. Colin Harris, the editor of *Environmental Education* noted in his Vol 27 editorial: “*We must have a curriculum role or we have nothing.*” In his comments in the same volume, Philip Neal, NAEE

general secretary, expanded on this concern providing details of the feed-back he had provided on behalf of the Association. CEE and NAEE sponsored amendments to the legislation to try to ensure the inclusion of environmental education, but these were not successful. A particular worry for NAEE was the requirement to write attainment targets for a cross-curricular experience when doing so was difficult.

“This policy climate is still with us, but now we know that it also provides opportunities for EE to wither.”

The SCAA Guidelines – In 1995, the 50th edition of *Environmental Education* carried an article by the professional officers for geography in the School Curriculum and Assessment Authority (SCAA) explaining how recent revision to the national curriculum based on the Dearing Review had improved the prospects for environmental education in schools. This had followed a positive, though qualified, appraisal in Vol 49 by Chris Gayford. The officers' optimism was that “*the revised Orders, providing only a minimal framework offer considerably more scope for schools to decide on their own priorities and give the curriculum their own distinctive flavour*”. Such a climate, they concluded “*offers the opportunity for EE to thrive*”. This policy climate is still with us, but now we know that it also provides opportunities for EE to wither.

Teaching Environmental Matters – NAEE contributed to the development of the SCAA 1996 publication: *Teaching Environmental Matters through the National Curriculum* (TEM). The production of this had been a commitment given at a rare joint Department of Education and Department of Environment conference the previous year at which (even more rare) both secretaries of state were present. In the 1997 Summer edition of *Environmental Education* (Vol 55), Alan Reid and Bill Scott argued in a review of TEM that it was in effect a rewriting of Curriculum Guidance 7. They concluded that: “*schools will find the (sometimes excellent) materials difficult to use, because they contain no detail of why a particular innovation was successful. ... Without such an analytical evaluative overview, this document is unlikely to have the impact which is desired*”.

And so it proved. As for all that optimism, well, opportunity knocked but not all school doors were opened.

NAEE's Young People's Learning and the Environment Manifesto

A key aspect of our work in 2021/22 was the development of an [NAEE Manifesto](#). This aims to build on existing work in schools and colleges to further stimulate change in thinking and practice, and thus help to better prepare young people for the social and environmental challenges they will face through their lives. It was a major contribution to the ongoing discussion and debate about how educators might usefully respond to the sustainability and climate change emergency. This introduction to the manifesto appeared in Vol 130 of our journal.

In his introduction to the Manifesto at its launch, Professor of Science and Environmental Education, Justin Dillon [NAEE's President] said:

“Young people are already facing a number of important social and environmental issues head on in today's society and our Manifesto aims to help support their education so they can feel more confident in being part of the solution.”

The Manifesto is aimed across the whole schooling system: governors and leaders, lecturers and teachers, pupils and students, and all support staff. It sets out 16 commitments that will help guide institutions to become more sustainable and improve the education that pupils and students receive.

There are a number of recurrent themes across these 16 commitments. These constitute a set of principles which are at the heart of what we think is important for schools and colleges to do in relation to young people's learning and the environment:

- **Partnership**
- **Integrity**
- **Building capacity**
- **Inclusiveness**

The 16 commitments fall under four themes: *Leaders; Teachers; Learners* and the *Organisation* and each comprises four statements set out as an action. For example:

- **As leaders** we shall ... foreground an inclusive whole-institution approach to environmental issues, including those around equity and justice.
- **As teachers** we shall ... encourage pupils and students to explore issues critically and creatively, and to challenge the views, values and ideas that are presented to them in ways that develop their capacity to contribute to society throughout their lives.
- **As learners** we shall... be open-minded, critical and creative when encountering new ideas and recognise that values are important in making decisions for ourselves, our families and for society, and that values can change.

- **As an organisation** we shall... become part of a community hub for issues related to the environment, providing opportunities for local organisations to think about their own actions and becoming a role model for how to become more sustainable.

As this structure emerged in the drafting process, I recall thinking how powerful it was to expect everyone involved to have interlocking responsibilities in this way, and the full set of 16 commitments is worth looking at to see the breadth and connectedness of the issues that are set out.

There are notes for each of the 16 commitments on the thinking behind the manifesto. Here's an example:

- **As learners** we shall be open-minded, critical and creative when encountering new ideas and recognise that values are important in making decisions for ourselves, our families and for society, and that values can change.

“This means appreciating that societies and communities can develop positively through an open consideration of different perspectives where values and wants are set out. This implies that clear and frequent communication and discussion are necessary if we are to understand each other. Today we get our news, information and ideas from multiple sources and it's available 24 hours a day.

