



A NEW STRATEGY AND ACTION PLAN FOR EDUCATION FOR SUSTAINABILITY (EfS)

May 2021



McCreanor Murray Rose
Expert Collaboration

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UNESCO Getting Climate Ready – A guide for Schools on Climate Change
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UN Convention on the Rights of the Child – UN Framework Convention on
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NI Executive Programme for Government Draft Outcomes – 25 January 2020 –
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Teachers Professional Learning Framework Project Final Report (March 2019)

Net Zero Review December 2020 – Primary Curriculum (Document Reference,
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Net Zero Review December 2020 – Post-Primary Curriculum (Document
Reference, Existing Teacher Training Practice in NI, NI Strategy
Recommendations)

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DEFINITION OF TERMS & ACRONYMS

CCEA	Council for the Curriculum, Examinations and Assessment
CPD	Continued Professional Development
DEL	Department for Employment and Learning
DE	Department of Education
EA	Education Authority
EE	Environmental Education
EEfS	Environmental Education for Sustainability
EfS	Education for Sustainability
EPD	Early Professional Development (the period of two years following induction)
ESD	Education for Sustainable Development
ESDF	Education for Sustainable Development Forum
HEI	Higher Education Institution
ITE	Initial Teacher Education
MDG	Millennium Development Goals
NI	Northern Ireland
OECD	Organization for Economic Co-Operation and Development
SD	Sustainable Development
SDG	Sustainable Development Goals
SDP	School Development Plan
TPL	Teacher Professional Learning A collective term agreed with stakeholders that refers to the current phases of initial, induction and continuing professional development for teachers.
UN	United Nations

NORTHERN IRELAND ENVIRONMENT LINK (NIEL)

VISION

A valued, resilient, healthy environment.

MISSION

To be a collective voice promoting the importance of environmental issues through influencing policy and developing partnerships for a healthy environment.

Throughout the planning process we constantly referred to our Vision and Mission and felt that these were still fit for purpose, effectively summarising our core aims.

CHARITABLE OBJECTIVES

NIEL registered with the new NI Charity Commission in 2014, and as part of this process we updated our Constitution including our Charitable Objectives.

- Advance, for public benefit, environmental conservation, protection, improvement and sustainability.
- Raise awareness of environmental issues by providing a forum for exchange of ideas and promoting a collective voice
- Advance the education of all sections of the public in environmental and ecological science

Northern Ireland Environment Link (NIEL) is the networking and forum body for environmental charities and groups in Northern Ireland. NIEL is a strategic organisation, which aims to bring the environment sector together to speak with one voice on issues which affect everyone in Northern Ireland.

NIEL provides a single point of contact to its diverse network of 60+ Full Members and 30+ Associate Members, working in urban and rural areas across Northern Ireland. We bring together a wide range of knowledge and expertise on environmental issues and policy. We work to inform regional, national and international policy that can impact on the natural and built environment. Our key policy areas reflect the diversity of our membership and include agriculture; biodiversity; built environment/heritage; climate change; energy; planning; education, ecosystem services/natural capital; marine and freshwater environments, and transport.

NIEL also supports and delivers a number of projects and programmes that enable us to raise awareness of environmental issues with a range of stakeholders and that offer practical support to our members.

The environment sector in NI is diverse, has a range of experience and many interests. NIEL aims to bring this wealth of knowledge together, and help raise the capacity of the organisations and sector to achieve more than the sum of our parts. We believe that for the environment in NI to flourish, we need a sector which is connected, resilient and visible.

HOW WE WORK

Partnership working is fundamental to the NIEL operating model. Working with our members and other key partners, NIEL undertakes a ranges of core activities, including:

- Leading and coordinating cross-sectoral task forces and working groups
- Co-ordinating sectoral engagement with government
- Development of policy positions on a range of environmental issues
- Horizon scanning and raising awareness of environmental issues
- Communicating research, ideas and policy to relevant audiences
- Development and delivery of practical projects to benefit our members
- Provision of other member services
- Organising events, conferences and seminars

As well as our enabling role, we also help make strategic connections within the sector, between the sector and government, and with other sectors interested in the environment in Northern Ireland.

WHO WE WORK WITH

NIEL delivers the vast majority of its work in partnership with its members. We regularly work with our network of sister organisations in England, Scotland and Wales through the Environment Links UK Forum. The four Links have regular teleconferences, an annual in-person meeting, and host a joint conference every two years. We similarly have a close working relationship with the Irish Environment Network/Irish Environmental Pillar in the Republic of Ireland. In recent years the importance of these partnerships has really developed and proven its worth during the Brexit process.

NIEL is increasingly working more widely with other 3rd sector organisations to raise the profile of the environment. We have developed strategic relationships through our work on Space & Place and the Northern Ireland Open Government Network. We are also forging new relationships through our work on the UN Sustainable Development Goals. In recent years we have gained traction with new partners through our work on Ecosystems Services and Natural Capital and we are actively engaging at local authority level through the Climate NI Network. We have developed strong relationships with umbrella-type 3rd sector organisations like Community Foundation NI, Building Change Trust, Rural Community Network and of course, NICVA itself. Indeed, the NIEL CEO has been a member of the Joint Forum between the voluntary sector and government, since 2017.

As a result of involvement in a range of fora on post-Brexit policies NIEL has started to forge links with a range of organisations in the agri-food sector, including the Ulster Farmers' Union and the NI Food and Drink Association.

Indeed, the Brexit work programme has particularly highlighted the importance of our connections with Government. Over the past few years our connections with Central Government have expanded (through activity around Climate Change, SDGs, Open Government, Historic Environment etc.) and NIEL is increasingly seen as a key two-way interface with the sector.

EXECUTIVE SUMMARY

Northern Ireland Environment Link (NIEL) manages the Education for Sustainable Development Forum (ESDF), which brings together organisations that run environmental and outdoor learning programmes. The sector, supported by DAERA, were keen to review the range of provision, identify the strengths and gaps, and create a new long term strategy for the entire sector. This strategy focuses on formal education and includes consideration of how environmental learning programmes support formal learning at all levels.

NIEL engaged McCreanor, Murray and Rose to assist in the development of “A New Strategy and Action Plan for Education for Sustainable Development in Northern Ireland”. The work has included:

- Researching other models of sector organisation and support across UK, Europe and internationally.
- Surveying the environmental education sector in Northern Ireland to ascertain how organisations are faring at present, and specifically identifying the stresses, difficulties, overlaps, good practice and exemplars within.
- Consulting with educators and ‘learners’ within the sector and wider community to better understand how they plan to change to meet future demands. We will then be better able to judge how to support them with their future hurdles and resource needs. This must include engagement with children and young people.
- Developing a new strategy and action plan to bring further cohesion, standards and support to the sector. The current learning offering has developed in a piecemeal way over a long period of time, there is an opportunity to develop a more joined- up approach.

KEY FINDINGS

It is clear from the research that education needs to focus more on understanding complexity, empathy and self/mutual understanding through transdisciplinary perspectives so that we can meet the future more sustainably. Central to this strategy is the consideration of what education for a sustainable future must offer to our children and young people and how our existing practice must be reconsidered and reframed to ensure that we collectively move our societies to more environmentally considered lifestyles.

Quality EfS requires three key elements for success, it must be about, through and for sustainability. **Education about sustainability** ensures learners develop knowledge and understanding about the environment and sustainable development, beginning with local, extending to an understanding of wider global issues. **Education delivered through sustainable practice** allows children and young people to experience sustainability as modelled around them in school curriculum, culture, community and campus, and is reflected in both ethos and policies. **Education for sustainability** develops positive attitudes and behaviours towards the environment and sustainable development alongside action and advocacy for wider change.

Teacher training and Teacher Professional Learning should offer: **Enabling contexts** that orientate the individual to a need or problem as the starting point of a learning process. **Resources** that encompass all source material with potential to support learning. **Tools** through which individuals interact with resources and act. **Scaffolding** which supports learning efforts within an open learning environment.

Education for sustainable development is compulsory in all curriculum subjects in the Northern Ireland curriculum. To support EfS across the curriculum further training and guidance would be beneficial. EfS as a standalone subject (in conjunction with a cross-curricular presence, not as an alternative) should also be considered.

Areas for Action

The strategy has identified 6 areas for action, namely:

1. Resourcing
2. Teaching and learning
3. NGO resources and activities offered through outdoor learning and site visits
4. Cooperation to deliver on wider education initiatives
5. Opportunities for NGO Partnership and collaborative working
6. Initial teacher education and teacher professional learning

Recommendations to address the 6 areas identified include:

- Allocate staff and resources to implement action plan
- Develop a one-stop-hub for Northern Ireland educators which is easily accessible and regularly updated
- Provide opportunities for educators and students to participate in NGO work placements
- Cooperate across the sector to research, advocacy and delivery of EfS and Action for Sustainable development
- Provide Training Opportunities for NGO staff to embed EfS more widely through their educational offerings
- Create more positive framing around environmental discourse demonstrating positive solutions and actions
- Provide EfS training workshops for educators
- Create EfS resources which are in line with curriculum requirements

This Strategy and Action Plan is divided into six main sections intended to offer background, environmental and sustainable pedagogies; strategies, best practice and case studies; background to NI specific research (summary of results) and finally strategy recommendations and action plan:

1. Background: Reviewing foundational intentions of the strategy development process and the Northern Ireland Context
2. Environmental and sustainable pedagogies: A review of the development of Environmental Education (EE) and Education for Sustainable Development (ESD); Seven Complex Lessons in Education for the Future; Education for Sustainability (EfS); EfS Teacher Competencies
3. Strategies, best practice and case studies: Global strategy and best practice examples; policy and strategy review of England, Scotland, Wales and the Republic of Ireland; global best practice examples
4. Background to NI specific research (summary of results): Northern Ireland interviews and survey results
5. Recommendations and Action Plan
6. Appendix: This final section includes CCEA KS 1-4 curriculum links and a series of tables to be used as a tool, they align existing curriculum and the Recommendations with various policy and strategy documents. The intention of this inclusion is to assist NGOs in the sector

to align their educational offerings with relevant policy and strategy to assist them in seeking funding and discussing how their services meet curriculum requirements with educators and institutions. Equally the decision to include a bibliography rather than just references was taken to assist NGOs to find relevant documents to support their work.

KEY LEARNING AREAS

There are a number of key learning area themes and which are explored in this strategy document alongside recommendations and action plans. Below, in broad terms, the following themes are addressed in this strategy document.

COLLABORATION

There are a wide variety of organisations offering environmental experiences for children and young people in Northern Ireland but there is a need for more collaboration between NGOs as well as between NGOs and educational institutions and youth services.

TRAINING

Many NGOs in the sector could benefit from a better understanding of curriculum requirements and how their services can meet and compliment curricular needs.

Teacher training and Teacher Professional Learning needs to make Education for Sustainability (EfS) a priority.

Action and ability to impact environmental issues such as biodiversity loss and climate change need to be stressed. There needs to be a shift from more traditional problem-focused to solution-focused materials and activities.

NORTHERN IRELAND CURRICULUM

EfS needs to occur across curricular subjects and topics. It would also benefit from existing as a standalone subject (in conjunction with a cross-curricular presence, not as an alternative).

OPPORTUNITIES

Today's children and young people are constantly exposed to climate change and the ecological crisis: reflected in this generation's swell of interest, concern and anxiety about environmental issues.

The climate crisis is at the forefront of global consciousness: The Paris Climate Agreement is frequently referenced in the media raising general public consciousness.

Media attention has increased: Natural catastrophes such as volcanic eruptions, human caused activities e.g., plastic pollution and climate change, the current pandemic and species extinction are now mainstream topics. The media are including climate and environmental topics more often and even dedicating shows exclusively to climate (two examples are the Sky News Daily Climate Show and an increasing number of environmental documentaries on platforms such as Netflix). The upcoming COP 26 in Glasgow is receiving substantial mention both in Parliament and in general news coverage.

FOUNDATIONAL INTENTIONS OF “A NEW STRATEGY AND ACTION PLAN FOR EDUCATION FOR SUSTAINABILITY (EFS) IN NORTHERN IRELAND”

The proposed NI Environmental Education Strategy is built upon the following **Seven Intentions**¹:

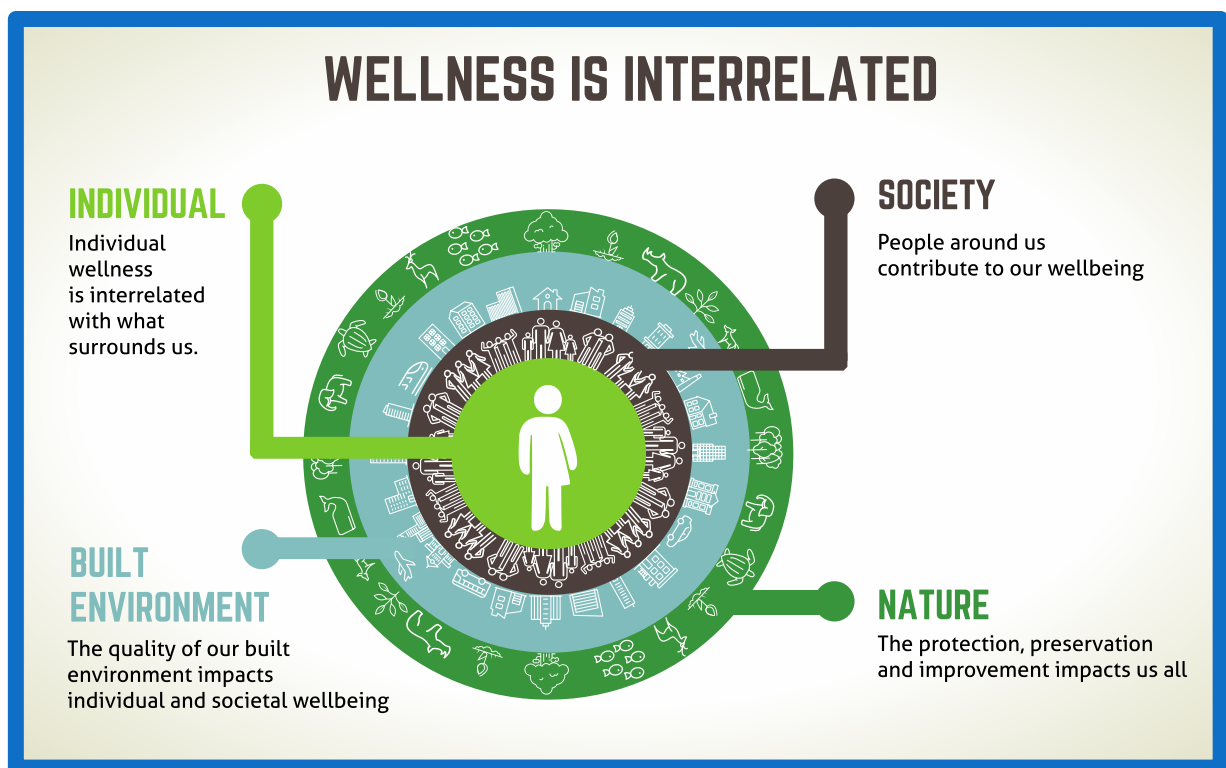
1. **Results Based Accountability** (Friedman, 2015): Working backwards from the Vision Statement, we have considered the best route to ensuring that the recommendations can be properly evaluated whilst offering opportunities for continued self-evaluation and assessment on the part of teachers, schools and educational authorities.
2. **Consciousness that we need to teach conservation** of consumable products. Students need to understand the finite nature of resources on our planet. Teaching and learning should include an understanding of where resources come from, how they get to us and what happens once we are finished using them. The wide-ranging impacts of overconsumption should be coupled with ways to counteract over consumption through conservation and recycling etc.
3. **Recognition that nature is often non-linear.** We need to understand the complex interconnected relationships on our planet and teach that nature is filled with non-linear relationships. For example, ecology, which focuses on understanding the distribution and abundance of life on Earth, is a complex, nonlinear science. Only presenting our young people with oversimplified examples such as ‘recycling one glass bottle saves x litres of water’, deprives them of understanding the complex integrated relationships which govern life on Earth.
4. **Local focus with global consciousness.** Local examples provide a rich collection of opportunities for students to understand the complexity of environmental systems. Focussing on their own school grounds, surrounding community or across Northern Ireland, students can then apply these lessons learnt locally, to global climate and environmental issues. Local context studies develop students' personal ‘sense of place’ connecting what they learn with their own everyday experiences and decisions. Bridges between local studies and global issues empower students to help them recognise the relevance of the global environment in their everyday life, lighting the spark that can lead to both individual and collective action.
5. **Solutions-Focused:** Building local-to-global connections promotes solutions-focused thinking. Focusing solely on problems, tends to lead to a sense of overwhelm, that the issues we face appear too big to solve. Local to global connections however provides frameworks for thinking about issues and provides opportunities to practice environmentally conscious behaviours first-hand. Local study and engagement demonstrate the explicit connections between local environmental challenges and larger issues, e.g., scaling conservation of water in an individual's daily life to conservation of water by a whole school, local, national or international communities. Consideration of local roadblocks to environmental protection and subsequently finding ways to address these provides real life opportunities for stewardship and conservation.
6. **Recognising the importance of citizenship** and of teaching students how governments work and the role they have to play to effect change within a given socio-political structure.

¹ Developed by McCreanor Murray Rose

Understanding how “the system” works will assist subsequent generations to influence, challenge and change legislation and policies to be more conservation and environmentally minded.

7. **Cultivating critical thinking** is key to equipping young people to evaluate complex information and make decisions about existing and unimagined solutions to environmental challenges. Fostering this type of literacy means that students will develop conceptual tool kits that can be applied not only to the environment but to other complex issues like history, politics and cultures. We must equip our young people with the ability to ask questions, identify assumptions, and make well-reasoned decisions, otherwise we will be left with a population that are unable to engage as active citizens.

The Seven Intentions above provide the skills and guidance for a comprehensive understanding that human wellness is interrelated with our environment



The Department of Education (DE) is a devolved government department in the Northern Ireland Executive. The department's overall vision is "to ensure that every learner fulfils her or his potential at each stage of development". Its key stated priorities are: Raising standards for all; closing the performance gap, increasing access and equality; developing the education workforce; improving the "learning environment"; and transforming education management. The department is responsible for the following levels of education;

- pre-school
- primary
- post-primary
- special

Higher and further education is the responsibility of the Department of the Economy. The Department of Education also covers:

- youth policy
- community relations within and between schools
- teacher education and salaries

As an organisation, its key functions include advising the minister on the determination of education policy, framing legislation, accounting for the effectiveness of the education system, allocating, monitoring and accounting for resources.

Through the Education and Training Inspectorate (ETI), it evaluates and reports on the quality of teaching and learning and teacher education. Administration of the education system is delegated to a single combined authority, funded by the department that is the Education Authority (EA).

The EA is a regional body with responsibility for the provision and delivery of education and youth services. The EA has a statutory duty to deliver and implement DE and Department of the Economy's policies and to develop strategies which help to improve the education system. Previous to the EA's creation in 2015, this support was delivered through 5 Education and Library Boards.

According to the EA's Interim Strategic Plan 2017-2027, the EA commits to "play an important role in shaping the future of Northern Ireland" and to be guided by the NI Executive Programme for Government's Strategic Outcomes "which will describe the society we wish to create for the benefit of all". (Education Authority, 2017) In the Strategic Plan they also commit to working towards the success of Northern Ireland by:

"educating and equipping our young people to reach their full potential as citizens. In all of our efforts we will aim to contribute to the establishment of an equal flourishing society which contributes to the wider needs of all. We will also endeavour to contribute in a positive way, to the health, development and wellbeing of all children, young people and the communities in which they live." (Education Authority, 2017)

The Recommendations outlined in this document support the strategic direction and intentions as stated in the EA Interim Strategic plan alongside many other international, regional and nationwide policies and studies specific to the Northern Ireland context.²

² See the Appendix for Key Stage 1-4 "Big Picture" for further information as to how Strategy Recommendations align.

Since 2007 ESD has been a statutory requirement within the school curriculum. It is one of the key overarching curriculum objectives under 'developing the young person as a contributor to the economy and the environment' and as such is a compulsory element across the curriculum.

Education for sustainable development is compulsory in all curriculum subjects. ESD must be taught in a range of relevant contexts including core learning in every subject. This requires teachers to clearly outline the connections between different areas of the curriculum using real life issues, scenarios and problems. Participatory engagement develops the skills and capabilities, as well as knowledge and understanding, enabling pupils to make responsible decisions and choices throughout their lives.

A review conducted by the Education and Training Inspectorate (ETI), titled "Effective Practice in Education for Sustainable Development in a Sample of Primary, Post-Primary and Special Schools in Northern Ireland" (February 2010) highlighted the need for strong and inspirational leadership alongside a whole school commitment to ESD to ensure that it was effectively embedded in curriculum delivery.

In Jan 2011 the DE published guidance on how schools might address ways to promote ESD through the school's teaching and learning, leadership and management and engagement with its community, entitled, 'Every school a good school – school development planning- education for sustainable development' (Annex G). This guidance states that 'Schools are strongly encouraged, in preparing their school development plan, to address ways in which they might promote sustainable development through the school's teaching and learning, leadership and management and engagement with its community'. It goes on to say that ESD is more than environmental and citizenship education. The focus is on a concern for people and, in the context of schools, encompasses:

- Curriculum – motivating and equipping young people with the knowledge, skills and understanding to make informed and responsible decisions, promote healthy lifestyles and progress to future education and employment;
- Campus – the construction and operation of the school's buildings, its internal and external environment (including to support the delivery of the curriculum), and the management of its resources (E.g., waste management, energy efficiency, procurement procedures, fair trade, active travel); and
- Community links – addressing the school's relationships with its local community such as working in partnership with other schools, colleges, business, community groups, and voluntary and statutory agencies, for example through extended services and the community use of school premises.

Schools can therefore provide an exemplar of sustainable development in action, helping to build coherence among a range of school policies and practices for the benefit of children and their families (education-ni.gov.uk/sites/default/files/publications/de/annex-g-sustainable-development-revised%20%281%29.pdf). This guidance was, however, not made mandatory.