All information invites us to accept it at face-value, but how do we know it is accurate? Being sceptical of information is a useful way of considering its value. This can include asking yourself whether something sounds or feels right; considering whether the source of the data is usually reliable; seeking corroboration from other sources; and checking with other people. Being sceptical is sometimes dismissed as just being negative and distrustful, but in reality it's the basis of sound decision-making.”

You will find reactions to the Manifesto on our website (just search for 'manifesto'). These have been positive though some come with caveats. Whatever others do, NAEE itself will be using the Manifesto to help focus its programme of work for the next three years.

Financial Summary

As we recovered from the impact of the virus, money not spent in previous years was able to be used: most particularly in the provision of Kenrick bursaries for schools and in development project spending. The overall financial footing of the Association remains sound. Of particular note this year was the £3,800 received in donations. 42% of this came from those attending the memorial service for Mrs Kenrick, and NAEE continues to be appreciative of the generosity of the Kenrick family. The 58% non-bursary donations were from a wide range of individuals and organisations and we are also grateful to all of these for supporting our work. We think this marked increase in donations is probably due to our increased visibility through we-based publications and activity.

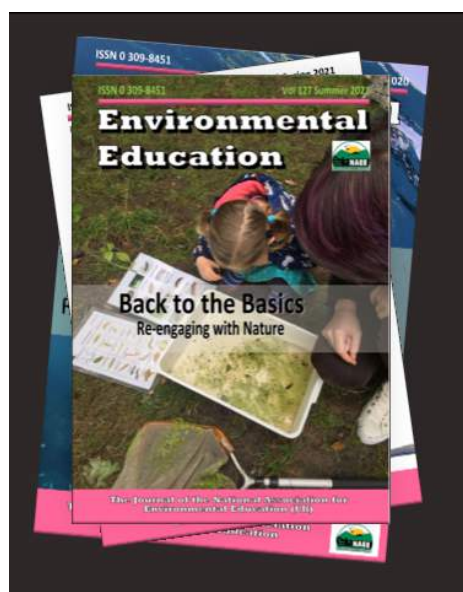
2020 / 21		2021 / 22	
Income	Expenditure	Income	Expenditure
£10,472.91	£10,971.49	£15,058.12	£19,517.91

2020 / 21 Income	%	2020 / 21 Expenditure	%
Investments	54	Curriculum Support	20
Membership	12	School Bursaries	42
Donations	25	Networking and Collaboration	30
Publications, sales, royalties, etc	1	Core professional services	4
Consultancy	8	Operating costs	5

92% of expenditure went directly on the main ways we deliver our charitable objectives: bursaries, publications, networking, communications, and the website. We should note here that this does not include the considerable, but incalculable, in-kind contribution from members and volunteers to the operation of the Association. It is good to be able to record the Association’s heartfelt thanks to all who give their time freely to what we do. This in-kind contribution never gets represented on a balance sheet but we should be lost without it. Fuller details of the Association’s audited accounts are available in our annual return to the Charity Commission which can be found on the Charity Commission’s website.

Environmental Education: NAEE’s Journal

Our journal *Environmental Education* has been published continuously since 1971. Despite the lingering effect of the pandemic, three volumes of the journal were published as usual.



Vol 128 (Autumn 2021) was a print edition that had a 50th anniversary theme with a range of articles looking back over the first 50 years of NAEE’s life.

Vol 129 (Spring 2022) focused on the freshwater challenges that we face. There was a range of contributions from colleagues in water-focused charities such as the Wildlife and Wetland Trust and the Canal and River Trust.

Vol 130 (Summer 2022) focused on mammal journeys with key contributions from colleagues in wildlife/conservation charities. There were also articles exploring NAEE’s Young People’s Learning and the Environment Manifesto.

Volume 130 is currently restricted to members; but previous journals are available at: naee.org.uk/ee-journal.

Governance & Management

NAEE's charitable objects are 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, in particular but without limitation by ...

[i] facilitating curriculum development through the provision of resources, information and ideas for teachers,

[ii] providing financial support for pupils to visit outdoor education centres, and

[iii] collaborating with organisations that have related objectives.

The ways in which these are normally realised are:

Hugh Kenrick bursaries for schools; publishing (journals and reports), web and social media outputs, and collaboration with other organisations.

Following the management review carried out last year, the 2021 AGM approved the formation of an executive support group and a change of role titles.

Week-by-week activity continues to be carried out by the Executive Director and a number of effectively co-ordinated working groups, all ably supported by a professional administrator.