In the Northern Ireland Executive Sustainable Development Strategy Implementation Plan 2011-14, 'Focus on the Future', the Department of Education committed to ensure that provision of learning and skills would respond "to the needs of the low carbon economy" whilst acting as the lead department in extending the "implementation of sustainable development within all schools and other educational establishments". In this document the DE states that ESD has a critical role to play in delivering these objectives. (UK National Commission for UNESCO, 2013)

In 2020 the DE announced that they were launching an 'Independent Review of Education in Northern Ireland', this review is one of the key commitments in the 'New Decade, New Approach' agreed by the NI Executive in January 2020. Peter Weir MLA, Minister of Education whilst discussing the purpose of the review stated that there "is wide-ranging and there is potential, with Executive agreement, to radically reshape the design and delivery of education provision [in Northern Ireland]".

This Review should be completed by mid-2022 and presents opportunities to ensure EfS is embedded and delivered across the curriculum with confidence and commitment by educators at all levels.

SOME EXISTING SCHOOL INITIATIVES AND RESOURCES IN NORTHERN IRELAND (NON-FORMAL)

UNESCO's Associated Schools Project Network (ASPnet): A global network of 10,000 schools in 181 countries, committed to promoting UNESCO's ideals of peace, international understanding, intercultural dialogue and sustainable development through developing innovative educational content, pioneering new teaching and learning approaches and collaborating across the globe. There are 188 UK schools participating with a number of them located in Northern Ireland, the Wallace High School in Lisburn was highlighted in February 2021 for its ASPnet project "Trash Hackers". (www.unesco.org/new/eng/education/networks/global-networks/aspnet/)

Eco-Schools: Globally Eco-schools involve around fifteen million pupils in 59,000 schools in 68 countries. The Eco-School programme is pupil-led, involves hands-on learning and seeks to engage whole-schools and wider communities in environmental projects. (www.eco-schoolsni.org) All schools in NI are registered with Eco Schools. Whilst many are actively engaged others are less so, particularly post-primary schools.

Fairtrade School Awards: As part of the Fairtrade Foundation (UK), schools can work towards becoming Fairtrade Schools. Achievement of the Fairtrade School Award requires schools to look at global issues such as, where their food comes from and how we are all connected to people around the world. They are also tasked to learn other skills, including teamwork, co-operation, lobbying skills and organising fundraisers. (www.fairtrade.org.uk)

Connecting Classrooms through Global Learning (CCGL): Helping students to understand the big issues that shape our world and equip them with the knowledge, skills and attitudes they need to make a positive contribution. Connecting Classrooms through Global Learning is a partnership between the British Council, The Foreign, Commonwealth & Development Office and UK Aid. In Northern Ireland the CCGL programme is delivered by the Centre for Global Education. (<https://www.globallearningni.com/connecting-classrooms>)

Other whole school programmes include UNICEF's Rights Respecting Schools (<https://www.unicef.org.uk/rights-respecting-schools/>), Nurturing Approaches in Schools Service (<https://www.eani.org.uk/school-management/nurturing-approaches-in-schools-service-nass>) plus a range of other initiatives and policies such as healthy eating, litter-free lunches have scope to incorporate EfS.

POLICY AND LEGISLATIVE OPPORTUNITIES TO SUPPORT THE NEW STRATEGY AND ACTION PLAN FOR EDUCATION FOR SUSTAINABLE DEVELOPMENT IN NORTHERN IRELAND

There are a number of international, national and regional strategies, policy recommendations and studies which support the recommendations found within this document. Many of those listed have been juxtaposed with existing NI curriculum requirements alongside the recommendations of this strategy. Relevant complimentary opportunities include:

- Net Zero Review
- Programme for Government - NI Executive (2021)
- Learning Leaders: A Strategy for Teaching Professional Learning (2015)
- The Paris Climate Agreement (2015)
- DEARA Knowledge Framework – Department of Agriculture, Environment & Rural Affairs (2017)
- NI Skills Barometer 2019 & Skills in Demand – Department of the Economy and Ulster University (2019)
- DEARA Environment Strategy for Northern Ireland Discussion Document (2019) – Department of Agriculture, Environment & Rural Affairs
- Teachers Professional Learning Framework Project Final Report (March 2019)
- OECD Skills Strategy Northern Ireland (2020)
- The Ten Point Plan for a Green Industrial Revolution: Building back better, supporting green jobs and accelerating our path to net zero (2020)
- Evaluation of Success through Skills – Transforming Futures, Department for the Economy (2020)
- Climate Action Plan for NI Councils– Friends of the Earth (2020)
- New Decade, New Approach – NI Executive (2020)
- NICCY Advice on the Environmental Strategy for NI (2020)

A BRIEF REVIEW OF ENVIRONMENTAL EDUCATION AND EDUCATION FOR SUSTAINABLE DEVELOPMENT

In order to develop the Recommendations, consideration was given to Environmental Education and Education for Sustainable Development. We sought to identify their underlying principles and to distil from them best practice, frameworks and approaches. An understanding of the history and development of these terms as well as their approaches will assist in the delivery of actions needed to meet the Recommendations as outlined.

WHAT IS ENVIRONMENTAL EDUCATION (EE) ABOUT?

THE HISTORY OF EE

Concerns regarding human interaction with nature have been expressed in the discourse of poets, politicians and social commentators for centuries. Much of what was considered fell within the more direct realm of resource conservation and habitat preservation. Environmental education addressing quality, awareness and consumer choices were not generally debated prior to the late 1940s and this debate did not reach wide attention until the environmental movements of the 1960s. (Kline, 2007). The Conference for the Establishment of the International Union for the Protection of Nature (IUCN) was held in Paris in October of 1948 and its top priority was the protection of nature and habitats. From that year onwards there were a number of UNESCO conferences addressing environmental issues, but as mentioned, popular attention to the issue did not really come to the fore until the 1960s. The momentum carried forward into the 1970s, demonstrated well by the 1972 United Nations Conference on the Human Environment held in Stockholm. The conference produced 26 principles with principle 19 stating:

Education in environmental matters, for the younger generation as well as adults, giving due consideration to the underprivileged, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension. It is also essential that mass media of communications avoid contributing to the deterioration of the environment, but, on the contrary, disseminates information of an educational nature on the need to protect and improve the environment in order to enable man to develop in every respect. (United Nations, 1972, p. 11)

While environmental education as a concept was developing as early as immediately after World War II, it was the 1970s that saw real progress for EE. After the 1972 Stockholm Conference a concerted push to advance EE internationally was supported by two subsequent conferences. The first notable event was the *International Workshop on Environmental Education* which gave birth to The Belgrade Charter, which produced a global framework for environmental education, the charter stated that:

Environmental education, properly understood, should constitute a comprehensive lifelong education, one responsive to changes in a rapidly changing world. It should prepare the individual for life through an understanding of the major problems of the contemporary world, and the provision of skills and attributes needed to play a productive role towards improving life and protecting the environment with due regard given to ethical values. The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones (Excerpts from Belgrade Charter: The Landscape of EE, 2021).

The subsequent Intergovernmental Conference on Environmental Education held in Tbilisi in 1977 produced what we now know as The Tbilisi Declaration and it remains for many as the definitive statement on what EE is and ought to be. Since their publication in 1978, these goals have provided the foundation for most EE practices, specifically they defined the purpose of EE to:

- (a) foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas;
- (b) provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment.
- (c) create new patterns of behaviour of individuals, groups and society as a whole towards the environment (Tbilisi Declaration (1977), 2021)

THE IMPORTANCE OF ENVIRONMENTAL LITERACY

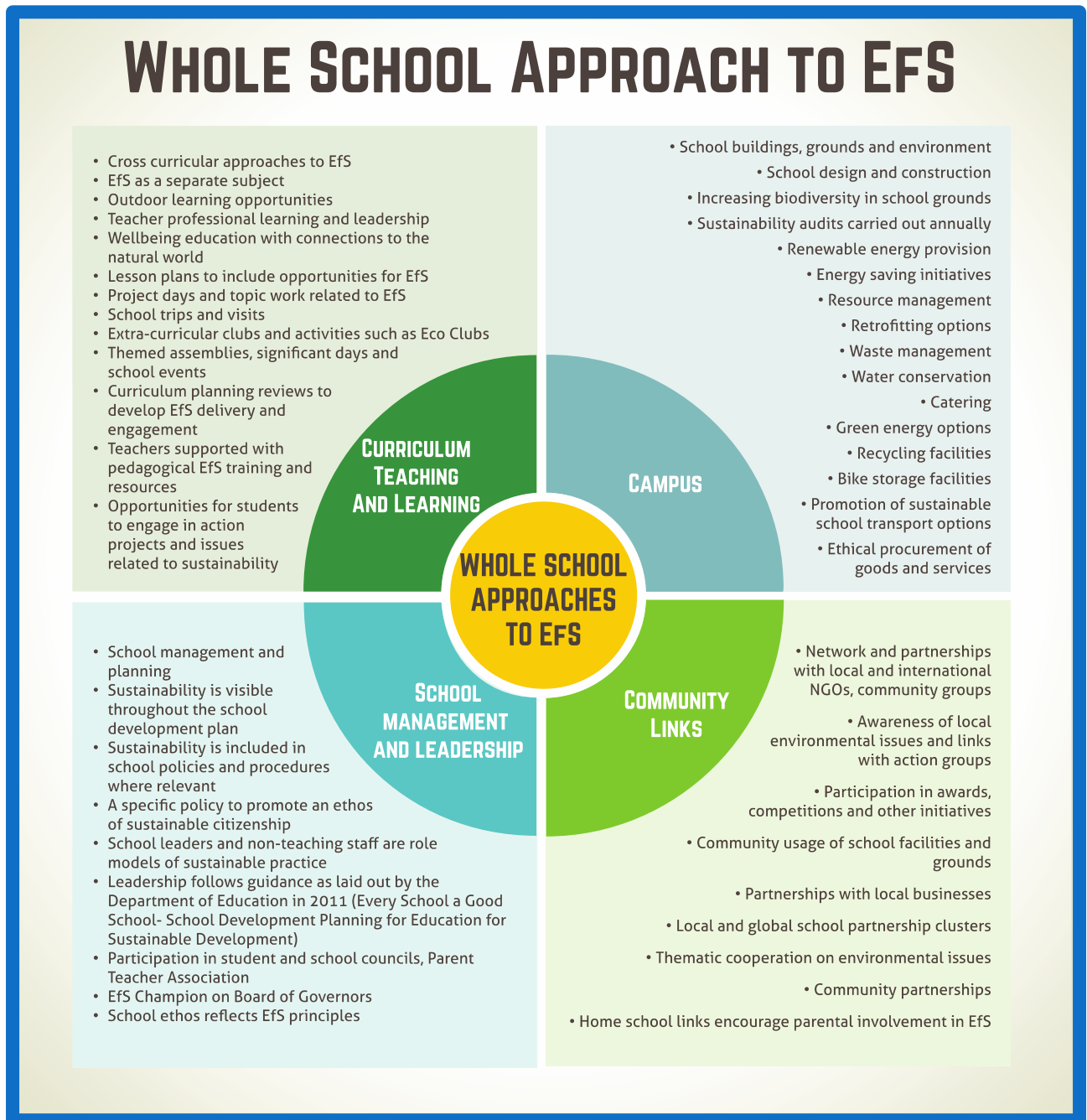
The core purpose of EE is to create environmentally literate citizens and environmental literacy requires knowledge and skills that both build upon and go beyond just environmental sciences. The National Project for Excellence in EE has identified four key elements required to ensure environmental literacy, they are:

1. Environmental literacy depends on a willingness and ability to ask questions about the surrounding world, speculate and hypothesize, seek and evaluate information, and develop answers to questions
2. Environmental literacy is contingent upon understanding environmental processes and systems, including human systems.
3. The environmentally literate citizen is able to identify, investigate, and formulate potential solutions to environmental issues.
4. Students are motivated and understand that what they do as individuals and in groups makes a difference in their world (National Association for Environmental Education, 2015, 6).

Naturally, EE begins close to home in local environments, it should encourage learners to understand and forge connections with their own local area, neighbourhoods and communities. It is through these lived connections that children and young people can gain first-hand knowledge and skills to help them make sound environmentally mindful choices and decisions. It is clear that EE must be based on an education that draws knowledge from the sciences, social sciences and humanities.

With regard to a holistic approach to EE in schools, in order to fully support environmental literacy educational institutions should focus on four key areas:

- Curriculum Teaching and Learning
- School Management and Leadership
- The Campus
- Community Links



WHAT IS SUSTAINABLE DEVELOPMENT ABOUT?

In this section we will try to explain the meaning of Sustainable Development and explore some of its key features.

Globalisation has had a clear impact on sustainability for the planet, it manifests itself in a myriad of ways and has an impact on society, economies and ecologies. The complex interconnection and interplay between these three areas is now commonly recognised by both scientists and policy makers.

As their historical timeline will demonstrate, environmental stewardship is inextricably part of all areas of life on the planet, the intricacies of these relationships demonstrate exactly why equipping our children and young people with critical thinking skills is crucial when discussing any form of environmental, citizenship and Sustainable Development education.

THE HISTORY OF THE CONCEPT OF SUSTAINABLE DEVELOPMENT

CLUB OF ROME

In 1972, the Club of Rome published a report called "The Limits to Growth". The main conclusions of this report were that if economic development as we knew it continued, society would run out of non-renewable resources before the year 2072. It highlighted that the most probable outcome would be "a rather sudden and uncontrollable decline in both population and industrial capacity" (Carter and Simmons, 2010, 83). It also argued that piecemeal approaches to solving individual problems would not be successful.

BRUNDTLAND REPORT

In 1987, the World Commission on Environment and Development (WCED) submitted the report "Our Common Future" to the United Nations General Assembly, it is commonly known as the Brundtland report. The aim of the report was to find practical ways of addressing the environmental and developmental problems facing the world. The WCED's main aims were:

- To re-examine the critical environmental and developmental issues and to formulate realistic proposals for dealing with them.
- To propose new forms of international co-operation on these issues that will influence policies and events in the direction of necessary changes.
- To raise the levels of understanding and commitment to action of individuals, voluntary organizations, businesses, institutes and governments.

In this report the concept of "sustainable development" was defined as:

"development that meets the needs of the present without compromising the ability of future generations to meet their own needs"

This definition sets out the two fundamental principles of intragenerational and intergenerational equity. It also contains the two key principles – needs and limits. The report went on to expand the concept of sustainable development as something that "requires meeting the basic needs of all and extending opportunity to satisfy their aspirations for a better life." (WCED, 1987, 44).

The report stresses that these goals can only be achieved if consumption patterns in the richer countries are readjusted. At the same time, the report rejected the anti-growth arguments of the 1970s and in some ways called for eco-friendly growth in developing countries to help alleviate poverty and provide for basic needs. It highlighted the need for this eco-friendly growth to be “less-material and energy intensive and more equitable in its impact” (WCED, 1987, 52).

A central distinguishing feature of sustainable development as a policy paradigm is that it shifts the terms of debate from traditional environmentalism, with its primary focus on environmental protection, to the notion of sustainability, which requires a much more complex process of trading off social, economic and environmental priorities.

In spite of the complexities of the term “sustainable development”, in common language, sustainable development is very often considered a synonym for environmental protection.

UN CONFERENCE ON ENVIRONMENT AND DEVELOPMENT, RIO DE JANEIRO, 1992

This conference accepted the terminology in The Brundtland Report and the event was an important milestone for the now commonly used term “sustainable development”. It was attended by representatives from both the northern and southern hemispheres, all concerned about negative environmental impacts increasingly recognized as threats to our planet’s ecosystems. Discussions eventually lead to the agreement that sustainable development should be seen as an area for further research and action and, importantly, that the concept should become a policy influence for national governments (Carter and Simmons, 2010, 98).

This conference led to many globally recognized declarations, including the Rio Declaration on Environment and Development, the Kyoto Protocol to the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, the Agenda 21 Action Programme and the Paris Agreement. The Paris Agreement, the most recent legally binding global climate change agreement, was adopted at the Paris Climate Conference (COP 21) in December 2015 and was signed by 196 state parties.

MILLENNIUM DEVELOPMENT GOALS (MDGS)

In September 2000 world leaders came together at the UN in New York to adopt the UN Millennium Declaration. The Declaration asked nations to commit to global partnership with the aim of reducing extreme poverty with a deadline set for 2015. It identified 8 goals in total:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/Aids, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

17 GLOBAL GOALS FOR SUSTAINABLE DEVELOPMENT (SDGS)

Following the closing deadline for the MDGs, in September 2015 countries gathered at the UN to adopt 17 goals for Sustainable Development. The 17 goals were:

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals

We need to let go of half-hearted attempts and instead act in proportion to the magnitude of the change needed.

The Future We Choose, Surviving the Climate Crisis

SEVEN COMPLEX LESSONS IN EDUCATION FOR THE FUTURE

Influential in the development of the Recommendations for EfS in formal education are the concepts outlined by Edgar Morin in the UNESCO publication, *“Seven Complex Lessons in Education for the Future”* which promotes *Earth Citizenship*. (UNESCO Publishing, 2021)

He puts forward that education needs to focus more on understanding complexity, empathy and self/mutual understanding through transdisciplinary perspectives so that we can meet the future more sustainably. Central to this strategy is the consideration of what education for a sustainable future must offer to our children and young people and how our existing practice must be reconsidered and reframed to ensure that we collectively move our societies to more environmentally considered lifestyles.

If you're teaching today what you were teaching five years ago, either the field is dead or you are. *Noam Chomsky*

Putting it simply, Morin states:

“When we look to the future we confront many uncertainties about the world our children, grandchildren and great grandchildren, will live in. But we can be certain of at least one thing: if we want this earth to provide for the needs of its inhabitants, human society must undergo a transformation. The world of tomorrow must be fundamentally different from the world we know...We must strive to build a “sustainable future”....Education, in the broadest sense of the term, plays a predominant role in this development aimed at fundamental changes in our ways of living and behaving. Education is the “force for the future” because it is one of the most powerful instruments of change.” (UNESCO Publishing, 2021, p. 3)

Specifically, he focuses on 7 skills areas in which education must focus attention, they are

1. **Detecting error and illusion:** Critical literacy skills
2. **Pertinence in knowledge:** Grasping general problems in which we only know partial solutions
3. **Teaching the human condition:** Understanding cultures and diversity; individual and collectives
4. **Earth Identity:** Recognizing that all things on the planet are interconnected
5. **Confronting uncertainties:** Offering young people the skills needed to be comfortable in uncertainty and unpredictability
6. **Understanding each other:** Identifying the obstacles we have understanding others and human complexities that can both assist and block development of empathy for others
7. **Ethics for the human genre:** Teaching about democracy and citizenship skills.

These 7 skills should be embedded in any EfS curriculum development and youth engagement in line with the recommendations in this strategy document.



In summary, a “re-orienting” of education’s approach to teaching is required in formal education settings in that it must incorporate more process driven, participative and empowering engagements. As Agenda 21 highlighted, raising public awareness of sustainable issues must include a focus on education through a re-orienting education towards sustainable development – one that seeks to “achieve environmental and ethical awareness, values, skills and behaviour consistent with sustainable development and for effective public participation in decision making.” And, in order to achieve this goal, “To be effective, environment and development education should deal with the dynamics of both the physical/biological and socio-economic environment and human (which may include spiritual) development, should be integrated in all disciplines, and should employ formal and non-formal methods and effective means of communication. ” (AGENDA 21: United Nations Conference on Environment & Development, 1992, p. 319)

EDUCATION FOR SUSTAINABILITY (EFS)

Education for Sustainability (Efs) is the term that we believe encompasses the spirit and the intentions of Environmental Education and Education for Sustainable Development. The three elements of the approach are outlined below:



Efs in formal education should be characterised by the following key frames (Huckle and Sterling, 1996):

Efs should be **Contextual**: It must be engaged in addressing the environment and climate challenges; and, it should be applied and grounded in the local economic, social, ecological and community contexts which can then be translated to apply to regional, national and global contexts.

Efs should be **Innovative and Constructive**: Offering insights and ways forward that put forward environmentally sustainable futures

Efs should be **Focused and Inclusive**: A grounded and inclusive approach that include social development, human ecology and biodiversity

Efs should be **Holistic and Human in Scale**: Recognizing that all educational dimensions – curriculum, pedagogy, structures, organisation and ethos are mutually affecting. It needs to also be learner-centred (development of the whole person) and socially oriented.

Efs should be **Integrative**: Through an emphasis on interdisciplinary and transdisciplinary enquiry, reflecting that no subject, topic or issue exists in isolation.

Efs should be **Process Oriented and Empowering**: Revisioning and revaluing education and learning as intrinsic to life it must be an engaging process (rather than passive) with an emphasis on learning

rather than teaching. Action research, critical reflection, experiential learning cycles and democratic practice for change must be emphasised in EfS engagement.

Efs should be **Ideologically Aware and Socially Critical**: Ideological awareness can better enable individuals to challenge their prevailing worldviews to decide if reframing the way environmental and sustainable issues are presented or viewed is appropriate. Using social criticism to examine issues in contemporary society can assist with ideological awareness and enlighten views on injustice and power relations, both relevant to climate and environmental topics.

EfS involves.....	EfS is not....
✓ being honest about tipping points - allowing space to express frustration but then empowering with active hope	X all despair along with doom and gloom
✓ all ages	X too difficult or depressing for young people to understand
✓ the whole school community and is 'lived' through daily practice	X limited to certain subjects such as World Around Us, Geography and Science
✓ exploring the interconnection between all life on earth	X just about nature
✓ social justice locally and globally	X just about local environmental issues
✓ living a more sustainable lifestyle and being mindful of your surroundings	X simply about climate change
✓ making good sustainable choices and decisions	X making quick fix solutions without thinking of long-term or wider reaching impacts
✓ thinking about the future we want	X just about the future we want to avoid
✓ action orientated	X telling people what to do and think

EFS TEACHER COMPETENCIES

In order to educate our children and young people in EfS across the curriculum, Teacher Professional Learning opportunities must engage with EfS concepts and skills. In order to do this, we must adjust existing practices and curricula to include the philosophic and analytical frameworks inherent to EfS which includes education and enquiries into social, economic and environmental factors and how they are interconnected.

Agenda 21 recommended that countries should support universities and other tertiary education to create and build on existing networks with relevant environmentally concerned NGOs to increase teachers' environmental and developmental understanding. It suggests as well that countries, assisted by NGOs and other sectors should create or build on established national or regional centres of excellence in interdisciplinary research and education in environmental and developmental sciences; these centres could be universities or amalgamations of environmental networks which promote cooperative environmental research, information sharing and dissemination. It went further to advise that educational authorities, in partnership with NGOs, should promote all kinds of adult education programmes for continuing education in environment and development, basing their activities specifically around primary and post-primary level education and addressing local environmental challenges (AGENDA 21: United Nations Conference on Environment & Development, 1992 p. 320-26)

Four core competency areas have been identified for educators with regard for ESD and these can be similarly applied to EfS requirements. The four core areas of competence suggested for educators are: **knowledge** ("learning to know"), **acting** ("learning to do"), **cooperation** (learning to live together), and **being** ("learning to be"). (Burgener and Barth, 2002)

Another influential aspect, taken from the research of the Environment and School Initiative, is the key role of the teacher as not only an instructor but as an individual in a dynamic relationship with students, colleagues and wider society. (ENSI.org, 2021)

While globally, there is clearly more awareness of the environment and the need to live more sustainably, in order to build on this awareness through the development of the four core areas of competence, **our educators and educational institutions must become change agents** to build on this growing political and societal interest and momentum. We must develop competent and committed multipliers in our education system who can act as change agents and not only be supporters of EfS but also have the skills needed to develop young people into environmentally aware citizens. (Holm et al., 2016)

To do this, these multipliers need the chance to develop the necessary competencies along their own educational pathways. These specific skills can be best achieved in an "open learning environment".

An open learning environment seeks to create situated learning, particularly facilitating the development of content knowledge as well as pedagogical approaches where learning activities are embedded in specific contexts that encourage critical thinking and emphasize the importance of multiple perspectives. They feature experience-based problem-solving activities and thus improve the personal motivation of learners.

Teacher training and Teacher Professional Learning open learning environments should offer the following (Hannafin, Hill, Land and Lee, 2014):

Enabling Contexts

Enabling contexts orient the individual to a need or problem as the starting point of a learning process. They help address problems and frame the learning needs and can be externally-imposed, externally-induced or individually-generated.

Resources

Resources encompass all source material with potential to support learning. This includes individuals such as experts or peers as well as all material that provides information.

Tools

Tools are the means through which individuals interact with resources and act. Their functions may vary according to the enabling contexts as well as the intents of their users. They can be further distinguished as processing tools, manipulation tools and communication tools.

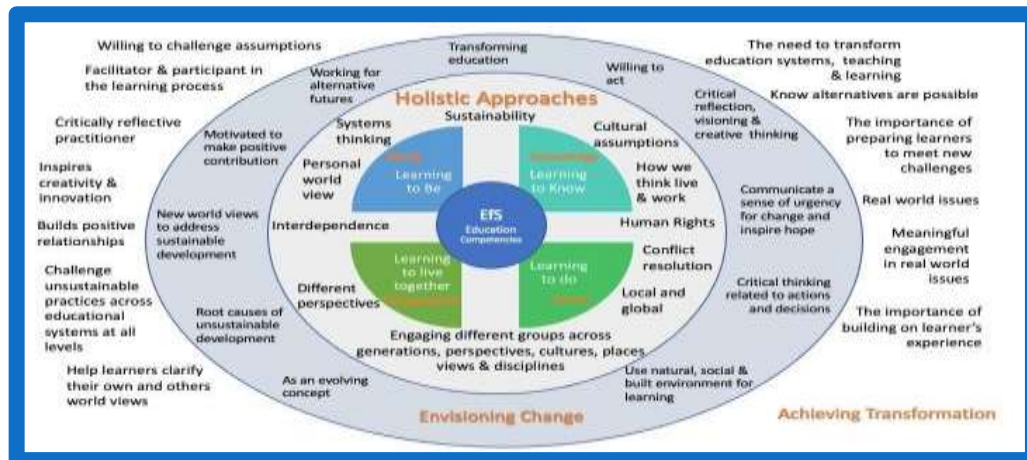
Scaffolds

Scaffolding supports learning efforts within an open learning environment. It can be conceptual, metacognitive, procedural or strategic and typically is faded throughout the learning process.

It is clear that this engagement would lead to teacher's competency in EfS frames and the four competencies which in turn will lead to open learning's replication in the classroom which will ultimately lead to a societal transformation where our children and young people become active citizens contributing to sustainable development and environmental protection.

Teacher competency in EfS is an essential component, this requires efforts focused on the integration of EfS aptitudes; strong understanding and curricula support of EfS on the part of our teachers is the only sustainable path to successful integration in school practice. This will require political will and action on the part of our tertiary institutions and in our continued professional development (TPL) for educators.

Using an opening learning approach to teacher skills development which integrates the development of the four key competencies (knowledge, action, cooperation and being) will result in teachers developing broad understandings and skills as teachers as demonstrated below:



It is important to note again, that in order to support teachers, children and young people to embrace EfS principles it is also key that EfS is embraced by whole schools and institutions as well as the wider community through school or institutional outreach. EfS principles should be reinforced formally and informally, promoted by and through school's values and actions, where the ***whole school community lives what they learn and learn what they live.***

STRATEGY AND ACTION PLANS GLOBAL BEST PRACTICE EXAMPLES

Three global best practice exemplars have been chosen for brief review; they are:

- Canada (focus will be on Ontario specifically)
- New Zealand
- Italy

A brief summary of the strategies and action plans for each national strategy best practice example is provided below.

Education in Canada is a provincial responsibility and due to provincial differences, the range of EE embedded in curriculums also varies to some degree. For this reason, we will focus on Ontario as a best practice model for EE strategy and action. Ontario's Ministry of Education policy framework for environmental education (2007) recognizes the importance of local, place based learning as well as the complexity and multidimensional nature of EE, stating that "environmental education [in Ontario schools] will draw on effective learning strategies – including inquiry, problem solving, critical thinking, and assessing alternatives – that engage students personally in their own learning, connect them to the world they live in, and give them the systems thinking and futures thinking they will need to become discerning, active citizens." (Acting Today, Shaping Tomorrow, 2007, p.7).

In 1973, the Ontario Ministry of Education (OME) embedded environmental science courses into the province's elementary and secondary schools. Over the following two decades, EE increased in the Ontario curriculum. In 2007 the OME formed a Working Group on Environmental Education and it was tasked to "analyse needs and research successful approaches to teaching and learning about the environment in secondary schools" (Ministry of Education, 2017, p. 3). The working group's report, *"Shaping Our Schools, Shaping Our Future"*, recommended that there was a need to "increase the cross-curricular focus of environmental education by embedding environmental expectations and topics across all subjects, disciplines, and grades (Shaping our Schools Shaping Our Future: Environmental Education in Ontario, 2021, p. 3). The report also provided an operational definition of EE which has since guided EE in the curriculum, specifically it stated that it should be "education about the environment, for the environment and in the environment that promotes an understanding of rich and active experience in, and an appreciation for the dynamic interactions of:

- The Earth's physical and biological systems
- The dependency of our social and economic systems on these natural systems
- The scientific and human dimensions of environmental issues
- The positive and negative consequences, both intended and unintended, of the interactions between human-created and natural systems." (Ministry of Education, 2017, p. 6)

The OME response to the document was to release an EE standards statement and policy framework entitled "Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools" this document provided strategies, actions and goals for the required EE implementation in Ontario schools. The document:

- addressed changes in teacher training, methods of student engagement and community connections and environmental leadership;
- called for the adaptation of an integrated approach to EE; calling for EE to be embedded throughout the curriculum (Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools, 2008)

While there remain challenges to embedding EE across the Ontario curriculum, the province does have direction, political attention and gives substance to the advancement of EE in schools. The implementation of the EE policy from 2007 has not been without its challenges, like many countries post the 2007 global financial crisis, reduced funding and resources in education, was one of the biggest challenges to implementation of EE as outlined by the OME standards and policy framework - and for many years there remained a need for developing educators' capacities for EE and curricular resources.

To answer this need, in 2017, the OME produced two resource guides (grades 1-8 and grades 9-12) on “*Environmental Education: Scope and Sequence of Expectations*” for the Ontario Curriculum Grades 1-8 and 9-12. The documents provide scopes and sequences in the learning expectations in the curriculum that relate to, or provide opportunities for, environmental education”, it goes on to say that “educators in every discipline can use [the document] to inform program planning, in order to take advantage of opportunities to support students’ development of related skills and knowledge.” (Ministry of Education, 2017, p. 3).

With regard to Grades 9-12, the following curriculum areas were covered with regard to embedding EE across the curriculum:

The Arts

Business Studies

Canadian and World Studies

Classical Studies and International Languages

Computer Studies

English/English as a Second Language and Literacy

French as a Second - Core, Extended, Immersion

Guidance and Career Education

Health and Physical Education

Interdisciplinary Studies

Mathematics

Native Languages & Studies

Science

Social Sciences and Humanities

Technological Education

The elementary³ curriculum scope and sequence is broken down by grade requirements.

It is clear that EE has been a focus for educators in the province of Ontario, it has not been without criticism concerning the need for more capacity and appropriate resources, but these are common concerns and perhaps reflect economic factors rather than ideological barriers. The recent OME documents offering scope and sequence are certainly strong steps in the right direction and demonstrate provincial commitment to ensure that EE is one of the pillars of a student’s life.

“Ontario’s education system will prepare students with the knowledge, skills, perspectives, and practices they need to be environmentally responsible citizens. Students will understand our fundamental connections to each other and to the world around us through our relationship to food, water, energy, air, land, and our interaction with all living things. The education system will provide opportunities within the classroom and the community for students to engage in actions that deepen this understanding.” *Shaping our Schools Shaping Our Future (2007)*

³ Equivalent to primary level in the UK

The New Zealand education system is similar to the UK system, made up of three-tiered stages – early childhood, primary and post-primary education. There are eight major learning areas, which are: English, Health and PE, the Arts, Languages, Maths, Science, Social Sciences and Technology; Māori schools have a ninth subject, the Māori language. In 1993 the *New Zealand Curriculum Framework* was published, like the current curriculum in Northern Ireland, at the time there was no statutory requirement to include environmental education or sustainability, however there was acknowledgement that schools could adapt the curriculum to take account of local needs, including environmental ones. In 1998, the government agencies set priorities for environmental education. In 1999, the government released *Guidelines for environmental education in New Zealand Schools* which offered guidelines for schools interested in integrating environmental education in their teaching. (Ministry of Education, 2004) The guidelines sought to compliment the New Zealand Curriculum Framework and was focused on linking EE with mandated learning in the curriculum. In addition to the guideline's publication, the Ministry of Education funded professional development programmes for teachers based on the guidelines, these ran between 1999-2002. The latest National Curriculum was fully adopted in 2010, updated in 2015 and in February 2021, the Ministry of Education announced that "[t]he national curriculum will be refreshed over the next five years..." (Tinetti and Davis, 2021, online). The review is focused on embedding New Zealand's histories and is relevant to environmental elements in the curriculum as it will include *Tūrangawaewae me te kaitiakitanga* (relationships of individuals and groups with the land, sea and resources).

With regard to environmental principles the New Zealand curriculum stands out as an excellent model of embedding sustainable development concepts throughout the national curriculum requirements. The stated overarching intention is to develop children and young people into individuals with "attitudes and values that lead to create a nation of innovative and motivated people who think and act sustainably" (Education for sustainability / Curriculum resources / Kia ora - NZ Curriculum Online, 2020). In 2017 the government published *Mātauranga Whakauka Taiao – He Mahere Rautaki, Environmental Education for Sustainability Strategy* which compliments and builds on the curricular requirements for EEfS. The priority areas identified for the strategy are to:

- Enable coordination of EEfS
- Grow capability and capacity in EEfS delivery
- Strengthen pathways in sustainable practice

All New Zealanders value a connection to our environment by actively working together for a sustainable future.

Vision Statement, Mātauranga Whakauka Taiao, Environmental Education for Sustainability

The national curriculum refers to their education for sustainability as Environmental Education for Sustainability (EEfS). The national curriculum strategy focuses identified key environmental issues: challenges of climate change, water quality, biodiversity protection and waste and it seeks to recognise and grow the Māori perspectives in their environmental protection. It also views EEfS as a key initiative to assisting the government to achieve its environmental goals. (Department of Conservation, Ministry for the Environment, Ministry of Education, 2017, p. 23). The EEfS seeks to go beyond the development of practical skills and understanding, it pointedly seeks to also develop "strong human elements" with targeted intentions towards developing children and young people in the following four ways: *Te Taha Wairua* (the spiritual dimension); *Te Taha Tinana* (the physical dimension); *Te Haha Hinengaro* (the dimension of thought); and, *Te Taha Whānau* (the family dimension). This recognition of the need for

individual development, rather than simply a hard skill, is a central and crucial theme for successful EE, ESD and EfS.

Of particular note are the values within curricular requirements for EEfS, listing the following “to be encouraged, modelled and explored” (Ministry of Education, 2015, p. 10):

Students will be encouraged to value:

- “ecological sustainability including care for the environment”

In exploring environmental issues, people’s interests in the environment, and actions for a sustainable future, students will have many opportunities to:

- learn about their own values and those of others
- develop their ability to express their own values
- explore with empathy the values of others
- critically analyse values and the actions based on them
- discuss disagreements that arise from difference in values and negotiate solutions
- make ethical decisions and act on them

With regard to key competencies required for living and life-long learning the Ministry of Education requires (Ministry of Education, 2015, p. 12):

Capabilities for living and lifelong learning: *Education for sustainability seeks to empower students of all ages to take action on issues of concern and of interest to them. It describes this process as action competence, and uses all the key competencies, combined with experiences from the learning areas, to make this goal possible. The development of action competence and the key competencies is seen as part of the process of taking action. (NZC, p.12)*

Finally, a report published by the *Teaching and Learning Research Initiative* recognised that a whole-school approach is needed to fully deliver EEfS to children and young people. The report highlighted that action-competence was the most effective and promising methodology as it offers experiences in “the ability to act with regard to the environment” (Eames, Barker, Wilson-Hill and Law, n.d.). The argument being that **action-competence goes well beyond pro-environmental activity or behavioural modification, rather that it incorporates intentional, participatory and authentic action that requires knowledge about underlying causes of unsustainable practices and is guided by students’ experiences, attitudes, values and local contexts.** Action-competencies can be best developed through whole-school, commitment to action to support EEfS as it offers an academic environment that is living EEfS principles and offering these real-life experiences to students intentionally.

The New Zealand National Curriculum and EEfS Strategy also recognises that in order for EEfS to be successful there must be a whole school approach to sustainability and based on the Teaching and Learning Research Initiative’s work, they have identified four areas of school life needed to create a sustainable school:

- **People** work collaboratively, are reflective of our bicultural heritage and the diversity of their community. They ensure that students are all involved in sharing decisions in order to become confident, connected, actively involved, lifelong learners.

- **Programmes** focus on learning about the interaction between people and the environment and developing attitudes and behaviours for a more sustainable future. Through taking action students discover why sustainability matters and how to make sustainability a reality in their school and wider community.
- **Sustainable Practices** are a part of school culture instigated by students and staff to make a more resilient community for the future.
- A **Place** is created where students and their community work together willingly to reduce their impact on the planet for future generations to enjoy the diverse and beautiful world we live in.

New Zealand's continued commitment to EEfS throughout its curriculum topics is one in which Northern Ireland could learn from in the development of EfS across the new curriculum scheduled for 2022.

"Mō tatou te taiao ko te tawhai, mō tatou te taiao ko te ora"

It is for us to care for and look after the environment to ensure its well-being, in doing so we ensure our own well-being and that of our future generations"

Education in Italy is compulsory from the ages of 6 to 16. In 2019 Italy announced that it would include sustainability and the climate crisis as compulsory subjects in their curriculum. This inclusion contributes to the country's attempts to meet the UN's 2030 Agenda for Sustainable Development. (Ray, 2021). Education policy making is shared between the national government which has responsibility for funding, school curricula, and quality control and the Regions responsible for education delivery, in particular for vocational education and training (NCEE National Center On Education And The Economy, 2006)

In 2015 Italy's parliament approved Law 107/2015, called *The Good School Reform (La Buona Scuola)*, which called for a broad-ranging school reform which aims to improve educational outcomes of their children and young people. This parliamentary law calls for improvements in the curriculum emphasising the introduction and enhancement of the teaching of certain subjects, including sustainable development (Buona Scuola | Cos'è e cosa prevede la normativa, 2021). Measures included in the document address increasing individual school autonomy, hiring new teachers to meet shortages, and enhancing digital innovation and skills in schools.

Italy has also engaged with the EU-funded *National Operational Programme 2013-20 (Per la Scuola: competenze e ambienti per l'apprendimento)* and as a result have implemented measures to improve educational equity, quality, lifelong learning, links between school and work, and administrative and institutional capacity among other targets. (OECD and European Commission, 2017)

In 2019 Italy's Education Minister announced that Italian students will have one hour a week dedicated to themes including global heating and humans' influence on the planet with themes included in geography, civics, mathematics and physics. (Who will win the race to offer compulsory climate change education? 2019)

The entire ministry is being changed to make sustainability and climate the centre of the education model...I want to make the Italian education system the first education system that puts the environment and society at the core of everything we learn in school.

Lorenzo Fioramati, Italian Education Minister

The decision announced by Lorenzo Fioramati, Italian Education Minister, makes Italy the first country in the world to make these specific subjects compulsory. In order to meet the goal, the Italian government has engaged Environmental experts from Columbia and Oxford Universities to assist in the development of best practice and preparation of the new curriculum targets for each grade. Teacher training began in January 2020 and the full programme commenced in September 2020.

The new curriculum is delivered at all grade levels and is mandated to occur for a minimum of 33 hours of education about climate change and other relevant topics. The proposal is that 6-19-year-olds will spend a minimum of one hour a week on topics such as ocean pollution, sustainable living and renewable resources.

The Ministry for Education has also supported the Senato & Ambiente (Senate & Environment) competition which recognises schools who have “aimed at making young people grasp the importance of the values of environmental sustainability. The award aims to promote the values of environmental protection and sustainability, to encourage young people to identify environmental challenges in their local context and to develop ways to meet these local challenges.

Schools entering the competition must:

- Identify a local environmental issue
- Conduct research
- Study an analysis people’s attitudes to the issue (conduct a survey in the area and school)
- Provide a report that demonstrates possible solutions to meet the issue.

The 2020/1 school year competition saw 12 schools win (by region) with just over 130 school entries. (Senato Ragazzi - Senato Ambiente, 2021)

It is clear that the Italian government is committed to reaching the goals of the Paris agreement to meet the Climate-neutral goals in line with the Paris Agreement and the European Green Deal.

Climate change should be included in all school curricula and should play a central role in updated Nationally Determined Contributions”

Patricia Espinosa, Executive Secretary of UN Climate Change

POLICY AND STRATEGY REVIEW ENGLAND, SCOTLAND, WALES AND THE REPUBLIC OF IRELAND

Like Northern Ireland and the others mentioned in this section, it is worth noting that as is the case with Northern Ireland, there are a large number of local and national NGOs and non-formal curricular offerings both outside and inside school settings, these include: Sustainability and Environmental Education (SEEd); The Ellen MacArthur Foundation; Eco-Schools; and Forest Schools. Those listed are a small few of what is available, they have been mentioned as they offer best practice examples of non-formal ESD and EE engagement.

ENGLAND

The Education Act (2002) outlines the national curriculum requirements for England, it lists the requirement of maintained schools and nursery schools to offer a balanced and broadly based curriculum which:

- a) Promotes the spiritual, moral, cultural, mental and physical development of pupils at the school and of society, and
- b) Prepares pupils at the school for the opportunities, responsibilities and experiences of later life.

Similar to the Northern Ireland Curriculum requirements there are many opportunities within the curriculum to engage young people in the local environment; and similar to Northern Ireland, post-primary opportunities are markedly fewer relegated essentially to STEM subjects.

The report "Understanding Environmental Education in secondary schools in England" (Glackin and King, 2018) found that provision of environmental education in England is "complex, contested and circular." The report, published by the King's College London Environmental Education Research Group, was a response to the removal of environmental education as one of four core pillars underpinning the national curriculum (Martin et al., 2014) and in broad terms it found that without accountability measures in the curriculum, environmental education was "falling through the gaps" and the frequency and quality of environmental education teaching was largely dependent on an individual teacher's interest and also influenced by whether a student studied geography at KS4 (14-16 years). One of the key recommendations of the study was the suggestion that attention needs to be given to supporting teachers and schools to develop citizens who have the skills, knowledge and conviction to positively respond to future global and local environmental issues impacting ecosystems and communities. It went further to recommend that examination boards must be tasked with ensuring students are fully educated in environmental issues impacting communities and ecosystems. (Martin et al., 2014)

Specific to ESD in schools in England, the majority of climate, sustainable development and environmental awareness activities and information are found in the "Notes and Guidance" section within the national curriculum (Key stage 1-4). "Notes and Guidance" are non-statutory requirements and schools are not required by law to teach the content indicated. Within the curriculum, climate change is taught as part of the science programmes of study.

"The National Framework for Sustainable Schools" was launched in 2006 and it offers non-statutory guidance to schools regarding sustainability. This framework strategy put forward eight doorways for sustainable schools: food and drink; energy and water; travel and traffic; purchasing and waste; buildings and grounds; inclusion and participation; local well-being and global dimensions. Setting aside the

framework's glaring omission of biodiversity; it still can be viewed as past positive step towards sustainable practice and education. One of the results of the UK Coalition Governments election in 2010 was the tide change away from ESD in the curriculum; practically demonstrated in the removal of much of the developed support materials from the Department for Education's website. (Martin et al., 2013)

SCOTLAND

In 2009 the Scottish government launched the "Curriculum for Excellence" (CfE) which included a focus on sustainability and competencies of learners and was designed to prepare children and young people for learning, life and work in the 21st century. (2019 Climate Change in Scottish Education Briefing, 2019)

The CfE has impacted a number of Scottish National Curriculum areas in the following areas:

- Ages 3-15:
 - Sciences:
 - Planet Earth
 - Technologies
 - Social Studies
 - Health and wellbeing
 - Religious and moral education

As a result of the above embedding, climate change and renewable energy are present within a broad range of learning experiences and it includes resilience; managing risk; and reflection on the links between beliefs and actions. The CfE can also be used in other non-curricular requirement areas (outside of the above listed) through interdisciplinary learning opportunities, for example in English literature, citizenship or language education.