There were four meetings of the Trustee Board during the year, all by zoom. Attendance overall was 78%, and four trustees attended all the meetings.

Trustees, Officers and Key Volunteers in 2021 / 22

Trustees

Justin Dillon (President)
 Gabrielle Back
 Tim Baker
 David Dixon (co-opted 07 2022)
 Nina Hatch (*ex officio*)
 Elsa Lee (*ex officio*)
 Paula Owens
 Morgan Phillips
 William Scott (Chair)

Elected Officers

Nina Hatch (Executive Director)
 Elsa Lee (Deputy Director)
 Sue Shanks (Treasurer)

Key Volunteers

Ben Ballin	David Fellows	Sue Fenoughty
Juliette Green	Henricus Peters	Alona Sheridan

The Legacy of Anne Kenrick

In 2021 **John Kenrick** (NAEE Vice-President) reflected on his mother's huge contribution to the Association.

"This academic year, the 6000th pupil from one of Birmingham's inner-city schools will go on a day out to one of the local environmental study centres. The cost will have been met through a bursary funded from a legacy to NAEE from the late Anne Kenrick. These days out have become known as Kenrick Days and have enabled teachers to cover environmental issues that would otherwise not be on the curriculum and most importantly to allow pupils to get their hands dirty, learn about the source of milk and eggs and appreciate the natural environment. This was the wish of my mother, a passionate advocate for environmental education. She was first inspired by a visit to Kirstenbosch Botanic Garden in South Africa, where a wooden shed had been converted into a classroom to teach pupils about the flora and fauna of their local area. As a former Chair of Governors, I fully supported the donation to NAEE to fund the bursaries. In later life as her eyesight failed, my mother enjoyed me reading out the letters from pupils and reports from teachers, which proved what a valuable learning experience had been achieved by these visits."

The celebration took place on March 21st when students from Birmingham's St Catherine of Siena School visited Martineau Gardens. Juliette Green, who teaches in the gardens and is a key contributor to NAEE, said:

"These trips are a wonderful way of bringing children into new environments and encouraging them to take part in all kinds of activities, from pond dipping to plant identification. The natural environment links with every aspect of the school curriculum, from science and geography to art and literacy and helps children expand their horizons beyond the classroom."

2022 Kenrick Bursary Visits

Sarah Flynn Vilic reports on the visit by Bishop Challoner Catholic College Eco Group to Martineau Gardens in March 2022.

Our Eco Group spent a lovely day at Martineau Gardens, combining fun with learning about our environment and planning for our forthcoming Peace Garden. At Bishop Challoner Catholic College, we are currently building a new block of classrooms, and an area outside the new build has been set aside for our Eco Group to create a Peace Garden for the benefit of the whole school community. One of the main aims for our visit was to learn about how to design a garden, as this is a completely new project for the group, and to learn about the types of plants we could include.

On arrival at Martineau Gardens, the group played games in the woodland, gleefully going on a minibeast hunt, and identifying trees they'd been led to whilst blindfolded by using their other senses. This set the tone for the day – a fantastic combination of fun and learning!

We were fortunate enough to speak with a horticultural therapist, who gave the group a lot of ideas for planning their garden, inspiring them to look at the symbolism of plants when thinking of what to include. They are very keen on planting Ginkgo Biloba after learning that it became a symbol of hope; as we walked past it later, one pupil said “did you know it survived the atomic bombing of Hiroshima?!” The group then tasted a variety of herbs to decide which ones to plant around school – chives were especially popular!

In the afternoon, the staff at Martineau Gardens helped the group to create mood boards for the Peace Garden, which they then presented to each other. Some chose flowers that matched the school badge, whilst others divided the space into different sensory zones “so that people can use the senses that most calm them down when they need it”. Their mood boards are a joyful mix of colour and symbolism – on their return to school, they showed their work to the principal, who was very impressed with their creativity!

The Eco Group arrived back at school brimming with ideas and enthusiasm for creating not only the Peace Garden, but also for reinvigorating other green spaces around school. We are eagerly awaiting the completion of the new build, so that we can begin work on our Peace Garden. In the meantime, they are putting into practice the knowledge they gained from our trip by planting flowers to attract pollinators in planters around school.

Ciara Belcher reports on the visit by English Martyrs Primary School to Mount Pleasant School Farm in March 2022.

We thoroughly enjoyed our trip to Mount Pleasant Farm; we couldn't have wished for a better first school trip. Our school is situated on a very small footprint of land with no green space on the school site, so to arrive at the farm was a very exciting and memorable experience. We were surrounded by beautiful scenery and the children were very excited to meet the animals we have been learning about. We were greeted by Nina Hatch (and Tinkerbell the dog), who talked to us about the farm and the animals we were going to see. We learnt the names of the different animals and their young.