Building on the CfE of 2019, Scottish Ministers engaged the One Planet Schools Working group to produce the "Learning for Sustainability Report (2012)" (LfS) to examine the opportunities that outdoor learning can offer. It stated that all learners should have an entitlement to learning for sustainability and the high-level recommendations of the report were as follows:

1. All learners should have an entitlement to learning for sustainability
2. Every practitioner, school and education leader should demonstrate learning for sustainability in their practice
3. Every school should have a whole school approach to learning for sustainability that is robust, demonstrable, evaluated and supported by leadership at all levels
4. School buildings, grounds and policies should support learning for sustainability
5. A strategic national approach to supporting sustainability should be established. (The University of Edinburgh, 2012)

In March 2013 Scottish Ministers accepted all thirty-one recommendations in the report. In February 2014 the LfS National Implementation Group was established tasked with delivery on the

recommendations. This group subsequently published the Vision 2030+ report in March 2016 to update ministers on the progress of LfS implementation.

Among others, one of the many successes is that sustainable development education and global citizenship are now nested firmly within the General Teaching Council of Scotland's Professional Standards, which states that "Learning for Sustainability is integral to the GTCS Professional Standards Framework. For each aspect of the Standards, teachers should explore their own assumptions in light of their experiences...". (Learning for Sustainability | General Teaching Council for Scotland, 2021)

In June 2019, ministers commissioned the development of a Learning for Sustainability Action Plan which, using the cross-curricular approach recommended by LfS, weaves together global citizenship, sustainability and outdoor learning. The Action Plan addresses action and accountabilities which aim to enable learners, educators, schools and wider communities to build a socially-just, sustainable and equitable society that promotes whole-school and community approaches to support young people. It highlights the need for teaching professional standards and student learners to develop the capacities needed to reach the UN's Sustainable Development Goals. (Learning for Sustainability | General Teaching Council for Scotland, 2021)

WALES

As early as 2004, Wales had both an Education for Sustainable Development panel (with a focus on EE) and a Global Citizenship panel. Aware that there were many overlaps in the panels, they amalgamated to form the ESDGC which comprised of Welsh Assembly government, formal education and NGO sectors. The ESDGC published "Education for Sustainable Development and Global Citizenship: A Strategy for Action" in 2006 (updated in 2008) which covered 5 areas: schools, youth, further education and work-based learning, higher education, and adult and community education. (Welsh Assembly Government, 2008)

The document was built on the Welsh Assembly's "Making the Most of Learning" (2018) to deliver education that "prepares students for "their lives in the 21st century and their role as global citizens". (ESDG: A Common Understanding for Schools, July 2008) and it promoted a whole school approach to ESDGC. Following the initial publication of the document, seven themes of were presented in a follow up report entitled "Education for Sustainable Development and Global Citizenship: A Common Understanding for Schools". (Welsh Assembly Government, 2008)

The ESDGC Panel remained an influence in Welsh education and through its guidance and interventions it has ensured that "ESDGC has been genuinely embedded, the enthusiasm for this approach to education by some teachers, headteachers and local authority leaders and its continued inclusion" is evident in school inspections. (Welsh Assembly Government, 2008)

In 2015 the "Well-being of Future Generations (Wales) Act" was adopted, it committed the government "to promote the sustainable development principles....to act as guardian of the ability of future generations to meet their needs" and it committed to "...monitor and assess the extent to which well-being objectives set out by public bodies" are being met. It went on to identify seven well-being goals which are: a prosperous Wales; a resilient Wales; a healthier Wales; a more equal Wales; a Wales of cohesive communities; a Wales of vibrant culture and thriving Welsh language; and a globally responsible Wales. Principles of ESD, EE and GC are evident in the goal implementation outlines. (Welsh Assembly Government, 2015)

Since the "Well-being of Future Generations (Wales) Act, Wales has continued its commitment to ESDCC in education. In a 2015 review of ESD in UK schools the authors noted that "there is pride in Wales with

regard to achievements associated with ESDGC and SD generally” and it went on to note that there has been a “commitment to SD as a central organising principle of the Government in Cardiff”. (Welsh Assembly Government, 2015)

This observation is supported by four foundational purposes for the curriculum for Wales; one of which is that “all our children and young people will be...ethical, informed citizens who...show their commitment to the sustainability of the planet” and are “ethical, informed citizens of Wales and the world” (Four purposes for the curriculum for Wales, Welsh Government, 2015)

In 2020, The Welsh government began a curriculum review which will assess curriculum requirements for learners from 3-16; the results of the new framework will replace current national curriculum and basic curriculum requirements, but it will remain to the four core purposes for the curriculum mentioned above and it will hold schools to account to ensure that the four core purposes remain embedded. Referring to wider requirements, while recognising that the “Well-being of Future Generations (Wales) Act” 2015 does not have specific powers over education, it will hold to account the Acts’ requirement for local and national government to carry out sustainable development and that this means that they must work to improve the economic, social, environment and cultural well-being. This commitment holds to account Welsh Ministers’ objective to support “young people to make the most of their potential” and it is put forward that the new “approach to curriculum reform will contribute to achieving that objective and, through that, [maximize education’s] contribution to the well-being goals” and that it “reflects the sustainable development principle and the ways of working” outlined in the Act of 2015.

Specific guidelines from the passed “Curriculum Assessment (Wales) Bill” will be provided some time in 2021.

THE REPUBLIC OF IRELAND

The Department of Education and Skills published “Education for Sustainability” the National Strategy on Education for Sustainable Development in Ireland 2014-2020 (ESD National Education Strategy) and it was presented as one of the key strategies underpinning the Action Plan for Education 2016-2020. The strategy was chiefly influenced by Our Sustainable Future – A Framework for Sustainable Development in Ireland which was published by the Department of the Environment, Community and Local Government (2012). A few years after the publication of the ESD National Education Strategy, the Republic of Ireland launched The Sustainable Development Goals National Implementation Plan 2018-2030 which outlined a whole government initiative. With relevance to education clear overlaps can be found between the documents with regard to the importance of awareness raising and sustainability in action. For the purpose of this country summary, we will focus on the ESD National Education Strategy.

The ESD National Education Strategy identified the following aims:

- to address environmental issues (climate change; disaster risk reduction; biodiversity; environmental protection; natural resource management; urban decay; water security)
- to address socio-economic issues (economic growth; poverty; food prices; child labour; social exclusion; justice; debt security; human rights; health; gender equity; cultural diversity; production and consumption patterns; corporate responsibility; population growth; migration)
- to address “political issues” (citizenship; peace; ethics; human rights; democracy and governance)

The ESD National Education Strategy also identified eight key priority areas for action and stated that the eight priorities are key leverage points for the advancement of the ESD agenda in Ireland:

1. Leadership and coordination
2. Data collection and baseline measurement
3. Curriculum at pre-school, primary and post primary
4. Professional development
5. Further education and training
6. Higher education and research
7. Promoting participation by young people
8. Sustainability in action

Other key actions in the ESD National Strategy included consistent engagement with all stakeholders to support its implementation: building links with the community; enhancing ESD leadership in schools and in the community; engaging statutory agencies and supporting young people to actively participate as national and global citizens.

In the 2018 review of the “Education for Sustainability” The National Strategy on Education for Sustainable Development in Ireland 2014-2020 there was considerable evidence of progress regarding raising awareness and embedding ESD principles and practices at all levels in their education system. It also highlighted that one of the key learnings from the 2018 review was the importance of **all stakeholders actively and collaboratively contributing** to the actions so that they are practically realized; particularly with regard to the national curriculum.

GLOBAL BEST PRACTICE EXAMPLES

Examples of good practise in EfS around the world were thankfully abundant. The few examples selected here were chosen as they reflect a variety of approaches that could work in the Northern Ireland context.

The examples below include ideas for;

- collaborative working between NGOs, schools, universities, education systems and business.
- inspiring and supporting activism
- supporting education including access to resources, cross curricular learning and instilling an ethos of sustainability
- linking personal wellbeing to planetary wellbeing
- individual and group actions locally and globally
- initiatives to inspire and drive real change such as awards, focussed weeks and action projects

Learning about the climate emergency can be overwhelming if not terrifying. Hearing how others have taken action and made a difference can be inspirational. Sharing stories and ideas can catalyse others to act, providing much needed hope to face our current crisis.

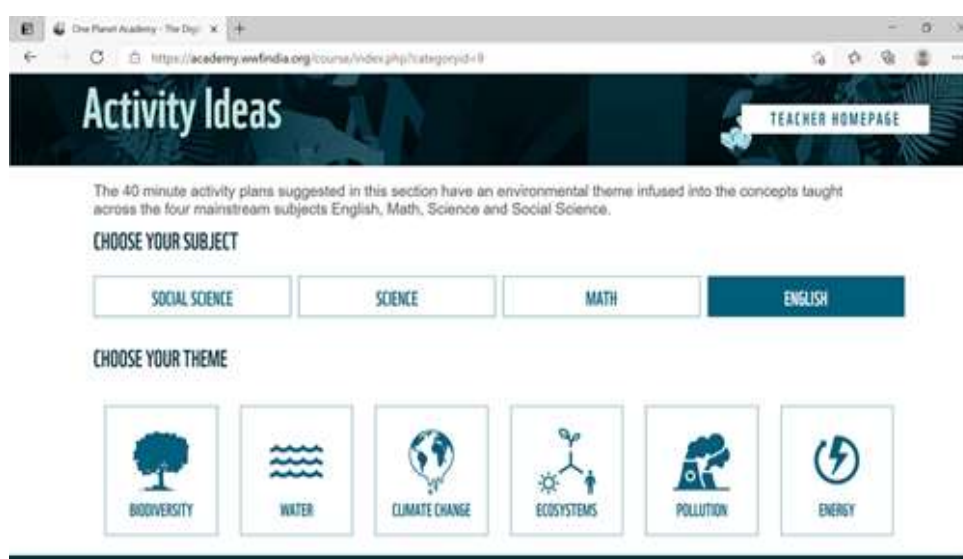
CASE STUDY: INDIA NGO TEAMS WITH BUSINESS TO INCREASE OUTREACH OF ENVIRONMENT EDUCATION THROUGH TECHNOLOGY⁴

One Planet Academy – Digital resource centre for environmental action and awareness

Established by WWF India and Capgemini, One Planet Academy is a resource portal for teachers and students, allowing easy access to interesting and engaging educational material. The teacher section provides ideas for projects and activities along with publications related to educating learners about the environment. This website also provides short-term online training courses for teachers.

For students, the OPA is a fun virtual library, with informative e-books and stories, interactive games, films and competitions, which helps to deepen environmental consciousness. WWF- India conducts workshops including nature trails and lectures and talks on environmental issues. This dynamic web-based platform ensures easy and equal dissemination of resources across the country.

Aligned to the school curriculum the portal is for every student and teacher upon registration. It seeks to engage them in conservation action, making entire schools into environment-friendly units.



⁴ <https://academy.wwfindia.org/opahome/index.php?redirect=o&li=o>

CASE STUDY: BHUTAN - LINKING INDIVIDUAL WELLBEING WITH THE WELLBEING OF NATURE⁵

Fostering Green Minds through Green Schools in Bhutan

Bhutan has been trialling a new approach to education since 2009. The nation-wide program called “Educating for Gross National Happiness” was launched by then Bhutan education minister Thakur S. Powdyel in 2009 to nurture Green Schools as a means of building a Green Bhutan. The concept aims to encourage respect for the earth by conserving natural resources and learning from the earth by bringing nature into the classroom and the classroom into nature. The green school concept in Bhutan, is broader than other green school concepts around the world.

The past couple of years have seen reports by schools of enhanced academic performance, improved student behaviours, reduction in disciplinary issues, and positive changes in the overall aspects of the institutions.

The concept of a green school is not just about the environment but also about instilling a sense of green minds.

“Green is more than a colour; it is a metaphor for everything that supports and sustains life.”

At the forefront of the concept is the conservation of the natural environment. It is a values-based holistic approach beyond academic achievements to expand children's minds. It is a philosophy to foster students holistically and teach children about what it means to be human.

Green schools are seen as a means to return to the heart of teaching and learning, playing a vital role in nurturing the next generation to be well-rounded individuals who are at peace with themselves and the world around them.

“It seeks to harmonise the gift of the head, the heart and the hands, thereby enabling young men and women, children and youth to develop into well-integrated individuals who are at peace with themselves and at peace with the world around them.

“We learn to live together and learn together, respecting our uniqueness and our commonality. We learn to care and to share and to succeed together.

He said these virtues must be developed and shared in schools as they were crucial for the unity and strength of the country and the world.

The first and the foremost objective of this initiative is to regard ‘nature as a teacher’. With respect to this aspect, there are eight components which the schools in Bhutan try to practice on a daily basis:

1. natural greenery (planting trees, shaping gardens and growing fruits, vegetables and cereals),
2. intellectual greenery (to gain moral and cultural values from nature),

⁵ <https://dailybhutan.com/article/fostering-green-minds-through-green-schools-in-bhutan> <https://core.ac.uk/download/pdf/233056362.pdf>

<https://countercurrents.org/2020/04/the-green-school-initiative-in-bhutan-a-long-term-solution-to-future-pandemics/>

3. academic greenery (to understand science and philosophy as taught by the textbooks through natural surroundings),
4. social greenery (to learn peace, harmony, togetherness and tranquillity from nature and to indulge with all forms of physical constructions like school buildings, etc. in proper balance with nature),
5. cultural greenery (to learn from nature the various ways through which one can be rooted one's culture on the one side and embrace the temporal changes on the other),
6. spiritual greenery (to learn faith, devotion, loyalty and sincerity from nature),
7. aesthetic greenery (to eternalize the value of beauty through the natural surroundings) and
8. moral greenery (to enlighten and enrich one's body and mind through the greeneries around).



These eight components, which are encouraged and practiced by the students and the teachers in schools on a daily basis, support the ideology that nature is not a 'resource' for exploitation and overuse, but a foundation for all forms of civilizational activities in our daily life. Therefore, ecological preservation is given utmost importance in every facet of existence.

Already several countries like Canada, Italy, France, Thailand, Spain, Japan and Vietnam have started planning to adopt green school measures as a habitual part of teaching and learning, and several other countries are on the way to do it. In the hope that this practice of green school can be globally integrated to create a future that is "more relevant, thoughtful and aligned with sustainable practices".

With every school adopting this practice across Bhutan, it ensures infrastructural stability as well. Especially during situations like COVID-19, when the entire world is under lockdown and is reeling under a severe crisis of basic necessities, the situation in Bhutan is quite stable. Environmental conservation in Bhutan, through the green school initiative, has kept the infection rate remarkably low as compared to other nations with so called better medical infrastructures. Though, due to preventive measures the country is under lockdown, yet, unlike its neighbours, there has been no crisis with respect to basic necessities like food, water and shelter.

CASE STUDY: BALI – EDUCATION INSPIRING CHILD LED ACTIVISM GOES WORLDWIDE⁶

Bye Bye Plastic Bags is an NGO driven by youth to say NO to plastic bags

In 2013 Melati and Isabel Wijsen, then aged just 12 and 10 years old, started Bye Bye Plastic Bags after being inspired by a lesson in school about significant people, like Nelson Mandela, Lady Diana, and Mahatma Gandhi. The sisters returned home that day and asked themselves, *'What can we do as children living in Bali, NOW, to make a difference?'*

Bye Bye Plastic Bags was born and has grown into a well-known international movement of inspiration, youth empowerment, and campaigning for a world without plastic bags. Their advocacy and petition for six years played a part in the Bali government's decision to place a ban on all single-use plastics in 2018.

Through education, campaigns, and political meetings the group has expanded young people engagement from litter picks and clean ups. It now includes social enterprise programmes such as;

- The Mountain Mamas, a social enterprise empowering women to produce alternative bags from pre-loved materials.
- The Komitmen initiative, encouraging individuals, organizations, companies and government offices in Bali to eliminate the use of the five most pervasive plastics in the environment and to promote waste separation at the source in order to encourage better recycling and waste management
- The River Boom Project which encourages students to build DIY River Booms from recycled materials, to collect rubbish that would otherwise flow into the ocean or get stuck on the coastline.



These young change makers are strong believers that real change happens in the classroom. They talk to many students during school presentations and have developed an environmental educational booklet to get young students involved. *'We believe that once you know and learn about a problem, you want to be a part of the solution. We want youth to know and learn about the waste problem, so they can be a part of the solution. We believe that the Indonesian youth will lead towards a sustainable & green future.'*

The sisters have continued their work at international level, with TED talks, using social media and attending international conferences to inspire young people around the world to act themselves.

⁶ <http://www.byebyeplasticbags.org>

CASE STUDY SCOTLAND: RAISING ATTAINMENT AND SELF-CONFIDENCE THROUGH AWARDS INVOLVING CROSS CURRICULAR APPROACHES, OUTDOOR LEARNING AND LOCAL PARTNERSHIPS⁷

School team with NGO John Muir Trust and Local NGO to engage pupils with their wider community

Cadder Primary School, situated in the north of Glasgow, was proud of their whole school nurturing ethos and were keen to benefit their pupils' health and wellbeing. A partnership with Lambhill Stables – a local social enterprise and community hub was established. This provided experiential learning opportunities through its allotment space on the Forth and Clyde Canal in Glasgow allowed pupils to spending more time learning outdoors.

Utilising school grounds and then local community growing spaces at the Stables brought learning beyond the school gate. Reading, writing, drawing and maths were all integrated into their outdoor sessions, with a cross curricular approach helping create a varied programme of activities, including sketching and building natural sculptures, undertaking litter and soil surveys, and taking action to encourage more wildlife into the school grounds. Engagement in the John Muir Award added a sense of purpose to lessons and provided an overarching structure to learning experiences. Over time, students' willingness to get fully involved and engage with nature increased, with handling plants, picking up bugs and chatting to younger students about their learning becoming the norm. Adopting a pupil-led approach to learning, by taking time to just be in nature with no set agenda, delivered strong benefits, boosting students' confidence and happiness in observing and investigating their surroundings.

"None of the kids would get their hands dirty when we first started working with [them]. Now we've even got a number of students committed to the Environment and Youth Group sessions outside of school time!" Kelvin Archer, Lambhill Stables

To the surprise of teaching and delivery staff, this resulted in a new sense of appreciation of the outdoors, with students requesting to design and create a new garden space specifically for relaxation and reflection, complete with a special 'peace bench'. Self-reflection on the health and wellbeing benefits that can be gained from spending time outdoors also increased, with pupils noting: *"I like being able to go outdoors because it's relaxing and I like the fresh air" "I like seeing the bugs in the hotel and I like being allowed to just chill"*

Over the course of the project, staff at both organisations noticed real changes. The partnership approach was recognised as effective in supporting students emotionally, behaviourally and socially throughout the sessions. Most notably, increased levels of self-confidence shone through as the pupils relaxed into and learned more about outdoor spaces. As initial individual levels of anxiety reduced, group dynamics calmed, allowing pupils to feel more comfortable with each other, work well in groups and develop personal and academic skills which some of them may have struggled with inside the classroom. Results achieved by the students at the end of the academic year demonstrated a clear, improved academic performance. Receiving their John Muir Award certificates helped cement the pupils' sense of achievement, providing something tangible that, along with their muddy hands, they can look back on and take pride in their efforts to get outdoors and do something positive to care for their local green spaces.

⁷ www.johnmuiraward.org Autumn 2018 https://www.johnmuirtrust.org/assets/000/001/119/Cadder_Primary_School_-_How_dirty_hands_help_raise_attainment_original_original.pdf?1610737523 CASE STUDY:



Beyond your Boundary www.beyondyourboundary.scot The Learning in Local Greenspace project is part of Scotland's Biodiversity: A Route Map to 2020

CASE STUDY: IRELAND - ECO UNESCO⁸ YOUTH CLIMATE JUSTICE⁹

Engaging and empowering young activists – By young people for young people

Eco UNESCO is an environmental education and youth organisation working to channel the passion, creativity and energy of young people into positive environmental action. Through a range of programmes and services they inspire, educate, empower and support young people to act. Their Youth for Sustainable Development Programmes (YSD) involves 12 weeks of interactive environmental workshops to develop peer education skills, whilst learning about climate change, with a focus on the sustainable development goals. Young people participate in activities such as debates, games, trips, research and role plays, meeting and getting to know people from other schools in their area. This is followed by an action project, which involves devising a plan of action, as a group to tackle an environmental issue in their local area. YSD groups have started up across Ireland and an online group is also available.

These action projects are showcased through the Young Environmental Awards which (despite the pandemic) attracted over 500 entries in 2020. Children and young people across Ireland took diverse actions participating in a huge variety of creative ways to raise environmental awareness and improve the environment making a difference to their lives and the lives of others both locally and globally.

Eco Week aims to inform and equip young people with skills and knowledge on how to take action at an individual practical level and at local policy level on the theme of Youth Climate Justice. Young activists share their stories on how they have taken action in their communities.

They can

- Participate in workshops to support them to stand up, get heard and use creativity and politics as a vehicle to create change.
- Hear the stories of exceptional youth activists from around the world
- Understand how the world of politics and policies work
- Meet with politicians and policy makers
- Learn how to communicate climate justice to friends, family and climate deniers
- Think about artistic ways to communicate
- Explore the resource platform to improve their knowledge of climate justice and take inspiration for the future
- Meet other like-minded young people
- Attend the Climate Justice showcase event to hear what young people in Ireland have been doing to take action in their local community.

⁸ ECO-UNESCO is Ireland's environmental education and youth organisation affiliated to the World Federation of UNESCO Clubs, Centres and Associations (WFUCA).

⁹ <https://ecounesco.ie/>



Their research 'Youth Climate Voices the Youth Climate Justice Survey 2020' provides great insights into young people's take on the climate crisis and clues as to what NGOs can do to engage, motivate and empower.

NORTHERN IRELAND INTERVIEW AND SURVEY RESULTS

INTERVIEWS

Many NGOs in NI provide student workshops, teacher training (Initial and or In-Service), teaching/student resources and recognised Awards and Status (E.g. Eco Schools, Forest Schools etc) It's been acknowledged that accreditation initiatives provide the schools with a clear focus, structure and success criteria for developing aspects of EfS.

We conducted twenty-three virtual style interviews to gain a greater understanding of the sector, to hear their thoughts and 'vision' for the future development of EfS and to help direct our thinking when developing the strategy and action plan. Interviewees included both key stakeholders within the environmental and education sectors and also voices not typically heard (including small action groups such as Zero Waste and young people themselves – Teach The Future, Grassroots Challenge and Our Bright Future forums

Interviewees include-

- Brian Poots – Forest Schools NI
- Dr Ian Humphries -Keep NI Beautiful
- Prof John Barry – QUB
- Dr Karen Kerr – ITE QUB
- George Lyttle – Belfast City Council
- John McCarron – Causeway Coast and Glens Council
- Grainne O'Neill – Zero Waste Derry
- Andy Griggs – former chair of EE Forum
- Donna McFeely – St Columb's Park House, Derry
- Melanie Mulligan - CCEA
- Dr Amanda Slevin – QUB
- Alexey Janes and Dawn Patterson - Ulster Wildlife
- James Orr and Lynda Sullivan – Friends of the Earth
- Dr Jane Robb – Idverde UK Environmental Education Manager & Consultant with Westminster Foundation for Democracy
- Catherine Gleave – RSPB
- Stephen McCloskey and Caroline Murphy, Centre for Global Education Belfast
- Dr Michael Cross and Natalie McLucas – EA's School Development Service
- Maia Taylor – DAERA (Dept. of Agriculture and Environment and Rural Affairs)
- Dr Stephen Roulston - Ulster University Teacher Training
- Joe Brindle – Teach the Future UK
- Young people from youth forums – UW Grassroots Challenge and Our Bright Future
- Clíodhna Scott-Wills – NI Council for Integrated Education
- Charlene McKeown - Eco Schools NI
- Deirdre Doherty – Teacher of Best Practice Millstrand P.S Portrush
-

We spoke and corresponded with the initial teacher educator institutions to ascertain what was currently being covered and if any gaps that could be identified.

SURVEYS

Surveys were carried out to assess knowledge of EfS; existing engagement with EfS and to identify areas where EfS could be further supported (also to identify what types of EfS people are interested in engaging in).

We received a total of 184 responses, with the breakdown of the survey respondents as follows:

Teacher Survey: 73

Student Survey: 62

NGO & Organisation Survey: 29

University Lecturer Survey: 8

University Student Survey: 12

The following pages summarise key findings from each of the 5 categories of recipients along with survey participant recommendations (categorised as short and long-term) which are mirrored in the **Recommendations** section of this document.

Teacher Survey's Findings (73)

71% teach about environmental and sustainability issues in their classroom

76% noted that there was not enough class time to deliver environmental education

46% noted that the curriculum does not emphasise environmental education (and this is an obstacle to addressing it)

55% noted that more emphasis on EE/ESD in the curriculum would encourage them to focus more on the topic

74% noted that free, good quality in-service training would encourage them to focus more on the topic

- There is a lot of information out there but there is a need for local case studies and a more organised "library" of EE/ESD resources
- Believe that there is a need to gather specific impact examples of EE/ESD in NI
- Have a desire for age-appropriate info KS1, 3 and 4
- EE/ESD teaching and learning opportunities exist as a topic in its own right as well as through examples in other subject areas
- Personal interest currently drives many teacher's involvement in EE/ESD
- Recycling and reduction of food waste are a common focus for EE/ESD

"Children need nature, nature needs children" Respondent Teacher survey

RECOMMENDATIONS ON HOW NGOs CAN SUPPORT TEACHERS (from survey findings and interviews)

- On-line EfS one-stop-hub for educators in Northern Ireland
- NIEL's ESDF could host an on-line library of local NGOs providing EfS
- NGO members presence on this site could include a synopsis of their education offer and signposting to relevant opportunities
- This one-stop-hub should be easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org)
- A web version of the information that was previously disseminated through the ESDF newsletter could be communicated through this and promoted through social media

- This web presence could include;
 - Teacher professional learning opportunities
 - Support for schools
 - Up to date communications in response to current events
 - Bitesize lesson ideas
 - Showcase of 'green' careers, vocational opportunities, apprenticeships and employment.
- Resources presented need to be easily accessible, downloadable, kept up to date and relevant whilst being responsive to current affairs where possible
- The use of copyable printable worksheets etc. should be discouraged
- Adequate resourcing to support this, such as additional funding to support a staff member, should be sought to maintain this.
- All activities should be grounded in best practice as evidenced in research.
- NGOs could provide work experience placements for Key Stage 4 and tertiary students.
- Indicators for good EfS practice could be identified and local case studies shared.
- NGOs could contribute to the existing frameworks and partnerships established through Eco Schools, in particular developing resources and support for those topics where uptake is lower, especially the global dimension.
- NGOs could target businesses and foundations to fund their education work as part of their corporate social responsibility.

Educational Resources for Teachers and Activities offered through Outdoor Learning and Field Visits should:

- Include opportunities to appreciate and connect with nature, promoting a sense of awe and wonder in the natural world.
- Consider including knowledge and understanding of opportunities to mitigate the climate and ecological crisis.
- Include education relating to sustainability as well as the environment / ecology.
- Value nature for its intrinsic worth and its uniqueness in our known universe.
- EfS needs to be considered through more than an anthropocentric lens.
- Use critical literacy approaches to explore environmental issues from multiple perspectives.
- Use the United Nations Sustainable Development Goals as a map for connecting education in this area.

- Aim to include social, economic, and political lens to their environmental work, stressing the interconnected nature of our planet.
- Extend workshops beyond recycling and biodiversity.
- Include case examples of sustainable practice as individuals, groups and as communities.
- Highlight the benefits of connecting with nature and its contribution to wellbeing.
- Connect personal wellbeing to planetary wellbeing.
- Be cautious of exacerbating climate/eco-anxiety by presenting ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.
- Link new and existing educational material to the provision in the NI curriculum, highlighting relevant;
 - key stages
 - areas of learning
 - cross curricular skills
 - thinking skills and personal capabilities and
 - attitudes and dispositions
 - connected learning opportunities
- Resources should include;
 - Rationale
 - Knowledge and understanding of the issues explored.
 - Any opportunities for outdoor learning or field trips
 - Children and young people's voice/ participation
 - Ideas for taking action whether individually, as a group, school, local or wider community
 - Case studies of good practice
 - Progression on a topic through the educational experience
- Widen the reach of EfS beyond its traditional homes in World Around Us, Science and Geography.
- Become familiar with the NI curriculum and explore how their work could be made more widely relevant across the curriculum. For example, to include literature, poetry, art, music, maths, history, ICT, PDMU, Learning for Life and Work (citizenship and employability).
- Develop resources and activities for KS1, 3 and 4. (KS2 is well catered for)
- EfS through the ESDF could provide support or guidance for NGOs wishing to adapt or connect their materials to the curriculum.

- Resources could be created or adapted to suit different key stages and linked to topic work in primary or different subjects at post primary and tertiary levels.
- NGOs should keep the NI curriculum in mind when preparing new educational materials.
- Consideration should be given to EfS for children and young people with additional needs. NGOs could seek advice from special educational needs providers as to how to accommodate learning needs to ensure children and young people have full access to EfS. Employability opportunities for these young people could be explored.
- Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement. This local engagement could provide valuable real-world opportunities for getting involved and taking action for real change.
- NGOs could collaborate to support the development of quality material for schools, coming together to raise awareness and encourage action in the most pressing local and global issues.
- Quality and up to date resources should be shared through the CCEA website for promotion to educators.
- Whole school approaches to EfS should be supported and strongly recommended with NGOs offering.
- Pay attention to current trends in education such as drives for numeracy and literacy, futures thinking, STEM and mental health and wellbeing foci.

RECOMMENDATIONS - NGO ACTIONS TO SUPPORT TEACHERS TEACH EfS

Short Term	Long Term
<ul style="list-style-type: none"> • ESDF could establish a working group focused on developing EfS policies and practice in NI • NGOs need to support teachers with content to teach EfS. They're <i>'fed up with every issue landing on their doorstep. They're not experts and need training'</i>. • Capitalize on current trends such as connecting good mental health and well-being to nature and the outdoors and promote their work • Support and promote upcoming major events such as COP26 to capitalize on media attention • Collaborate with the EA's Magilligan Field Study Centre to develop a more structured approach to EfS • ESDF should host a one stop hub so teachers can easily find what they need • Adapt resources to reflect urgency of climate and ecological crisis - especially for KS1, 3 and 4 • NGOs need to provide teachers with local case studies and examples of best practice in terms of sustainability. • Extend workshop offerings beyond recycling and biodiversity • NGOs should see how their work links into school awards such as Eco Schools, Duke of Edinburgh, John Muir, President's Award etc • Appoint experienced facilitators to update education resources and activities • Said resources need to include social, 	<ul style="list-style-type: none"> • Invest in an Education Officer for the forum's EfS work • Partner with businesses to support NGO EfS work e.g., Supermarkets such as Lidl and large companies such as Allstate etc who fund programmes via their corporate social responsibility • Explore business partnership opportunities with for e.g., Business in the Community and Bridge 47 • Advocate for Dept. of Education to award a salary 'responsibility point' to teachers who coordinate EfS in school • Advocate for additional Field Studies Centres such as the one at Magilligan • Explore additional ways to reach out to educators e.g., invite supply cover teachers to avail of free online training

economic and political lens as well as environmental stressing the interconnections of our planet

- Educators need to be trained in how to teach about EfS in a way that enthuses and empowers young people
- Promote world recognised calendar dates such as Mother Earth Day
- Share activities on NI Teachers Collaborate Facebook and other relevant platforms

CHILDREN AND YOUNG PEOPLE SURVEY FINDINGS (62)

43% of respondents were in primary school, **57%** in post-primary

46% thought that environmental issues were focused on a little,

7% hardly at all, **2%** not at all

92% noted that they learned about recycling (the highest noted topic) with only **19%**

mentioning learning about protecting waterways (the least noted topic)

71% strongly believe that schools should be doing more to help students help the

environment

80% of students who would like to be involved in projects or activities at their school that help the environment

65% of respondents had heard of climate change but either knew little or weren't sure

what it was whilst **5%** had not heard of it

88% of respondents were worried to some extent about climate change

85% cited that school was the main source of information about climate change and

sustainable development

- **The Pupil Surveys demonstrate that young people are prioritizing how to live a sustainable life**

"Adults/schools [should] practise what they preach - lead by example"

Respondent pupil survey

RECOMMENDATIONS ON HOW NGOs CAN SUPPORT CHILDREN AND YOUNG PEOPLE (from surveys and interviews)

- Widen the reach of EfS beyond its traditional homes in the World Around Us and in Geography and Science in KS3 and KS4
- Develop opportunities to educate for EfS using local case studies which provide children and young people with hands on, up close and personal engagement. This local engagement could provide valuable real-world opportunities to encourage action. The case studies should be examples of best practice
- Adults and schools should lead by example, practicing what they preach. Living sustainability should be the norm practiced in school and in local communities
- Any resources being produced should include children and young people's voices and participation
- Children and young people can be resilient. They want to be told the truth about tipping points, allowing them space to express their anxieties but then empowering them to have hope rather than despair and to take action for change.
- They want a revision of the school curriculum. They want to be taught about both the climate and ecological crisis and hence need their teachers to be adequately trained
- Some teachers give them 'Information but not passion!'
- Young people want the climate crisis to be a 'golden thread' throughout all subject areas. Others suggested creating a curriculum topic called 'Human Impact' and exploring issues such as hunting, deforestation, climate crisis, animal extinction and habitat destruction
- They 'want a good economy that works in harmony with the planet'
- Some young people want to be actively encouraged and supported to take action e.g., Fridays for Future, Climate Strikes
- Young people want to know more about 'Green Jobs and Green Apprenticeships. Their school career teachers know little if anything about this new sector.
- Children and young people want to be taught outdoors, they want all pupils to avail of field trips and experiences in nature. There is a need for more field centres.

RECOMMENDATIONS NGO ACTIONS TO SUPPORT CHILDREN AND YOUNG PEOPLE

Short Term	Long Term
<ul style="list-style-type: none"> • Provide school careers teachers' with ideas for green career opportunities and organise green careers fairs such as that run by Belfast Hill Partnership 'Environmental Green Careers Festival, 19th - 26th April 2021 (belfasthills.org/environmental-careers-festival) • Help young people to 'adopt a green space' in their school grounds • Ensure workshops empower children and young people by providing opportunities for them to take action 	<ul style="list-style-type: none"> • Supporting young people advocating for a curriculum review • Providing TPL training for teachers on the climate and ecological crisis • Advocate for additional Field Study centres • Advocate to address inequality of access to outdoors for children and young people • Advocate and support other action groups calling on the government to ensure new schools are sustainable and retrofit existing schools accordingly

NGOs FINDINGS (29)

61% of the responding organisations were members of the ESDF

82% targeted schools for delivery of programmes

96% target Key Stage 2, **85%** target Key Stage 3 with only **65%** targeting A-Level and tertiary level

100% believe that there is a need for a NI Environmental and Sustainable Development

Sector to have a cohesive strategy

Challenges:

- Recruiting suitably qualified and experienced staff
- Lack of collaboration within the sector
- Budget constraints
- Many NGOs target their resources/activities at KS2 level

Opportunities:

- Many have expressed desire to offer EE to KS3/4
- Stronger focus on Climate Justice in the general public
- Wealth of opportunities to engage in nature
- Opportunity to work with Youth Award schemes
- Many agree that there is a need for transformation

“[The] Bigger focus on health and wellbeing as we come out of Covid19 [will help to increase an interest in EE & ESD]”

NGO survey respondent

NGO RECOMMENDATIONS TO SUPPORT FORMAL SECTOR (from survey findings and interviews)

- Be bold and hopeful, balancing the necessary sense of urgency with realistic possibilities for change. Recognise that people are more likely to work towards something positive than be moved by fear alone
- Use positive psychology and avoid 'doom and gloom' only presentations of climate change which are likely to overwhelm, at best, or terrify at worst
- Aim to empower, encouraging a sense of agency rather than avoidance
- Encourage 'big picture' thinking, reflecting the interconnected nature of life on Earth
- Support 'futures thinking' methodologies that work toward 'what we want' rather than 'what we don't want' future scenarios
- Value kinder, more sensitive approaches to ourselves, others and the planet
- Include opportunities for real action whether as individuals, groups or communities
- Suggest an array of ideas for action, such as personal choices, practical actions, political participation or civic engagement
- Appreciate that actions can vary in scale and reach and all are valuable
- Motivate, engage and enthuse more children and young people, encouraging them to share what they learn to motivate, engage others including friends, family, businesses and the wider community.
- Advocate for sustainability more widely including infrastructure, agriculture, water and waste management and in business.
- Present real-life examples of how positive change has and is happening. Encourage optimistic outlooks, presenting ideas and possible solutions to the climate crisis with real examples of positive change making a difference.
- Recognise that effective EfS requires education about sustainability, for sustainability through sustainability with advocacy for positive change an essential component.

Cooperation to deliver on wider education initiatives

- ESDF could support NGOs to become more familiar with funding strands available to schools through wider education initiatives such as those from the EA e.g., 'Shared Education', 'Health Well Programme'. NGOs could tailor EfS offerings to coincide with these agendas e.g., offering advice and support on increasing biodiversity in school grounds, providing 'wellbeing in nature' courses or shared EfS opportunities for schools such as tree planting, pond digging, travel to school schemes, 'green corridor' or 'green spot' development for schools.

Opportunities for partnership and collaborative working:

- Overlaps between EfS and Development Education as supported by the development NGO sector, should be exploited
- Critical literacy and global citizenship education should be integral to EfS
- Collaboration with human rights-based organisations with experience delivering other action-based outcomes such as members of the Coalition of Aid and Development Agencies (CADA) and the Centre for Global Education, may be beneficial and present a united front calling for change. ESDF could work collaboratively with the CADA and the Centre to support Connected Learning opportunities and the revision of the current curriculum to include stronger reference to sustainability.
- When advocating for change in policy and practice, partnership working should be the norm.
- Co-operation for public awareness and engagement campaigns should be usual practice
- Joint research related to sustainability and environmental issues should be promoted to maximise available funding and resources. Completed research should be widely shared and could be included in a section on the ESDF site.
- ESDF should be aware of EfS practice internationally, learning from best practice to share within Northern Ireland
- Exploit current opportunities in the political arena, such as the Net Zero, Green New Deal, NI Climate Bill, Covid 19 pandemic, the drive for circular economies, systems reset, COP26 and UN Sustainable Development Goals to activate support for climate justice. The NIEL coalition can encourage its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy.
- Act together and learn from practice in other parts of the world especially grass roots initiatives that have inspired national change .
- Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.
- Develop a connected learning idea for KS3 focusing on EfS and revise and update the existing 'Dodging Doomsday ' resource and consider an alternative, more hopeful title.
- Together call for increased focus on EfS throughout all levels of education ensuring all learners' entitlement to learning for sustainability.
- Competitions, conferences and awards could be used as an incentive for schools to get involved in EfS, as an encouragement for those who already are involved and as an acknowledgement of achievements.
- ESDF NGOs should consider how their work provides opportunities for young peoples' engagement and interest in volunteering, entrepreneurship and those completing young leaders awards and initiatives such as Duke of Edinburgh and President's Award.
- NGOs could support vocational courses and apprenticeships offered by post primary schools
- ESDF / NIEL to Raise awareness of EfS activities and achievements using traditional and social media avenues such as local news and TV.

- Actively support and encourage involvement in national campaign action groups e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.
- ESDF could host online Information Sessions for local action groups to provide teachers with live case studies e.g., Save Our Sperrins, Zero Waste and Stop the Incinerator
- Promote young people's participation by;
 - showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes.
 - also children and young people involved in EfS have regular opportunities to come together more informally to learn from each other
 - Linking to children and young people in other parts of the UK, Ireland and the wider world

Use Positive Psychology

For example, use 'environmental handprints' as a measure of what we are doing right, such as cycling to places, consuming local food and using renewable energies. This positive psychology aims to increase the handprint rather than the negativity associated with 'decreasing your carbon footprint'. Supporters of this approach suggest this encourages communities to be more enthusiastic about sustainability

RECOMMENDATIONS - NGO ACTIONS TO SUPPORT EfS IN THE FORMAL SECTOR	
Short Term	Long Term
<ul style="list-style-type: none"> • A radical shift in mindset is needed in the short term to reflect the urgency needed as we reach world tipping points. Time for action is now • Establish an ESDF working group to inform practice, keep direction, pool resources, support each other etc • Invite lapsed NGOs members and those who expressed interest via the surveys to join ESDF • Critical literacy and global citizenship should now be integral to the work of all Environmental NGOs • All EfS resources and activities need to reflect the point above • NGO educators should be offered training to upskill and integrate global citizenship, carbon literacy etc into their training offering • NGOs need to link their resources to curriculum requirements • Be honest but positive and hopeful that we can mitigate against the worst impacts of climate change • Disseminate this strategy and action plan throughout formal education sector • ESDF should host local campaign action group webinars providing teachers/lecturers with 'live' case studies e.g., Save our Sperrins, Fossil Free NI, Climate NI, Friends of Glassmullin Open Green etc. • Actively encourage teachers and young people's involvement in national campaign groups e.g., Fridays for Future, Teach the Future, Parents for Future etc. • Increase EfS social media presence and share activities on Facebook and other relevant platforms. 	<ul style="list-style-type: none"> • ESDF/NIEL could act as a learning hub with NGOs providing twilight and e-learning courses • Establish a strong network of prominent NGOs who are committed to making tangible change to create a sustainable world • Co-operation for public awareness, engagement and action campaigns is the norm • Collaborate with Human Rights and Development sector NGOs to present a united front and advocate for systems change • Act together and learn from best practice around the world • Showcase and celebrate achievements of children and young people. Encourage and enthuse their passion for change • Link in with Green Growth, Green Recovery and Green New Deal to avail of additional funds to support EfS

LECTURERS SURVEY FINDINGS (8)

7 out of 8 address environmental issues in their lectures or course materials

5 out of 8 stated that there is not enough class/lecture time to introduce environmental education beyond curriculum requirements

6 out of 8 believe that students should know more about the environment

5 out of 8 stated that they would be encouraged to focus on or include more EE/ESD related topics if they were emphasised more in curriculum materials and if there was

more in-service training for lecturers

7 out of 8 would like more EE/ESD teaching resources

- Lecturers would like more local case studies
- More examples and case studies of how people can live in a sustainable way.

"I think these issues need to be mandatory within the curriculum. The flexible nature of the WAU requirements allows vital work to be left out! This in itself is UNSUSTAINABLE" Lecturer Survey Respondent

RECOMMENDATIONS ON HOW NGOs COULD SUPPORT TEACHER EDUCATION (From surveys and interviews¹⁰)

EfS, whether at initial teacher education or through continuing professional development, provides an ideal opportunity to reflect on the overall purpose of education in our 'rapidly changing world'.