Mount Pleasant School Farm Centre Manager (and NAEF Executive Director) Nina Hatch with nursery pupils from Langley Primary School.
Credit: Kathryn Grahame

The classroom activities were informative, clear and very engaging for all children. They learnt all about sheep, pigs, chickens and cows and picked up lots of new vocabulary along the way. This linked perfectly with our theme ‘Creature Comforts’, which enables our children to know about similarities and differences in relation to places and living things. Children were able to gain memorable first-hand experiences of farm animals. They were given lots of opportunities to observe, engage and discuss.

Mrs Hatch was brilliant with the children: she was kind and gentle and gave them lots of opportunities to ask questions and spend time observing the animals. It was so enriching for the children, giving them time to reflect on the similarities and differences between different farm animals.

The children have been so excited and motivated after their trip to Mount Pleasant School Farm. Parents have commented on how excited the children were to tell them all about what they had seen! We had lots of discussions about the farm after the visit, in preparation for our recounts and the discussions about the farm have been amazing!

“She loves animals and I am going to make sure we go and visit a farm again because she has never been to a farm before.”

Examples of Partnership

NAEE collaborated with a range of organisations during the year. Here are four examples:

The National Governance Association

We continued our work with the NGA. The Association now has a [Greener Governance Campaign](#) to encourage all schools and trusts to agree a strategy for their contribution to environmental sustainability, and to equip governing boards to play their role in overseeing this work. To support boards in doing this it has renewed and updated its [guidance](#) that it published in partnership with NAEE.



The NGA has now teamed up with *Derventio Education* to produce an on-line audit tool for school and academy trust governing boards. This is based on the 4Cs framework which the *NGA developed* last year that was based on the work that we did with the NGA and reflects our own [curriculum guidance](#). We have offered guidance to Derventio on the design of the audit tool, and this will soon be on-line for use by governing boards. It will be badged as: "*Greener Governance: Your free sustainability development tool. An NAEE, NGA, SchoollP partnership*".

Environmental Audit Committee

In NAEE's [written evidence](#) to the *House of Commons Environmental Audit Committee* [EAC] inquiry into [Green Jobs](#) we called for all school leavers to have an essential understanding of key environmental issues.



The committee's report is now [published](#) and section 4 (page 37 onwards: the *Education and Skills Pipeline*) begins by quoting NAEE's key point that all school leavers should have an essential understanding of key environmental issues as this cannot be the responsibility of every employer, just as essential numeracy and literacy are not. Our guidance to the EAC is now published as [curriculum guidance](#) on our website.

COBIS

Our work with *COBIS* – the Council of British Overseas Schools – judging their eco-film-making competition was successfully completed in April. This year, there were 56 entries (up from 38 last year) from 23 countries (up from 15 last year). The 2022

winners and runners up represented schools across Africa, Asia, and Europe.



Once again, successful entries were characterised by a clear account told in an engaging way by students about an innovative and creative student project that made a difference. In the most successful films, music and images were carefully chosen to add to the story, and data were used with precision to illustrate issues and outcomes. We have agreed to work with COBIS again in 2022/23.

Teach the Future & SOS-UK

We continue to work with *Teach the Future* and *Students Organising for Sustainability*. In particular, we collaborated on two initiatives. The first was a piece of research carried out through *Teacher Tap* which surveyed 4,690 teachers in England to find out their experiences of embedding climate change and the ecological crisis into their work with students. The purpose of the research was to better understand the extent to which these topics are being integrated into lessons, and what we might need to do to routinely make it happen in every school. The research summaries have been published [here](#). This is *what* our Chair made of it all.

TEACH THE FUTURE

The second is on-going. NAEE is working with *Teach the Future* and *Students Organising for Sustainability* on the 'Trackchange project'. The purpose is to review and re-draft sections of the national curriculum framework, statutory programmes of study and attainment targets for key stages 3 and 4 to illustrate what these would need to look like in order to take climate change and the ecological crisis seriously and help young people learn about them and how to take action to address them. The national curriculum revisions (2014/2017) provide the baseline for this. A consortium of academics won the tender for this work. The report will be published and launched in September. NAEE is represented on the project steering group and the consortium is led by Elsa Lee and Paul Vare and contains many NAEE members.

Whilst it seems probably that DfE will ignore the project outcomes, the research will place a significant marker in the ground for the future development of the national curriculum when times are more propitious.