- NGOs could collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to teach sustainability in the classroom', 'Connecting personal well-being to planetary well-being,' 'Climate literacy', 'Futures thinking' etc. NGO's expertise could assist with design and delivery
- NGOs should work with universities when concluding research or programme monitoring and evaluation so that their work is grounded and based on up-to-date research

¹⁰ Comments made during interviews with University Lecturers

- NGOs could offer lecturers/ teachers time outside of the classroom to reflect on the state of the world and increase their own understanding of the threat of the climate crisis
- In conjunction with universities, NGOs could offer their expertise delivering accredited courses to develop understanding, passion, practice and commitment to EfS. These could include shorter e-learning courses through to Master Level.
- NGOs should share their expertise and passion to develop teacher/lecturer confidence and commitment to education for sustainability, recognising that personal passion is a major driver for classroom practice. Opportunities for teachers to spend time in nature and connect with their local environment would be invaluable
- Local NGOs could offer training and resources to ensure lecturers are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020)
- ESDF members could support teacher-led peer professional learning opportunities relating to EfS which should be aligned with the vision and characteristics as outlined in the 'Learning Leaders, A Strategy for Teacher Professional Learning 2020

NGO ACTIONS TO SUPPORT TEACHER EDUCATION

Short Term	Long Term
<ul style="list-style-type: none"> • Disseminate this report and recommendations within the formal education sector including the EA, CCEA, Department of Education. • Provide lecturers with local case studies and examples of best practice • Deliver workshops/training in universities and offsite at NGO centres • Educators need to be trained in how to teach about EfS in a way that empowers students • Host events in association with the Universities to attract college audience • Invite university lecturers to sit on NGO boards • Invite lecturers to sign up for newsletter etc. to keep them informed of EfS activities and opportunities 	<ul style="list-style-type: none"> • Establish fruitful partnerships between NGOs and universities • Submit joint funding bids for educational work • In association with universities NGOs could provide work placements, accredited courses, including short e-learning courses through to Master's level

PGCE STUDENTS' SURVEYS (12)

7 out of 11 said they learned about sustainable development and environmental issues in their university

8 out of 11 strongly agree or agree that sustainable development and environmental education should be essential parts of initial teacher training

7 out of 11 strongly agreed or agree that they felt informed about sustainable development and the environment

10 out of 11 would like to know more about sustainable development and believe that the environment should be essential parts of initial teacher/lecturer training

"Their job is to educate people in their chosen course not to pursue political agendas!" PGCE Student Survey Respondent

PGCE STUDENTS' RECOMMENDATIONS (from surveys and interviews)

- Student teachers should be supported to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.
- NGOs could offer short term placement opportunities for student teachers as part of their (non-school based) 3rd year placements
- NGOS could offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term)
- NGOs could provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.
- NGOs should share their expertise and passion to develop teacher confidence and commitment to education for sustainability, recognising that personal passion is a major driver for classroom practice. Opportunities for teachers to spend time in nature and connect with their local environment would be invaluable.

RECOMMENDATIONS - HOW NGOs CAN SUPPORT PGCE STUDENT TEACHERS

Short Term	Long Term
<ul style="list-style-type: none"> • NGOs could offer Initial Teacher Education workshops/activity training days for PGCE Students • NGOs could establish student led EfS clubs and societies • Student teachers should be encouraged to sign up for ESDF newsletter and follow on social media • Provide student teachers with free NGO membership • Host free PGCE days to showcase NGO work • Provide EfS activities/resources aligned to their subject modules 	<ul style="list-style-type: none"> • Provide placement opportunities for undergraduate and post graduates • Utilise skills of student teachers to support education work in NGOs • Provide opportunities for student teachers to get involved in action campaigns • Build long term meaningful relationship with student teacher as they embark on teaching careers

But like for me, what is important is like the teachers. So, like, I remember like my miniscule environment education, it was just like my science teacher reading off the textbook, like what our greenhouse gases, what are different types of energy. And that was like all I learned. And like, as a 14-year-old, like, that wasn't engaging. I wasn't interested in that, like at all until later on, like, I remember what I like, by chance for my friends. So, it's like the other 24 people in my class or whatever, like they didn't, you know, they're not engaged, which is there's just like a cycle of people not being engaged.

NI young person, February 2021

RECOMMENDATIONS

STRATEGY VISION STATEMENT

For Northern Ireland's schools, staff and students to understand the importance of responsible stewardship of the environment and sustainability through a whole school and cross-curricular approach to Education for Sustainable Citizenship.

STRATEGY MISSION STATEMENT

To support educators, statutory agencies, NGOs, and communities to understand the importance of Education for Sustainable Citizenship in all aspects of daily and community life.

STRATEGY CORE VALUES

Lifestyle

We want to help people to understand that environmental protection is a lifelong way of living and that human beings are a part of the natural world, not something outside of it.

Awareness

We want to raise awareness of environmental issues and how these matter in day-to-day life for all citizens.

Knowledge

We want to help NI citizens to acquire knowledge of local, regional, national and global environmental concerns.

Attitudes

We want to help NI citizens gain a sense of connection to the natural world and develop values which embrace sustainability and protection of the planet and its biodiversity with commitment and confidence.

Skills and Capacity Building

We want to help policy makers, educators and students develop the skills to understand the complexity of sustainability and the environment and to develop the ability to imagine solutions that can be actioned.

Participation

We want to provide opportunities for Northern Ireland's citizens to be actively involved and to have the ability to positively impact environmental and sustainability decision making.

Natures resources still do not figure in countries' calculations of wealth. The current system is weighted towards destruction, not preservation. The bottom line...is that we need to transform how we view and value nature. We must reflect nature's true value in all our policies, plans and economic systems.

UN Secretary General Antonio Guterres

TEACHING AND LEARNING RESOURCES - DEVELOPMENT AND ACTIONS:

Strategy	What it looks like
One-stop-hub for Northern Ireland Educators which is easily accessible and navigable, downloadable and kept up to date and relevant by being responsive to current affairs where possible.	<p>Online EfS searchable resource¹¹ which:</p> <ul style="list-style-type: none"> • Shares teacher professional learning opportunities • Provides up-to-date communications in response to current events • Offers curricular materials and lesson plans¹² (including bite-sized lessons ideas)¹³ • Showcases “green” careers and employment • Highlights vocational opportunities and apprenticeships • Includes NGOs providing EfS work <ul style="list-style-type: none"> ○ synopsis of their educational offers ○ signposting relevant work • ESDF Web version newsletter (promoted on the searchable database and social media) • Identify and promote EfS good practice indicators using local case studies
NGO work experience placements	<p>Coordination of work experience placements for Key Stage 4 and tertiary students</p> <p>NGOs compile a list of suggestions for potential research opportunities for tertiary students to use for dissertation or project work.</p>
Contribute to and complement existing and established frameworks and partnerships	<p>Work with Eco Schools, in particular through the development of resources and support topics where uptake is lower, especially with regard to global dimensions</p> <p>Work with Fairtrade schools to assist them to address Fairtrade issues through a EfS lens</p> <p>Work with UNESCO ASPNET schools and Connecting Classrooms through Global Learning schools</p> <p>Identify other school initiatives where EfS support could assist with achievement and development towards a goal</p>
Targeting of businesses and foundations to encourage funding EfS initiatives	<p>Working in partnership, complimentary NGOs should target businesses¹⁴ and foundations to fund their educational work.</p>

¹¹ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

¹² Use of copyable printable worksheets etc. should be discouraged

¹³ All activities should be grounded in best practice as evidenced in research

¹⁴ As a part of their commitment to Corporate Social Responsibility (CSR)

NGO EDUCATIONAL RESOURCES AND ACTIVITIES OFFERED THROUGH OUTDOOR LEARNING AND SITE VISITS SHOULD INCLUDE:

Strategy	What it looks like
EfS Engagement	<p>Through:</p> <ul style="list-style-type: none"> • Opportunities to appreciate and connect with nature, promoting a sense of awe and wonder in the natural world showing the value of nature for its intrinsic worth • Expanding on the most common EfS engagements (recycling and biodiversity) by introducing other areas and actions that support sustainability • Highlight the benefits of connecting with nature and its contribution to wellbeing through experience • Widen the reach of EfS beyond its traditional homes in World Around Us, Science and Geography • Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement. <ul style="list-style-type: none"> ○ This local engagement could provide valuable real-world opportunities for getting involved and taking action for real change
EfS Knowledge & Understanding	<p>Include knowledge and understanding of:</p> <ul style="list-style-type: none"> • Opportunities to mitigate the climate and ecological crisis • Sustainability, the environment and ecology • The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas • Include case examples of sustainable practice as an individual, group, community and nation • Connect personal wellbeing to planetary wellbeing • Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems. • Encourage self/group generated ideas to meet local, national and planetary challenges • Resources should include: <ul style="list-style-type: none"> ○ Rationale ○ Knowledge and understanding of the issues explored. ○ Any opportunities for outdoor learning or field trips ○ Children and young people's voice/ participation ○ Ideas for taking action whether individually, as a group, school, local or wider community ○ Case studies of good practice ○ Progression on a topic through the educational experience

Our school grounds need not be deserts but can be transformed into pockets of rich biodiversity. Children and young people can gain so much from their involvement in that transformation process and becoming stakeholders in their natural surroundings.

Michael Cross EA, School Development Service

Strategy	What it looks like
Framing	<p>Teach and model:</p> <ul style="list-style-type: none"> • Viewing the world through more than just an anthropocentric lens • Critical literacy used to engage and explore environmental issues from multiple perspectives • Using social, economic, and political lenses to environmental work, stressing the interconnected nature of our planet • Frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety
Curriculum & Curriculum Understanding	<ul style="list-style-type: none"> • Become familiar with the NI Curriculum and explore how work could be made more widely relevant across the curriculum. For example, to include: <ul style="list-style-type: none"> ○ Literature & poetry ○ Art & music ○ Maths ○ History ○ ICT ○ PDMU ○ Learning for Life and Work (citizenship and employability) • Link new and existing educational material to the provision in the NI Curriculum, highlighting relevant: <ul style="list-style-type: none"> ○ key stages ○ areas of learning ○ cross curricular skills ○ thinking skills and personal capabilities and ○ attitudes and dispositions ○ connected learning opportunities • Any new material development should be tied into the NI Curriculum requirements • Develop resources and activities for KS1, 3 and 4. (KS2 is well catered for) • Seek advice from the ESDF for guidance on how to adapt or connect their materials to the curriculum <ul style="list-style-type: none"> ○ Creation of resources or adaptation of resources to suit different Key Stages and linked to topic work in Primary or different subjects at post primary and tertiary levels • Quality and up to date resources should be shared through the CCEA website and other appropriate channels for promotion to educators • Actively monitor current trends in education such as drives for: <ul style="list-style-type: none"> ○ Numeracy and literacy ○ Futures thinking ○ STEM ○ Resilience ○ Mental health and wellbeing

Strategy	What it looks like
Expanded EfS Opportunities for partnership and Engagement	<ul style="list-style-type: none"> • Consideration should be given to EfS for children and young people with additional needs. <ul style="list-style-type: none"> ○ NGOs could seek advice from special educational needs providers as to how to accommodate learning needs to ensure children and young people have full access to EfS. ○ Employability opportunities for young people with additional needs could also be explored. • NGOs could collaborate to support the development of quality material for schools, coming together to raise awareness and encourage action in the most pressing local and global issues • NGOs/NGO partnerships should actively promote whole school approaches to EfS

And, and for instance, a lot of environmental education is sort of centred around this idea that we are separate from the environment - that there are humans, and there is nature. And that's it's not the case, you know, we are nature, we are completely intertwined with it, you can't separate the two and, and also that narrative kind of links into quite an imperialist narrative as well of like, taking over a nature, ownership of nature. **Jane Robb, Westminster Foundation for Democracy, Teach the Future member and Environmental Education Manager, High Elms Country Park, London**

COOPERATION TO DELIVER ON WIDER EDUCATION INITIATIVES:

Strategy	What it looks like
Funding Support &	<p>ESDF could support NGOs to become more familiar with funding strands available to schools through wider education initiatives such as those from the EA, e.g., 'Shared Education', 'Health Well Programme'.</p> <ul style="list-style-type: none">• NGOs could tailor EfS offerings to coincide with these agendas, for example by offering advice and support on increasing biodiversity in school grounds, providing 'wellbeing in nature' courses or shared EfS opportunities for schools such as tree planting, pond digging, travel to school schemes, 'green corridor' or 'green spot' development for schools.

My geography teacher gave me information but not passion.

(NI young person, Grassroots meeting)

OPPORTUNITIES FOR NGO PARTNERSHIP AND COLLABORATIVE WORKING:

Strategy	What it looks like
Collaborations & Partnerships	<p>Collaboration with human rights-based organisations and with development and development education organisations with experience delivering other action-based outcomes such as:</p> <ul style="list-style-type: none"> • members of the Coalition of Aid and Development Agencies (CADA) • The Centre for Global Education • Trócaire • Christian Aid <p>NGOs should consider how their work provides opportunities for young peoples' engagement and interest in volunteering, entrepreneurship and those completing young leaders awards and initiatives such as Duke of Edinburgh and President's Award.</p> <p>NGOs could support vocational courses and apprenticeships offered by post primary schools</p> <p>Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.</p>
Collaboration & Partnership Influencing¹⁵	<p>Opportunities for partnership may be beneficial in:</p> <ul style="list-style-type: none"> • Seeking support and funding • Building momentum through the presentation of a united front calling for more focus on EfS and change • Providing opportunities to present connected learning opportunities • Influencing the curriculum to include stronger reference to sustainability and EfS skills like critical literacy and citizenship <p>Benefits of collaboration and partnerships can:</p> <ul style="list-style-type: none"> • Offer the opportunity for a more amplified voice for public awareness and engagement campaigns (and should become the norm in the sector) including utilizing social and mainstream media encouraging advocacy at political levels • Offer the chance to conduct joint research related to sustainability and environmental issues. <ul style="list-style-type: none"> ◦ Joint applications for research funding ◦ Completed research should be widely shared and could be included in a section on the ESDF site. • Together call for increased focus on EfS throughout all levels of education ensuring all learners' entitlement to learning for sustainability.
Research	Ongoing research of practice in other parts of the world especially grass roots initiatives that have inspired national change.

¹⁵ When advocating for change in policy and practice, partnership working should be the norm.

**ESDF & NIEL
Monitoring**

ESDF

- ESDF could provide a learning hub with NGOs providing twilight and e-learning courses
- ESDF should monitor and keep pace with EfS practice internationally, learning from best practice to share within Northern Ireland
- ESDF could run competitions, conferences and awards could be used as an incentive for schools to get involved in EfS, as an encouragement for those who already are involved and as an acknowledgement of achievements.

Exploit current opportunities in the political arena, to activate support for climate justice such as:

- Net Zero
- Green New Deal
- NI Climate Bill
- Covid 19 pandemic
- The drive for circular economies
- Systems reset
- COP26

Consider hosting online information sessions for local action groups to provide teachers with live case studies e.g., Save Our Sperrins, Zero Waste and Stop the Incinerator

Promote young people's participation by:

- Showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes.
- Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other
- Linking to children and young people in other parts of the UK, Ireland and the wider world

NIEL

- The NIEL coalition can encourage its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy.
- Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.
- Develop a connected learning idea for KS3 focusing on EfS and revise and update the existing 'Dodging Doomsday' resource and consider an alternative, more hopeful title.

ESDF / NIEL

Raise awareness of EfS activities and achievements using traditional and social media avenues such as local news and TV.

INITIAL TEACHER EDUCATION AND TEACHER PROFESSIONAL LEARNING:

EfS, whether at initial teacher education or through continuing professional development, provides an ideal opportunity to reflect on the overall purpose of education in our 'rapidly changing world'.

Strategy	What it looks like
Educate & Skill Teachers in Northern Ireland	<p>NGOs:</p> <ul style="list-style-type: none"> • could offer teachers time outside of the classroom to reflect on the state of the world and increase their own understanding of the threat of the climate crisis. • NGOs could offer accredited courses to teachers to develop their understanding, passion, practice and commitment to EfS. These could include shorter e-learning courses through to Masters Level. • Support teachers to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education. • Share their expertise and passion to develop teacher confidence and commitment to education for sustainability, recognising that personal passion is a major driver for classroom practice. • Providing opportunities for teachers to spend time in nature to connect with their local environment would be invaluable. • Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to teach sustainability in the classroom', 'Connecting personal well-being to planetary well-being', 'Climate literacy', 'Futures thinking' etc. NGO's expertise could assist with design and delivery. • Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020). • Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements. • Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term). • Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this. <p>Teachers should be supported to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.</p> <p>ESDF</p> <ul style="list-style-type: none"> • Members could support teacher-led peer professional learning opportunities relating to EfS which should be aligned with the vision and characteristics as outlined in the 'Learning Leaders, A Strategy for Teacher Professional Learning 2020

We need to the whole climate situation, like we have, obviously recycled bits in our school, which was implemented by students at a student council, more than like the teachers themselves taking initiative on tackling the climate crisis.

NI young person, February 2021

ACTION PLANS

1 RESOURCING

Recommendation	To Achieve this	Specific Actions & Indicators
1.1 Seek appropriate financial and staff resources to support Action Plan recommendations and actions	<p>Assess existing capacities</p> <p>Identify needs and gaps</p> <p>Source funding and support</p>	<p><u>1.1.A</u></p> <ul style="list-style-type: none"> Conduct an internal staff and resource audit to benchmark Action Plan actions that can be met internally, within NIEL and ESDF network and through other existing platforms and networks <p><u>1.1.B</u></p> <ul style="list-style-type: none"> Identify where staff, resources and funding will be needed to achieve Action Plan recommendations and actions. <p><u>1.1.C</u></p> <ul style="list-style-type: none"> Identify funding sources Secure funding to support action plan recommendations and actions that could not be met using existing capacities.

2 TEACHING AND LEARNING RESOURCES

Recommendation	To Achieve this	Specific Actions & Indicators
2.1 One-stop-hub for Northern Ireland Educators which is easily accessible and navigable, downloadable and kept up to date (relevant) by being responsive to current affairs where possible	<p>Online EfS searchable resource¹⁶ which:</p> <p>Shares Teacher professional learning opportunities</p> <p>Provides up-to-date communications in response to current events</p> <p>Offers curricular materials and lesson plans¹⁷ (including bite-sized lessons ideas)¹⁸</p> <p>Showcases “green” careers and employment</p> <p>Highlights vocational opportunities and apprenticeships</p> <p>Includes NGOs providing EfS work</p> <ul style="list-style-type: none"> • synopsis of their educational offers • signposting relevant work <p>ESDF Web version newsletter (promoted on the searchable database and social media)</p>	<p><u>2.1.A</u></p> <ul style="list-style-type: none"> • Review similar ‘hubs’ in other sectors and set out parameters • Liaise with EA and CCEA to develop partnership and buy in. • Agree where one-stop-hub is situated and manage • Develop comprehensive project outline and proposal with key success indicators and measurable objectives • Request NGOs to review educational offerings to include local case studies (For ESDF newsletter and one-stop hub) <p><u>2.2.B</u></p> <ul style="list-style-type: none"> • Source funding for one-stop-hub development to include staffing, designing, hosting • Recruit a suitably qualified and experienced staff member for project management • Compile resource database of NGO educational opportunities.

¹⁶ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

¹⁷ Use of copyable printable worksheets etc. should be discouraged

¹⁸ All activities should be grounded in best practice as evidenced in research

	Identify and promote EfS good practice indicators using local case studies	<ul style="list-style-type: none"> review current provision offered at NIEL and NGOs establish key contacts and process for development Appoint designers establish hub <p><u>2.3.C</u></p> <ul style="list-style-type: none"> Promote hub and encourage NGO/educational institutions to access and submit information on events and offerings. Monitor and evaluate usage Review and update to ensure current with events <p><u>2.3.D</u></p> <ul style="list-style-type: none"> Gather case studies and content for ESDF newsletter Ensure regular communications from ESDF is shared through appropriate means (mailing list, website, etc.)
2.2 NGO work experience placements	Coordination of work experience placements for Key Stage 4 and Tertiary students	<p><u>2.2.A</u></p> <ul style="list-style-type: none"> Use hub to advertise work experience placements Request NGOs to submit lists of research ideas to share with tertiary level students for research and project ideas (hub)
2.3 Contribute to and complement existing and established frameworks and partnerships	Work with Forest Schools, RSPB, the Forestry Service, Woodlands Trust, Wildlife & Wetlands Trust, Fairtrade, UNESCO ASPNET, Healthy Eating, Connecting Classrooms through Global Learning, Eco Schools, in particular through the development of resources and support topics where uptake is lower, especially with regard to global dimensions	<p><u>2.3.A</u></p> <ul style="list-style-type: none"> Identify key potential partners Develop partnerships Connect existing provisions and resources to education initiatives <p><u>2.3.B</u></p>

	Identify other school initiatives where EfS support could assist with achievement and development towards a goal	<ul style="list-style-type: none"> Identify opportunities for the development of resources to complement existing materials Develop materials to meet any identified gaps Align materials with curriculum
2.4 Targeting of businesses and foundations to encourage funding EfS initiatives	Working in partnership, complimentary NGOs should target businesses ¹⁹ and foundations to fund their educational work.	<p><u>2.4.A</u></p> <ul style="list-style-type: none"> Agree ethical parameters to engage with businesses <p><u>2.4.B</u></p> <ul style="list-style-type: none"> Make connection with Business in the Community for initial discussions Once interested businesses are identified and engaged, explore opportunities for collaboration <p><u>2.4.C</u></p> <ul style="list-style-type: none"> Identify potential for establishment of joint forum for interested organisations

¹⁹ As a part of their commitment to Corporate Social Responsibility (CSR)

3 NGO EDUCATIONAL RESOURCES AND ACTIVITIES OFFERED THROUGH OUTDOOR LEARNING AND SITE VISITS SHOULD:

Recommendation	To Achieve this	Specific Actions & Indicators
3.1 EfS Engagement	<p>Through:</p> <p>Raise awareness of how EfS offerings relate to the curriculum</p> <p>Provision of workshop(s) for NGOs aimed at improving engagement skills</p> <p>Communications materials regularly circulated highlighting good practice and case studies</p> <p>monthly newsletter</p> <p>event reports</p> <p>This local engagement could provide valuable real-world opportunities for getting involved and taking action for change</p>	<p>3.1.A</p> <ul style="list-style-type: none"> These workshops, newsletters, event reports will include opportunities to link the Northern Ireland curriculum to: <ul style="list-style-type: none"> appreciate and connect with nature, promoting a sense of awe and wonder in the natural world show the value of nature for its intrinsic worth and its uniqueness in our known universe expand on the most common EfS engagements (recycling and biodiversity) by introducing other areas and actions that support sustainability highlight the benefits of connecting with nature and its contribution to wellbeing through experience Widen the reach of EfS beyond its traditional homes in World Around Us, Science and Geography <p>3.1.B</p> <ul style="list-style-type: none"> Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement.
	<p>Include knowledge and understanding of:</p>	<p>3.2.A</p>

<p>Increase EfS Knowledge & Understanding</p>	<p>Opportunities to mitigate the climate and ecological crisis</p> <p>Sustainability, the environment and ecology</p> <p>Local and Global Issues</p> <p>United Nations Sustainable Development Goals</p>	<ul style="list-style-type: none"> 💧 Link ESDF with NIEL policy team/hub to highlight up-to-date thinking 💧 Provide workshop(s) for NGOs aimed at increasing EfS knowledge 💧 Regularly circulate communications materials highlighting good practice and case studies <p><u>3.2.B</u></p> <ul style="list-style-type: none"> 💧 Publish and disseminate monthly newsletter 💧 Publish and disseminate event reports highlighting EfS themes and organisations <p><u>3.2.C</u></p> <ul style="list-style-type: none"> 💧 Use the United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas 💧 Include local and global case studies and examples of sustainable practice as an individual, group, community and nation 💧 Connect personal wellbeing to planetary wellbeing 💧 Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems. 💧 Generate individual/group ideas and actions to meet local, national and planetary challenges 💧 Resources should include: <ul style="list-style-type: none"> ○ Rationale
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3-3 Framing		<ul style="list-style-type: none"> ○ Knowledge and understanding of the issues explored. ○ Any opportunities for outdoor learning or field trips ○ Children and young people's voice/ participation ○ Ideas for taking action whether individually, as a group, school, local or wider community ○ Case studies of good practice ○ Progression on a topic through the educational experience
	<p>Teach and model:</p> <p>Viewing the world through more than just an anthropocentric lens</p> <p>Critical literacy used to engage and explore environmental issues from multiple perspectives</p> <p>Using social, economic, and political lenses to environmental work, stressing the interconnected nature of our planet</p> <p>Frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety</p>	<p><u>3.3.A</u></p> <ul style="list-style-type: none"> ◆ Provide workshop(s) for NGOs aimed at encouraging broader perspectives on EfS which encourage critical literacy and diverse perspectives. <p><u>3.3.B</u></p> <ul style="list-style-type: none"> ◆ Regularly circulate communications materials highlighting good practice and case studies using social, economic, and political lenses <p><u>3.3.C</u></p> <ul style="list-style-type: none"> ◆ Publish monthly newsletter which includes a section on climate and ecological challenges offering ideas and solutions for mitigation

3-4

Curriculum & Curriculum Understanding

Become familiar with the NI curriculum and explore how work could be made more widely relevant across the curriculum. For example, to include:

Literature & poetry; Art & music; Maths; History; ICT; PDMU; Learning for Life and Work (citizenship and employability)

Link new and existing educational material to the provision in the NI curriculum, highlighting relevant: key stages; areas of learning; cross curricular skills; thinking skills and personal capabilities; and attitudes and dispositions connected learning opportunities

Any **new material development** should be tied into the NI curriculum requirements

Develop resources and activities for KS1, 3 and 4. (KS2 is well catered for!)