Making the Case for Residential Biology Fieldwork

Melissa Glackin and **Kate Greer** make the case for residential biology fieldwork.

As a result of the pandemic, as schools return to a more 'normal' state, school leaders, alongside their heads of subjects, will face a range of resourcing decisions. Difficult choices will be necessary concerning the allocation of the subject timetable, alongside the distribution of, almost certainly, a restricted budget. As school leaders juggle new and pressing demands, and teachers become accustomed to alternative approaches introduced to substitute fieldwork during the lockdowns, there is a credible argument that the decline of fieldwork could accelerate, particularly for residential visits.

This situation seems somewhat ironic given the phenomenal call from young people around the world for more, and better quality, environmental education. Hence, we have recently published an article in the Association of Science Education's *School Science Review* as a form of preventative action and argue that the pandemic strengthens the case for A-Level Biology fieldwork, particularly residential field visits.

In the article we set out a research-informed case to support our rationale for the inclusion of fieldwork in schools and present an accessible list for teachers who want or need to make a case for fieldwork post lockdowns. Whilst many of the reasons are generalisable, this list arises from a recent research study which focused on the often omitted but important perspectives of teachers and young people who are studying A-level biology, and who are living and working in urban environments.

The next column shows a summary of the eight emerging reasons to attend a residential A-level Biology field visit. We grouped the reasons into three themes. The first group of reasons attests to field visits as enabling students to meet the A-level Biology practical skills assessment criteria effectively and efficiently. The second and third group of reasons acknowledge the important benefits that influence broader A-Level achievement in the Biology exams. In short, in view of the post-pandemic 'catch up' discourse, this list points to field visits as an effective way for students to catch up on skills and assessment and to improve their overall A-Level achievement. Additionally, our list, specifically the second and third group of reasons, indicates the post-pandemic value of field visits in relation to individuals' wellbeing and social needs. We know that the pandemic has resulted in social losses for students (and teachers), and that students have lacked opportunities to experience anything beyond a very restricted geographical area. Our list also highlights that these visits build resilience by helping students to 'get out of their comfort zone'

and strengthen connections amongst peers and between staff and students, again super important in light of the restrictions we have all faced.

If you find yourself needing to make the case to colleagues or your senior leadership team this coming autumn, hopefully this list will provide some support.

Eight reasons to attend a residential A-level Biology field visit

Related to A-level assessment

1. To complete practicals related to the Common Practical Assessment Criteria (CPAC).
2. To experience the ecosystems listed by the examination board.
3. To acquire a bank of shared memories to use as a recall resource back in school.

Related to personal growth

4. To build individual and collective resilience towards 'being out of our comfort zone'.
5. A unique opportunity to establish and foster peer and student-teacher relationships.

Related to broadening perspectives

6. To showcase the importance of ecology and the subject's interconnections across the curriculum.
7. To meet, get to know and learn from, over an extended period, 'real scientists' in their workplace.
8. To engender an appreciation of nature and the environment.

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Melissa Glackin is a senior lecturer in Science Education at King's College London.

Kate Greer is Associate Director of the Monitoring and Evaluating Climate Communication and Education ([MECCE](#)) Project at the University of Melbourne.

This article was first published as an NAEF blog in September 2021.

It was based on their [original article](#) in *School Science Review*: Making the case for A-level biology residential fieldwork: what has nature got to do with it? 102 (381), 21-26.

Unsheltered Thinking

In a blog written for us last October as we all were anticipating COP26 and what education ministries across these islands would make of it, **Ben Ballin** urged us as a “middle-aged” organisation to “make bold plans”.

“Please get out of the new [road] / If you can’t lend your hand”

Bob Dylan, [*The Times They Are A-Changin’*](#)

Towards the end of Barbara Kingsolver’s brilliant state-of-the-US-nation novel ‘Unsheltered’, its central character Willa has a moment of revelation, while watching her prickly, unconventional daughter Tig set up home in an upcycled garage. Here are some of Willa’s parental musings:

“She aimed to be immune to the ambitions and disappointments that had maimed her parents’ existence and now were stirring up a national tidal wave of self-interest that Willa found terrifying ... Here was the earthquake, the fire, flood and melting permafrost, with everyone still grabbing for bricks to put in their pockets rather than walking out of the wreck and looking for light.”

The novel mirrors Willa’s situation with the story of a nineteenth-century Darwin scholar, a teacher who is expelled from his job, home and town for his refusal to submit to the religious orthodoxies of the time. In both instances, as Kingsolver’s own website pithily notes, “the foundations of the past have failed to prepare us for the future.” (“Us”, please note, not “them”; “have”, not “had.”)