Seek advice from the ESDF for guidance on how to adapt or connect their materials to the curriculum

Creation of resources or adaptation of resources to suit different Key Stages and linked to topic work in Primary or different subjects at post primary and tertiary levels

Quality and up to date resources should be shared through the CCEA website for promotion to educators

Actively monitor current trends in education such as drives for: numeracy and literacy; futures thinking, STEM ; resilience; mental health and wellbeing

3.4.A

- Review existing education contacts and update database as necessary (ongoing)
- Identify new key contacts to include in database (other relevant stakeholders)

3.4.B

- Target key stakeholders – meet and collaborate to share ideas and agree on potential partnership working

3.4.C

- Develop workshop materials
- Offer joint workshops to network educators and NGOs whilst exploring EfS opportunities in teaching and learning

3.4.D

- Provide advice and guidance to ESDF member NGOs on the development of learning materials which complement the curriculum requirements
- Prioritise need and create relevant resources
- Share new materials with CCEA

3-5

Expanded EfS Opportunities for partnership and Engagement

Consideration should be given to EfS for children and young people with additional needs.

NGOs could seek advice from special educational needs providers as to how to accommodate learning needs to ensure children and young people have full access to EfS.

Employability opportunities for young people with additional needs could also be explored.

NGOs could collaborate to support the development of quality material for schools, coming together to raise awareness and encourage action in the most pressing local and global issues

NGOs/NGO partnerships should actively promote whole school approaches to EfS

3.5.A

- ◆ Identify key contacts
- ◆ Set up meeting opportunities
- ◆ consider opportunity for workshop
- ◆ Include new contacts in regular communications (newsletters, updates, events)

3.5.B

- ◆ Provide advice on development of learning materials
- ◆ Prioritise need and create relevant resources

4 COOPERATION TO DELIVER ON WIDER EDUCATION INITIATIVES

Recommendation	To Achieve this	Specific Actions & Indicators
4.1 Funding & Support	<p>ESDF could support NGOs to become more familiar with funding strands available to schools through wider education initiatives such as those from the EA, e.g., 'Shared Education', 'Health Well Programme'.</p> <p>NGOs could tailor EfS offerings to coincide with these agendas, for example by offering advice and support on increasing biodiversity in school grounds, providing 'wellbeing in nature' courses or shared EfS opportunities for schools such as tree planting, pond digging, travel to school schemes, 'green corridor' or 'green spot' development for schools.</p>	<p>4.1.A</p> <ul style="list-style-type: none"> Review potential funding support mechanisms available through curriculum initiatives, educational initiatives and any other relevant source Use NIEL funding database to identify other opportunities <p>4.1.B</p> <ul style="list-style-type: none"> Review potential funding annually and inform schools of potential opportunities through NGO training and workshops (TPL and direct student engagement)
4.2 Collaboration & Partnership Influencing²⁰	<p>Opportunities for partnership may be beneficial in:</p> <p>Seeking support and funding</p> <p>Building momentum through the presentation of a united front calling for more focus on EfS and change</p> <p>Providing opportunities to present connected learning opportunities</p>	<p>4.2.A</p> <ul style="list-style-type: none"> Establish simple 12-month advocacy plan with prioritised audiences <p>4.2.B</p> <ul style="list-style-type: none"> Aim to address relevant Stormont Cross Party Groups, Committees (Committee for Agriculture,

²⁰ When advocating for change in policy and practice, partnership working should be the norm.

	<p>Influencing the curriculum to include stronger reference to sustainability and EfS skills like critical literacy and citizenship</p> <p>Benefits of collaboration and partnerships can:</p> <p>Offer the opportunity for a more amplified voice for public awareness and engagement campaigns (and should become the norm in the sector)</p> <p>Offer the chance to conduct joint research related to sustainability and environmental issues.</p> <p>Joint applications for research funding</p> <p>Completed research should be widely shared and could be included in a section on the ESDF site.</p> <p>Together call for increased focus on EfS throughout all levels of education ensuring all learners' entitlement to learning for sustainability.</p>	<p>Environment and Rural Affairs, Committee for Education, etc) quarterly</p> <p>4.2.C</p> <ul style="list-style-type: none"> Review opportunities for joint research with NGOs/universities
<p>4.3</p> <p>Research</p>	<p>Ongoing research of practice in other parts of the world especially grass roots initiatives that have inspired national change.</p>	<p>4.3.A</p> <ul style="list-style-type: none"> Ongoing review of newly published research through quarterly scheduled meetings Sharing of EfS relevant research as identified during quarterly meetings through hub, events and newsletters
<p>4.4</p> <p>ESDF & NIEL Monitoring</p>	<p><u>ESDF</u></p> <p>ESDF could provide a learning hub with NGOs providing twilight and e-learning courses</p> <p>ESDF should monitor and keep pace with EfS practice internationally, learning from best practice to share within Northern Ireland</p>	<p>4.4.A</p> <ul style="list-style-type: none"> Communicate presence and scope of the online hub to educational institutions, members and other relevant stakeholders <p>4.4.B</p>

	<p>ESDF could run competitions, conferences and awards could be used as an incentive for schools to get involved in EfS, as an encouragement for those who already are involved and as an acknowledgement of achievements.</p> <p>Exploit current opportunities in the political arena, to activate support for climate justice such as:</p> <p>Net Zero; Green New Deal; NI Climate Bill</p> <p>Covid 19 pandemic; the drive for circular economies; systems reset; COP26</p> <p>Consider hosting online info sessions for local action groups to provide teachers with live case studies e.g., Save Our Sperrins, Zero Waste and Stop the Incinerator</p> <p>Promote young people's participation by:</p> <p>showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes.</p> <p>Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other</p> <p>Linking to children and young people in other parts of the UK, Ireland and the wider world</p> <p><u>NIEL</u></p> <p>The NIEL coalition can encourage its membership to call for cooperation towards sustainability recognising</p>	<ul style="list-style-type: none"> Establish annual competition for schools targeting different aspects of EfS Develop links with current programmes such as the Climate Coalition, Green Growth and create opportunities for discussion and info sharing Create a youth forum to encourage EfS engagement, amplify youth voices and action NIEL to highlight developments and opportunities for EFS through special events/special edition newsletters Establish ESDF social media presence <p><u>4.4.C</u></p> <ul style="list-style-type: none"> Identify upcoming key environmental policy developments and events, such as COP 26 and the proposed Northern Ireland Environment Strategy to quality EfS is embedded
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	<p>that behavioural change requires individual actions to be backed up by policy.</p> <p>Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.</p> <p>Develop a connected learning idea for KS3 focusing on EfS and revise and update the existing 'Dodging Doomsday' resource and consider an alternative title.</p> <p><u>ESDF / NIEL</u></p> <p>Raise awareness of EfS activities and achievements using traditional and social media avenues such as local news and TV.</p>	
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5 OPPORTUNITIES FOR NGO PARTNERSHIP AND COLLABORATIVE WORKING:

Recommendation	To Achieve this	Specific Actions & Indicators
5.1 Collaborations & Partnerships	<p>Collaboration with human rights-based organisations and with Development Education organisations with experience delivering other action-based outcomes such as:</p> <p>members of the Coalition of Aid and Development Agencies (CADA) ; The Centre for Global Education; Trócaire</p> <p>Christian Aid</p> <p>NGOs should consider how their work provides opportunities for young peoples' engagement and interest in volunteering, entrepreneurship and those completing young leaders awards and initiatives such as Duke of Edinburgh and President's Award.</p>	<p><u>5.1.A</u></p> <ul style="list-style-type: none"> Identify potential opportunities for collaboration with NGOs from non-environmental sector Contact best-fit NGOs to explore cooperative opportunities
	<p>NGOs could support vocational courses and apprenticeships offered by post primary schools</p>	<p><u>5.1.B</u></p> <ul style="list-style-type: none"> Contact NI Youth forum for discussion around potential partners, programmes and establishing an EfS Youth Forum
	<p>Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.</p>	<p><u>5.1.C</u></p> <ul style="list-style-type: none"> Establish links with national campaign groups; develop opportunities to share info and maximise the hub facility

6 INITIAL TEACHER EDUCATION AND TEACHER PROFESSIONAL LEARNING:

EfS, whether at initial teacher education or through continuing professional development, provides an ideal opportunity to reflect on the overall purpose of education in our 'rapidly changing world'.

Recommendation	To Achieve this	Specific Actions & Indicators
6.1 Train & Skill Educators in Northern Ireland	<p>NGOs should:</p> <p>Offer teachers time outside of the classroom to reflect on the state of the world and increase their own understanding of the threat of the climate crisis.</p> <p>Offer accredited courses to teachers to develop their understanding, passion, practice and commitment to EfS. These could include shorter E Learning courses through to Master Levels.</p> <p>Support teachers to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.</p> <p>Share their expertise and passion to develop teacher confidence and commitment to education for sustainability, recognising that personal passion is a major driver for classroom practice.</p> <p>Provide opportunities for teachers to spend time in nature and connect with their local environment would be invaluable.</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for</p>	<p>6.1.A</p> <ul style="list-style-type: none"> Update existing database of educators Build on current links with educators through actions listed in this plan Develop accredited courses Advocate for increased time/resources for educators to engage with nature and opportunities for development of skills (workshops for school principals, meetings with the EA, ETI, etc) <p>6.1.B</p> <ul style="list-style-type: none"> Offer ESDF members workshops and support with regard to EfS Offer ESDF members specifically developed materials to address less covered and new topics – such as the climate crisis, the biodiversity crisis, positive local action

example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.

Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).

Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements.

Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term).

Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.

Teachers should be supported to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.

ESDF

Members could support teacher-led peer professional learning opportunities relating to EfS which should be

- ◆ Provide online resources aimed at assisting teachers to expand their knowledge

- ◆ Develop section of hub for teachers to share knowledge and best practice

6.1.C

- ◆ Provide a workshop schedule for teachers

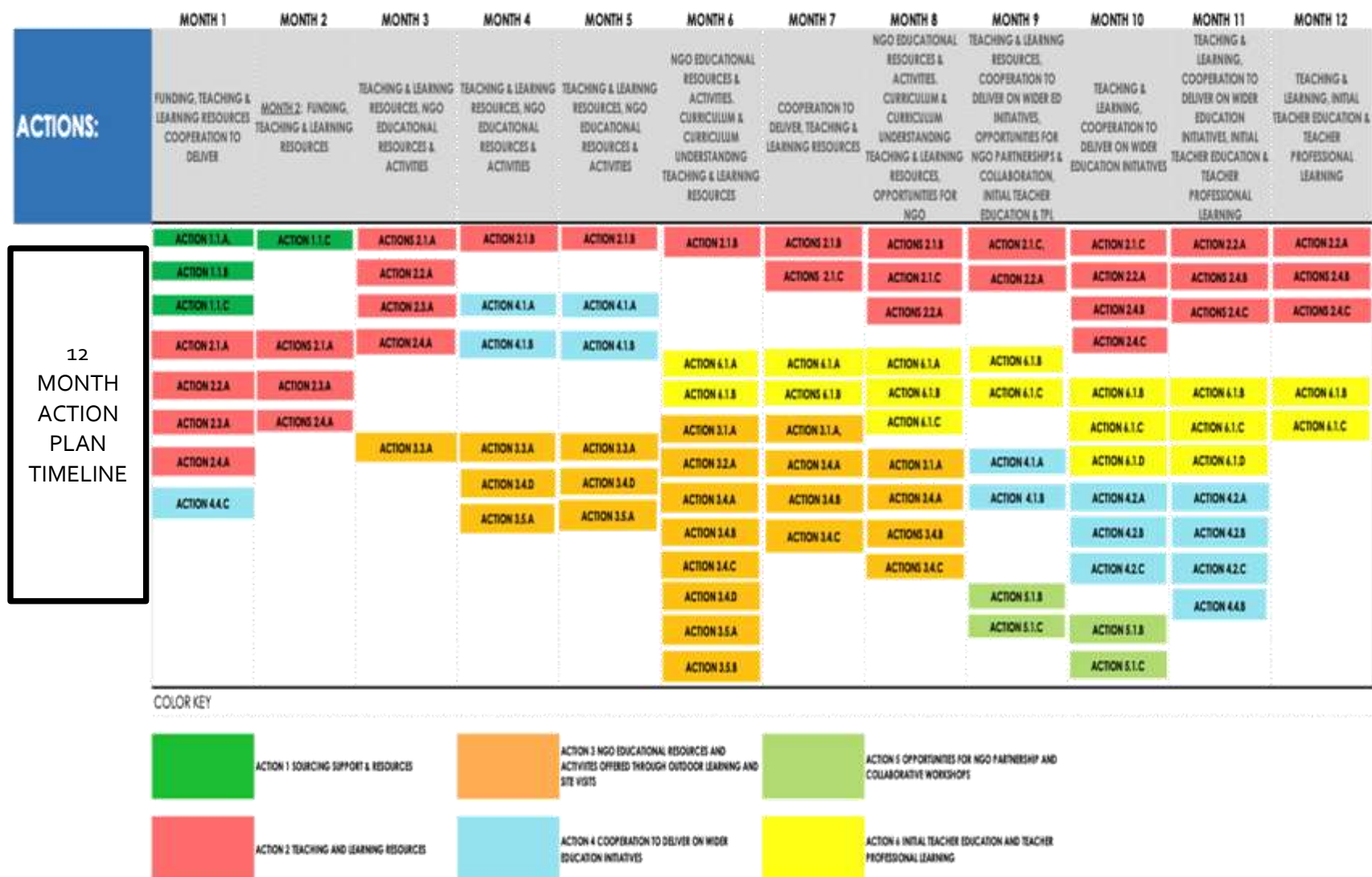
- ◆ Deliver annual 'teacher training' events at the relevant colleges across NI

6.1.D

- ◆ Develop placements by supporting NGOs to develop placements for educators within their work

	aligned with the vision and characteristics as outlined in the 'Learning Leaders, A Strategy for Teacher Professional Learning 2020	
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TWELVE MONTH ACTION PLAN TIMELINE



ACTIVITIES THAT SHOULD BE PRESENT THROUGHOUT EFS ACTION PLAN IMPLEMENTATION

ONE STOP HUB FOR NORTHERN IRELAND EDUCATORS WHICH IS EASILY ACCESSIBLE AND NAVIGABLE, DOWNLOADABLE AND KEPT UP TO DATE...

- 2.1.D Gather case studies and content for ESDF newsletter. Ensure regular communications from ESDF is shared through appropriate means (mailing lists, websites, social media)

NGO EDUCATIONAL RESOURCES AND ACTIVITIES OFFERED THROUGH OUTDOOR LEARNING AND SITE VISITS

EFS ENGAGEMENT

- 3.1.A Workshops, events, event reports will include opportunities to link the Northern Ireland curriculum
- 3.1.B Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement.

INCREASE EFS KNOWLEDGE & UNDERSTANDING:

- 3.2.A Link ESDF with NIEL policy team/hub...Regularly circulate communications materials highlighting good practice and case studies
- 3.2.B Publish and disseminate monthly newsletter. Publish and disseminate event reports highlighting Efs themes and organisations
- 3.2.C Use the UN Sustainable Development Goals as a map for connecting Efs education in all curricular areas. Include local and global case studies and examples of sustainable practice...

FRAMING

- 3.3.B Regularly circulate communications materials highlighting good practice and case studies using social, economic and political lenses
- 3.3.C Publish monthly newsletter which includes a section on climate and ecological challenges offering ideas and solutions for mitigation
- 3.5.B Provide advice on development of learning materials. Prioritise need and create relevant resources

COOPERATION TO DELIVER ON WIDER EDUCATION INITIATIVES

FUNDING & SUPPORT

- 4.1.B Review potential funding annually and inform schools of potential opportunities through NGO training and workshops (TPL and direct student engagement)

RESEARCH

- 4.3.A Ongoing review of newly published research through quarterly scheduled meetings. Sharing of Efs relevant research as identified during quarterly meetings through hub, events and newsletters

ESDF & NIEL MONITORING

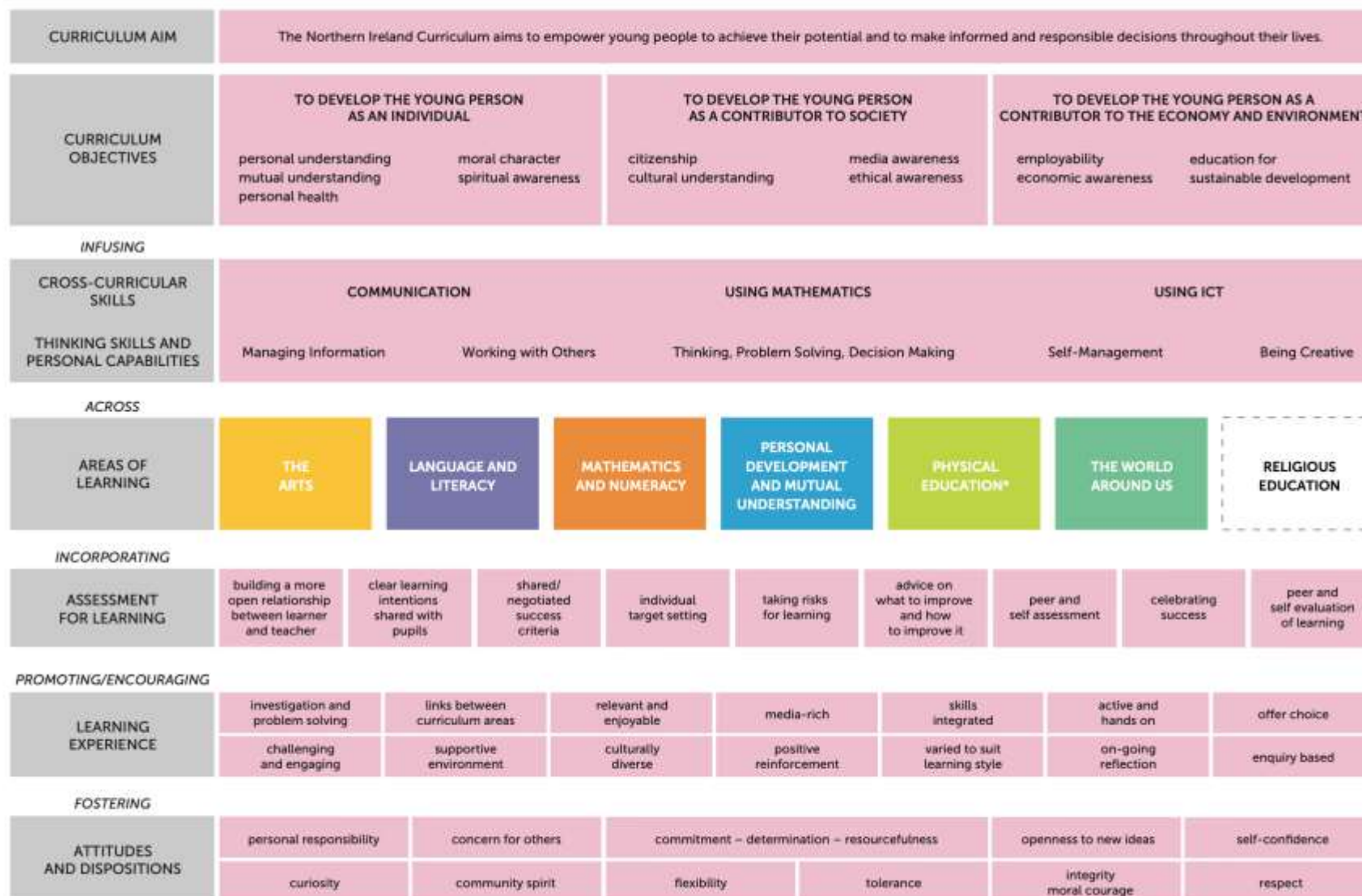
- 4.4.B Establish annual competitions for schools. Develop links with current programmes. Create or contribute to existing youth forums to encourage Efs engagement. NIEL to highlight developments and opportunities for Efs through special events/special edition newsletters
- 4.4.C Identify upcoming key environmental policy developments and events, such as COP 26 and the proposed Northern Ireland Environment Strategy to ensure quality Efs is embedded