As a middle-aged man, a parent and educator, with over four decades of activism and educational work under my gradually-expanding belt, I am well aware that generational shifts are nothing new. Heck, this piece starts with Bob Dylan setting out the challenges in 1964, when I wasn’t yet at school. My teenage years saw punk rock announce a revolutionary reboot for popular culture: many successive waves of cultural and political change have happened since. History just keeps on happening.

Which of our old ideas and ambitions are now like bricks in the pockets of the young, and which can perhaps help offer ways out of the wreck?

The prospect of imminent nuclear catastrophe that haunted my childhood and adolescence has now been replaced by another huge existential crisis: climate catastrophe and its attendant impacts on the biosphere (including humanity). Once more, the young, the real

Gretas and the fictional Tigs, are visible at the leading edge of historical change.

So how, this time, do experienced educators best respond? Do we best get out of the new road ... or can we lend a hand? Which of our old ideas and ambitions are now like bricks in the pockets of the young, and which can perhaps help offer ways out of the wreck?

I recently came across an environmental education project, breezily showing young people how to make recycled tote bags. I remember being involved in just such a project in 1999. It seemed a good idea then, but when does a good idea like this hit its expiry date, or do some good ideas always stay good? I’m genuinely not sure. What would Darwin say?

“Please, no more! Anything but the SDGs!”

When she finished her ‘A’; levels, one my nieces memorably announced on Facebook “Hurrah – no more global dimensions!” A few weeks ago, a European colleague told me of pupils with environmental education-fatigue: “Please, no more! Anything but the SDGs!”. Even allowing for a certain rhetorical element, I find these utterances more than a little provocative. Of course, not every young person is a Greta or a Tig, but sometimes too, well-intentioned schools and programmes can kill-off interest as well as engendering or nurturing it. How do we best understand such comments and really hear what is being said?

Such critical questions seem to have gained an extra edge, even edginess, at this oh-so critical moment for humanity and the non-human world. Not all of those questions will be easy, but now seems to be a good time to set aside the bricks, clamber out of the wreck and do some seriously unsheltered thinking ... while the light still holds.

NAEE is celebrating its fiftieth anniversary, which to my mind means asking a great many questions about the future as well as celebrating the best of the past. A middle-aged birthday means recognising that the world will be lived-in by a fresh set of faces: it will be them that will take the decisions, make the choices, experience the frustrations and the fun.

It’s a good time to make bold plans.

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Ben Ballin is a primary geography consultant and a Fellow of NAEE. He can be contacted at: benballin@hotmail.com

The DfE’s Sustainability and Climate Change Strategy

The much-anticipated DfE Sustainability and Climate Change Strategy was launched in April and NAEF commented extensively on the document.

This is what DfE had to say when it translated its Sustainability and Climate Change strategy into a formal [policy paper](#):

“DfE has an important role to play in all aspects of sustainability. But the area in which we have the most work to do is reducing our environmental footprint, particularly in the drive to achieve net zero. While the policies set out here are focussed on the environmental aspect of sustainability, this is done with consideration for how those policies will interact with the social and economic aspects of sustainability. The UK government and the devolved governments (Northern Ireland, Scotland and Wales) are committed to climate action, and we will work together in our international action. The targets and strategic aims set out relate to England. It brings together short, medium and longer-term actions that will enable us to make progress towards achieving our 4 strategic aims and overarching vision. It is a strategy to 2030. Action will be reviewed and updated annually to respond to new opportunities, scientific updates, evidence and data.”

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In an April blog for us, **Richard Dunne** asked whether the strategy addresses the problems we face.

As the DfE launches its Sustainability and Climate Change draft [strategy document](#), it is a good time to ask whether this is really the solution to the major and urgent crises we face from climate change to biodiversity loss to the pandemic and major concerns around mental health. If we are to properly address these challenges, surely we need a new way of learning, one that puts an understanding of the natural world and how it works at the heart of our work. The current education system does not do that, and unless we rethink what we learn and how we learn, we are potentially likely to continue to create the problems we are trying to fix.

“My concern is that what Nadhim Zahawi is proposing is a knee-jerk reaction to having something on climate education in the curriculum when we actually need a much deeper review around what we are educating for.”

We need buildings to be carbon neutral within tight, but realistic timescales. We need the climate

emergency and ecological crisis to be taught in schools and these issues can, of course, be worked into the curriculum and in particular science.

My concern is that what Nadhim Zahawi is proposing is a knee-jerk reaction to having something on climate education in the curriculum when we actually need a much deeper review around what we are educating for. We surely now need to be rethinking the way we learn in order to create something much more holistic. We will only properly address the issues highlighted with a much more coherent way of learning that frames the issues around projects that draw together subject skills and knowledge and apply them in relevant ways to the school and wider local / global context.

We have to rethink how we educate and what we are educating for. This needs a much deeper conversation beyond the training of teachers and educators to provide a better education around the climate emergency, whilst acknowledging this is important.

The climate emergency has come about from a complete lack of understanding of what we need to do and how we need to be to live sustainably. Yes, we need the practical elements of improving our buildings and introducing the climate emergency and sustainability into the curriculum, but I don’t think this is enough. We have to rethink how we educate and what we are educating for. This needs a much deeper conversation beyond the training of teachers and educators to provide a better education around the climate emergency, whilst acknowledging this is important. I think this should be included or we will not change the way we educate for a sustainable future we are still so far from achieving.

We certainly need to fix the problems, but we also need to start talking about a different way of learning to live that doesn’t continue to create them! At the moment, it feels as if we still view the problems as somehow separate from us, when we are an integral part of the systems we are destroying and need to reconnect to our place in nature if we are to achieve the goals we aspire to.

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Immersive learning: a Froglife approach to environmental education

As of 2022, we have engaged with 2,650 children through school outreach programmes in London over three years. There has been something in common across these schools – most of the children had never seen frogs or toads or newts in real life. Most teachers also reported not having seen any since childhood. This is as expected, although surprising once you realise that 10 of the 14 native reptile and amphibian species can be found in the Greater London region. Whilst population decline is certainly a contributing factor, the reason for this is perhaps our disconnect from the green spaces we share with our native wildlife.

Froglife is a national wildlife charity committed to the conservation of reptiles and amphibians; and saving the habitat on which they depend. Our London Tails of Amphibian Discovery (T.O.A.D) project focuses on doing this within the urban landscape.

There are three avenues through which we aim to repair this broken bond, and in turn conserve these species:

1. *Visit freshwater habitat*
2. *Toad Tails: a play about Common toad (Bufo bufo) population decline*
3. *Swimming with Toads: using imagination and immersive play to teach freshwater ecosystems*

Visit freshwater habitat

Bringing the classroom outdoors encourages children to explore with all their senses. With guidance, they begin to make connections in-situ about what affects these habitats, and in turn the animals that call them home.

Imagine a concrete pavement surrounding a park pond on a scorching hot summer day. The children out on a ‘field trip’ stand on the other side of the pavement and we ask them to use the back of their hands to quickly feel the temperature of the concrete. When told that we’re lucky we don’t have to feel that on our feet because we have shoes, the children quickly make the connection that these pavements are not wildlife friendly and are obstacles for amphibians to reach the water. Sitting in long grass followed by sitting in shorter grass helps them understand why our overly manicured parks do not provide the shelter that frogs, toads, and newts need to safely traverse these landscapes.

A pond dip allows them to see that there is more life underwater than what is seen at first glance. That their murky park or school ponds are booming with secrets and life. The awe and wonder of seeing a smooth newt for the first time, whilst it hunts in a pond dipping tray

is something that they will never forget. Harnessing the power of these experiences through visceral learning ensures that aspects of the science curriculum such as habitats, metamorphosis and food chains are engrained in memory. Furthermore, forging a bond between each student and these green spaces.

Toad Tails

Toad Tails is a short play about toads during their annual migration to their breeding ponds. Their way has been blocked by the development of a road, mirroring the 68% decline that common toads have experienced within the last 30 years because of road mortality. Each child takes on the role of a toad, other animals such as a predating heron, or a toad patrolling human. The Toad Tails programme is split into three parts, allowing for three visits. We teach the children about the species, the threats that they face and then we assign roles within the play, which concludes with the final performance to another year group.

Feedback for Toad Tails has been overwhelmingly positive with children loving the chance to do something different. It introduces an element of fun to the tough topic of species decline, which may seem counterintuitive at first, but the excitement of the play encourages the students to share what they are learning with families and friends. It provides the opportunity for them to thrive in a different setting, exploring a different set of abilities through drama.

Swimming with toads

These sessions don’t involve literally swimming with toads! Instead, swimming pools are converted to mimic pond habitats using diving sticks, toys, and floats. Children play a series of games where they use imagination to become frogs and toads. The water creates an immersive learning experience where they can strengthen their swimming skills whilst solidifying elements of the science curriculum. For example, the game ‘Bulldog’ is altered to represent frogs trying to escape the grasp of their deadly predators the grass snake. Amid all the fun, they aren’t even realising that they are learning food chains, life cycles and competition for resources – until of course, they are tested at the end!

At Froglife, having educators from an array of backgrounds is an asset. It results in innovation when it comes to the way we deliver environmental education, with the hopes of bringing these creatures back to the forefront and creating lasting change.

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Emily Robinson is an environmental educator for Froglife. She delivers sessions both indoors and outdoors for all age groups. More information: froglife.org.

OCR's Natural History GCSE

After much delay within the DfE the go-ahead was finally given for OCR's GCSE in Natural History. This was announced at the launch of the Department's sustainability and climate change strategy in April. Opinion remains divided. In what follows, we try to give a flavour of the discussion.

There are lots of positive voices. For example:

Conservationist and wildlife writer **Kabir Kaul**, aged 15, said: "In a time where we face climate and ecological crises, and rising eco-anxiety in young people, a Natural History GCSE will give my generation the knowledge and practical skills they need to value and protect the environment around them. I am hopeful and optimistic it will give many of them the confidence to make a difference for the natural world for decades to come."

The Urban Birder **David Lindo** said: "A lifetime's dream has finally come to fruition. Hopefully, our future leaders will now have a more balanced view on how to keep the world safe for us all." For additional positive views, [there's this](#).

A more challenging perspective comes from NAEF: "The new natural history GCSE will offer young people a chance to develop a deeper knowledge and understanding of this amazing planet, its environment and how to conserve it', this will sadly only apply to a minority of the cohort whereas a lot of people (including NAEF) want all young people (and hence society at large) to benefit from courses like this. Being optional is bad enough, but worse follows: the fact that a GCSE exists will mean that making the non-optional science GCSEs (especially biology) fit for the 21st century may well become much more difficult. As a result, it will be likely ... that most young people in schools today will continue to be short-changed." [You can read more about what we said about this here](#).

And this from **Melissa Glackin** and colleagues: "Rather than call for a new GCSE, we are advocating that effort be directed towards developing and promoting new schemes of work for both biology and geography, at both KS3 and GCSE level, which take as their foundation key Natural History themes. We note that the KS3 geography curriculum, for example, provides schools with a significant degree of autonomy and flexibility in the way that the curriculum is implemented and enacted. Schemes which support many of the themes outlined in the OCR proposal could be readily adopted and delivered to students within the subject of geography and also within science." – [You can read more here](#).

And this from **Justin Dillon**: Zahawi, is quoted as saying that "sustainability and climate change are the

biggest challenges facing mankind." One might expect that, if he actually wanted to do something to help, that he would ensure that all children would study environmental and sustainability issues to the depth this new GCSE promises. But that's not the case. The course, which will not start until 2025, will be optional, and will compete with very popular and well-established GCSEs in biology, chemistry and geography. This new GCSE will struggle to gain a foothold in an already crowded curriculum.

If Zahawi is serious about the need for young people "to gain a deeper knowledge of the natural world around them" – then he needs to ensure that all subjects in the school curriculum address environmental and sustainability issues. To do otherwise is to betray another generation of young people by providing an education that, by his own admission, does not do enough to prepare them "to develop a deeper knowledge and understanding of this amazing planet, its environment and how to conserve it." – [You can read more here](#)

And this from **Mary Colwell**, the author and activist who did so much to bring OCR's natural history GCSE to fruition: "Imagine being so unaware of your own home that you don't notice a thief coming night after night and taking things. It starts with a precious vase, a family heirloom, then the toolbox under the stairs is gone. After a while the bookshelves starts to thin out, all those useful reference books – the novels, poetry anthologies, the books from childhood and the favour-ites you like to dip into in the evenings – all that repository of intrigue, beauty and mystery disappear one by one. After a while the paintings on the walls start to vanish. You don't notice any of this immediately, though, because everyday life distracts your attention. You might get a feeling that it is emptier, less colourful and interesting than it used to be, that there are fewer things to bring back memories or give you joy, and it is annoying you can't find useful stuff sometimes, but it still works OK, and anyway, you can buy more. It is only when then the carpets, chairs, tables and kitchen equipment disappear that you realise there is a crisis. Your home is now too difficult to live in, too much has gone, and even though you realise that it is your carelessness and lack of awareness that has caused it, and you secure the doors and windows, it's too late, your home is a shell. The thief or thieves now start on the roof and the walls... Ok, it may seem like a far-fetched and imperfect analogy, but it makes the point. The house is the Earth, the thieves are climate change, agricultural policies, insensitive developments, extractive industries and so on. The precious objects are wildlife. One by one they are disappearing from the Earth, but not many people notice." [You can read more here](#).