APPENDIX

CCEA “Big Pictures” of the Curriculum KS1-4

**Existing Curriculum and Proposed Curriculum Alignment with Policy,
Legislation & Strategies**

The "Big Picture" of the Curriculum at Primary



*Physical Development and Movement at Foundation Stage

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The "Big Picture" of the Curriculum at Key Stage 3

CURRICULUM AIM	The Northern Ireland Curriculum aims to empower young people to achieve their potential and to make informed and responsible decisions throughout their lives.														
CURRICULUM OBJECTIVES	To develop the young person as an individual			To develop the young person as a contributor to society			To develop the young person as a contributor to the economy and environment								
FOR															
LEARNING FOR LIFE & WORK	PERSONAL DEVELOPMENT		HOME ECONOMICS		LOCAL AND GLOBAL CITIZENSHIP			EMPLOYABILITY							
THROUGH															
KEY ELEMENTS	personal understanding mutual understanding personal health		moral character spiritual awareness		citizenship cultural understanding		media awareness ethical awareness		employability economic awareness education for sustainable development						
INFUSING															
CROSS-CURRICULAR SKILLS	COMMUNICATION				USING MATHEMATICS				USING ICT						
THINKING SKILLS AND PERSONAL CAPABILITIES	Managing Information		Working with Others		Thinking, Problem Solving, Decision Making			Self-Management		Being Creative					
ACROSS															
AREAS OF LEARNING	THE ARTS	ENGLISH (IRISH in Irish Medium Schools) with Media Education		ENVIRONMENT AND SOCIETY	MATHEMATICS with Financial Capability	MODERN LANGUAGES	PHYSICAL EDUCATION	SCIENCE AND TECHNOLOGY	RELIGIOUS EDUCATION						
PROMOTING / ENCOURAGING															
LEARNING EXPERIENCE	investigation and problem solving		links between curriculum areas		relevant and enjoyable		media-rich		skills integrated		active and hands on	offer choice			
	challenging and engaging		supportive environment		culturally diverse		positive reinforcement		varied to suit learning style		on-going reflection	enquiry based			
ASSESSMENT FOR LEARNING	building a more open relationship between learner and teacher		clear learning intentions shared with pupils		shared/ negotiated success criteria		individual target setting		taking risks for learning		advice on what to improve and how to improve it		peer and self assessment	celebrating success	peer and self evaluation of learning
ATTITUDES AND DISPOSITIONS	personal responsibility		concern for others		commitment – determination – resourcefulness				openness to new ideas			self-belief – optimism pragmatism			
	curiosity		community spirit		flexibility		tolerance			integrity moral courage		respect			

The "Big Picture" of the Curriculum at Key Stage 4

CURRICULUM AIM	The Northern Ireland Curriculum aims to empower young people to achieve their potential and to make informed and responsible decisions throughout their lives.									
CURRICULUM OBJECTIVES	To develop the young person as an individual			To develop the young person as a contributor to society			To develop the young person as a contributor to the economy and environment			
INFUSING										
CROSS-CURRICULAR SKILLS	COMMUNICATION			USING MATHEMATICS				USING ICT		
THINKING SKILLS AND PERSONAL CAPABILITIES	Self-Management			Working with Others				Problem-Solving		
ACROSS										
AREAS OF LEARNING	THE ARTS	LANGUAGE AND LITERACY	ENVIRONMENT AND SOCIETY	STATUTORY LEARNING FOR LIFE AND WORK	MATHEMATICS with Financial Capability	MODERN LANGUAGES	STATUTORY PHYSICAL EDUCATION	SCIENCE AND TECHNOLOGY	STATUTORY RELIGIOUS EDUCATION	
TO MEET										
THE STATUTORY REQUIREMENTS THROUGH THE KEY STAGE 4 ENTITLEMENT FRAMEWORK	All post-primary schools must provide learners with access to at least 21 courses at Key Stage 4.*									
	At least 1/3 should be general courses.			At least 1/3 should be applied courses.			1/3 are optional.			
TO PROMOTE										
THE RELEVANCE OF LEARNING TO EVERYDAY LIFE AND WORK	Personal Development	Healthy Living	Citizenship	Community-Based Learning	Employability	Entrepreneurship				
	Career Education	Career Planning	STEM	Work-Related Learning	Education for Sustainable Development	Financial Capability				
INDEPENDENT AND LIFELONG LEARNING	Supportive Learning Environment	Learner-Centred Pedagogy	Active Enquiry-Based Learning	Critical Thinking Skills	Metacognition (Thinking about Thinking)	Assessment For Learning				
ATTITUDES AND DISPOSITIONS	Personal Responsibility	Concern For Others	Commitment	Determination	Resourcefulness	Openness To New Ideas	Self-Belief	Respect		
	Optimism	Pragmatism	Curiosity	Community Spirit	Flexibility	Tolerance	Integrity	Moral Courage		

* See the DE NI website at www.education-ni.gov.uk for a list of approved courses at Key Stage 4.

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NI SKILLS BAROMETER 2019 & SKILLS IN DEMAND – DEPARTMENT OF THE ECONOMY AND ULSTER UNIVERSITY

This report provides a detailed understanding of the skill requirements for the Northern Ireland economy up to 2028 with the aim of ensuring that any skills gaps are identified and addressed. The research analyses where the skills gaps are currently, where they are emerging and where they are likely to emerge over the longer term. The Skills Barometer will continue to be relevant in shaping policy across all areas of skills provision as it will allow Government to allocate its funding in a more efficient manner to meet business needs and provide the evidence for more flexible responses to future skills needs.

Relevant Intentions	NIEL Strategy Recommendations
NI Skills Barometer - Soft skills & Skills in Demand	
<p>Employers will need individuals with a combination of both soft skills and hard skills. These two skills complement one another in the workplace.</p> <p>Whilst hard skills are most typically gained through the education system it is important that students are also able to acquire soft skills throughout their educational journey.</p> <p>Therefore, education institutions should continue to integrate the development of soft skills to the curriculum. (p101)</p> <p><u>Given employers report soft skills as lacking among education leavers</u> there is an onus on employers to provide opportunities for young people to gain these skill requirements within their organisations through work experience opportunities. (p101)</p> <p>Wider Employability skills are essential to securing employment:</p> <p>Problem Solving</p> <p>Leadership</p> <p>Adaptability</p>	<p>EfS engagement through:</p> <p>Opportunities to appreciate and connect with nature, promoting a sense of awe and wonder in the natural world</p> <p>Showing the value of nature for its intrinsic worth and its uniqueness in our known universe</p> <p>Expanding on the most common EfS engagements (recycling and biodiversity) by introducing other areas and actions that support sustainability</p> <p>Highlight the benefits of connecting with nature and its contribution to wellbeing through experience</p> <p>Connect personal wellbeing to planetary wellbeing</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems</p> <p>Encourage self/group generated ideas to meet local, national and planetary challenges</p> <p>Teach and model:</p> <p>Viewing the world through more than just an anthropocentric lens</p> <p>Critical literacy used to engage and explore environmental issues from multiple perspectives</p> <p>Using social, economic, and political lenses to environmental work, stressing the interconnected nature of our planet</p> <p>Frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety</p>

OECD SKILLS STUDIES: OECD SKILLS STRATEGY NORTHERN IRELAND (UNITED KINGDOM) ASSESSMENT AND
RECOMMENDATIONS - 2020

As part of the process to develop a new Skills Strategy for Northern Ireland the Department for the Economy engaged with the Organisation for Economic Co-operation and Development (OECD) to assess the key skills issues impacting the local economy and to develop a range of recommendations.

Relevant Intentions	NIEL Recommendations
<p>Introduction</p> <p>Developing relevant skills and using them effectively is crucial for Northern Ireland's ability to thrive in an increasingly interconnected and rapidly changing world.</p>	<p>Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.</p> <p>Working in partnership, complimentary NGOs should target businesses²¹ and foundations to fund their educational work.</p>
<p>Skills matter for NI (p16-18)</p> <p><u>Megatrends</u> such as digitalization , demographic change, <u>climate change</u> and globalisation will undoubtedly affect Northern Ireland, <u>transforming jobs and the way people consume, interact and spend their time.</u></p> <p>As a result of the impact of the COVID-19 pandemic especially, <u>people will increasingly need to upgrade their skills to perform new tasks in their existing jobs, or to acquire new skills for new jobs, as well as to adapt to new modes of behaviour, consumption and work.</u></p>	<p>EfS knowledge and understanding should include</p> <ul style="list-style-type: none"> Opportunities to mitigate the climate and ecological crisis Sustainability, the environment and ecology The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas Include case examples of sustainable practice as an individual, group, community and nation Connect personal wellbeing to planetary wellbeing Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems. Encourage self/group generated ideas to meet local, national and planetary challenges <p>Teach and model:</p> <ul style="list-style-type: none"> Viewing the world through more than just an anthropocentric lens Critical literacy used to engage and explore environmental issues from multiple perspectives Using social, economic, and political lenses to environmental work, stressing the interconnected nature of our planet <p>NGOs should consider how their work provides opportunities for young peoples' engagement and interest in volunteering, entrepreneurship and those completing young leaders awards and initiatives such as Duke of Edinburgh and President's Award.</p>

²¹ As a part of their commitment to Corporate Social Responsibility (CSR)

A wide range of skills is needed for success in work and life (p18):

Transversal Cognitive and met-cognitive skills [are needed]: including critical thinking, complex problem solving; creative thinking; learning to learn and self-regulation

Social and emotional skills: including conscientiousness, responsibility, empathy, self-efficacy and collaboration

NGOs could support vocational courses and apprenticeships offered by post primary schools

ESDF

ESDF could provide a learning hub with NGOs providing twilight and e-learning courses

NIEL

The NIEL coalition can encourage its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy.

Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.

Develop a connected learning idea for KS3 focusing on EfS and revise and update the existing 'Dodging Doomsday' resource and consider an alternative title.

NGOs could offer accredited courses to teachers to develop their understanding, passion, practice and commitment to EfS. These could include shorter E Learning courses through to Master Levels. Support teachers to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.

Share their expertise and passion to develop teacher confidence and commitment to education for sustainability, recognising that personal passion is a major driver for classroom practice.

Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).

Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements.

Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term).

Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.

NICCY: ADVICE ON THE ENVIRONMENTAL STRATEGY FOR NORTHERN IRELAND: PUBLIC DISCUSSION DOCUMENT
(2020)

The Commissioner for Children and Young People (NICCY) was created in accordance with 'The Commissioner for Children and Young People (Northern Ireland) Order' (2003) to safeguard and promote the rights and best interests of children and young people in NI. Under Articles 7(2)(3) of this legislation, NICCY has a mandate to keep under review the adequacy and effectiveness of law, practice and services relating to the rights and best interests of children and young people by relevant authorities. The remit of the Office is children and young people up to 18 years, or 21 years of age if the young person is disabled or in the care of social services. In determining how to carry out her functions, the Commissioner's paramount consideration is the rights of the child, and NICCY is required to base all its work on the United Nations Convention on the Rights of the Child (UNCRC).

Relevant Intentions	NIEL Strategy Recommendations
<p>States have a duty to promote the development of respect for the natural environment as enshrined in Art.29(1)(e) of the Committee on the Rights of the Child. To this end, States should elaborate specific policies that include the views and proposals of children with a view to promoting their rights and educating young citizens. Teachers' training programs should adequately reflect the implications of rights-based environmental education.</p> <p>(Appendix 1: Recommendations for states contained in CRC (2016) Report of the 2016 Day of General Discussion: Children's Rights and the Environment (p23)</p> <p>....Curriculums should be frequently updated to be responsive to rapidly changing environments. States are encouraged to promote direct involvement of children in environmental protection as a crucial component of their learning process and an exercise in social practices that constitute civic participation. (p23)...States should specify how these measures raise children's awareness of their rights and responsibilities with regard to the environment, instil an environmental stewardship ethic, impart the skills children need to become environmental agents and promote equal opportunities for all students to become actively involved. States should consider establishing specific child-friendly platforms for environmental participation and peer sharing and learning. (p23)</p>	<p>Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements</p> <p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term)</p> <p>ESDF Members could support teacher-led peer professional learning opportunities relating to EfS</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p> <p>Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).</p> <p>Opportunities to appreciate and connect with nature, promoting a sense of awe and wonder in the natural world</p> <p>Showing the value of nature for its intrinsic worth and its uniqueness in our known universe</p> <p>Highlight the benefits of connecting with nature and its contribution to wellbeing through experience</p> <p>Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement</p> <p>Include knowledge and understanding of: Opportunities to mitigate the climate and ecological crisis & Sustainability, the environment and ecology</p> <p>Connect personal wellbeing to planetary wellbeing</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems</p>

	<p>Encourage self/group generated ideas to meet local, national and planetary challenges</p> <p>Teach and model: Viewing the world through more than just an anthropocentric lens & frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety</p> <p>Support teachers to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.</p> <p>Link new and existing educational material to the provision in the NI curriculum, highlighting relevant: key stages: areas of learning. cross curricular skills thinking skills & personal capabilities attitudes and dispositions connected learning</p>
<p>[Children surveyed by NICCY] argued that if children were taught at an early age about protecting the environment, this would lead to a culture change within society.</p> <p>Environmental policies should be explained to younger children so it becomes a norm to protect the environment. (p8)</p> <p>The [NICCY Youth Panel] recognised that there is a role for schools in educating children and young people about protecting the environment, but it was also clear that there is a great deal of knowledge among young people, in both primary and secondary settings. As the [NICCY] have seen from [their] engagement with children and young people, many have a great deal of interest in exploring options for protecting the environment and halting climate change. (p8)</p> <p>"Get schools to promote saving the environment" ([NICCY Youth Panel] 2019) (pg-10)</p> <p>There should be an on-going process of engaging with children and young people on environmental matters, due to their particular interest, their vulnerability to</p>	<p>Include knowledge and understanding of:</p> <ul style="list-style-type: none"> Opportunities to mitigate the climate and ecological crisis Sustainability, the environment and ecology The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas Include case examples of sustainable practice as an individual, group, community and nation <p>Consider hosting online info sessions for local action groups to provide teachers with live case studies e.g., Save Our Sperrins, Zero Waste and Stop the Incinerator</p> <p>Promote young people's participation by:</p> <ul style="list-style-type: none"> showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes. Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other Linking to children and young people in other parts of the UK, Ireland and the wider world <p>Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement.</p> <p>This local engagement could provide valuable real-world opportunities for getting involved and taking action for change</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.</p>

environmental harm, and the fact that they will have to live with the consequences of government actions for the longest. (p17)

Ensuring a connection with the natural world:

States should take steps to ensure through policies, strategies and actions in the area of environmental protection, urban planning, health, education etc. the ability of children to interact with nature as an underlying determinant of their rights to health and development, including the development of respect for the natural environment. (Appendix 1: Recommendations for states contained in CRC (2016) Report of the 2016 Day of General Discussion: Children's Rights and the Environment (p21-22))

Exploit current opportunities in the political arena, to activate support for climate justice such as:

Net Zero Green New Deal NI Climate Bill Covid 19 pandemic

the drive for circular economies systems reset. COP26

Offer the opportunity for a more amplified voice for public awareness and engagement campaigns (and should become the norm in the sector)

Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc

Link new and existing educational material to the provision in the NI curriculum, highlighting relevant:

key stages

areas of learning. cross curricular skills thinking skills & personal capabilities attitudes and dispositions connected learning

Develop resources and activities for KS1, 3 and 4.

ESDF could run competitions, conferences and awards could be used as an incentive for schools to get involved in EfS, as an encouragement for those who already are involved and as an acknowledgement of achievements.

Develop resources and activities for KS1, 3 and 4.

Consideration should be given to EfS for children and young people with additional needs.

NGOs could seek advice from special educational needs providers as to how to accommodate learning needs to ensure children and young people have full access to EfS.

NGOs/NGO partnerships should actively promote whole school approaches to EfS

The Department of Agriculture, Environment & Rural Affairs (DAERA) published a discussion document of a Northern Ireland Environment Strategy, a strategy DEARA believe is required to form the basis for a coherent and effective set of interventions that can deliver real improvements in the quality of the environment and thereby improve the health and well-being of our citizens, create opportunities to develop our economy and play our part in protecting the global environment for many decades to come.

Relevant Intentions	NIEL Recommendations
<p>Many of the things that we do affect the environment in a bad way but there is a lot we can do to make it better. How we engage with nature can protect and improve our water, air, soil, living world and landscape. This is important because these elements support our lives, businesses and jobs, communities, families and our health. (p2)</p> <p>Background</p> <p>We are lucky to have a mostly good environment – it is one of the main reasons people from other places visit, spending money here and telling others about our county – but it can still be made better and should be properly protected so that it be enjoyed for many years. (p2)</p> <p>Strategic Theme:</p> <p><u>Environmental Engagement</u></p> <p>We live, work and play in the environment (we are all part of it too) and when it is clean and healthy it is good for us in lots of ways but when it is not it can be very bad for us. The way we affect the environment can be good or bad too. How we connect, or engage, with the environment affects how well we</p>	<p>NGO EfS engagement through:</p> <ul style="list-style-type: none"> Opportunities to appreciate and connect with nature, promoting a sense of awe and wonder in the natural world Showing the value of nature for its intrinsic worth and its uniqueness in our known universe Expanding on the most common EfS engagements (recycling and biodiversity) by introducing other areas and actions that support sustainability Highlight the benefits of connecting with nature and its contribution to wellbeing through experience <p>Connect personal wellbeing to planetary wellbeing</p> <p>EfS knowledge and understanding of:</p> <ul style="list-style-type: none"> Opportunities to mitigate the climate and ecological crisis Sustainability, the environment and ecology The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas Include case examples of sustainable practice as an individual, group, community and nation Connect personal wellbeing to planetary wellbeing Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems. Encourage self/group generated ideas to meet local, national and planetary challenges <p>Teach and model:</p>

<p>understand it and look after it. This theme also encompasses issues such as:</p> <p>Education General Public Awareness</p>	<p>Viewing the world through more than just an anthropocentric lens</p> <p>Critical literacy used to engage and explore environmental issues from multiple perspectives</p> <p>Using social, economic, and political lenses to environmental work, stressing the interconnected nature of our planet</p> <p>Frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety</p> <p>Promote young people’s participation by:</p> <p>showcasing achievements with a ‘Power to the Pupil’ type event providing ‘peer learning’, sharing of best practice and learning from mistakes.</p> <p>Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other</p> <p>Linking to children and young people in other parts of the UK, Ireland and the wider world</p>
<p>Strategy Scope:</p> <p><u>Climate Change (mitigation and adaptation)</u></p> <p>Mitigation means trying to stop greenhouse gas emissions (like carbon dioxide and methane).</p> <p>Adaptation means trying to deal with how climate change affects us by preventing or reducing the damage it can cause. (p5)</p> <p><u>Resource Efficiency</u></p> <p>This means using the planet’s resources (water, timber, coal, oil etc) in a way that reduces harm to the environment as much as possible. (p5)</p>	<p>EfS knowledge and understanding of:</p> <p>Opportunities to mitigate the climate and ecological crisis</p> <p>Sustainability, the environment and ecology</p> <p>The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas</p> <p>Include case examples of sustainable practice as an individual, group, community and nation</p> <p>Connect personal wellbeing to planetary wellbeing</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.</p> <p>Encourage self/group generated ideas to meet local, national and planetary challenges</p> <p>Frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety</p>

<p><u>Environmental Quality (Air, Water and Neighbourhood)</u></p> <p>Environmental quality is about how the environment affects human beings and other living things – air, water and neighbourhood environmental quality (litter, dog fouling and also buildings). (p6)</p> <p><u>Built Environment</u></p> <p>This is the part of our surroundings built by humans. It includes buildings, but also human made spaces, like parks...(p6)</p>	
<p>Strategic Themes:</p> <p><u>Environmental Engagement</u></p> <p>Many younger people around the world are leading the way in trying to protect the environment. Programmes such as Eco-Schools have helped and all of our primary and secondary schools are part of this scheme. We support these schemes but will also look for other ways to help people learn about the environment. (p7)</p> <p>We need to raise awareness of the environment and try to encourage school's good behaviour and prevent bad behaviour across all age groups. <u>We also need to find out what makes people want to take care of their environment.</u> (p8)</p>	<p>Work with Eco Schools, in particular through the development of resources and support topics where uptake is lower, especially with regard to global dimensions</p> <ul style="list-style-type: none"> • Highlight the benefits of connecting with nature and its contribution to wellbeing through experience • NGOs could collaborate to support the development of quality material for schools, coming together to raise awareness and encourage action in the most pressing local and global issues <p>NGOs/NGO partnerships should actively promote whole school approaches to EfS</p> <p>Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.</p> <p>ESDF could support NGOs to become more familiar with funding strands available to schools through wider education initiatives such as those from the EA, e.g., 'Shared Education', 'Health Well Programme'.</p> <p>NGOs could tailor EfS offerings to coincide with these agendas, for example by offering advice and support on increasing biodiversity in school grounds, providing 'wellbeing in nature' courses or shared EfS opportunities for schools such as tree planting, pond digging, travel to school schemes, 'green corridor' or 'green spot' development for schools.</p>

	<p>NIEL</p> <p>The NIEL coalition can encourage its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy</p> <p>Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above</p> <p>Develop a connected learning idea for KS3 focusing on EfS and revise and update the existing 'Dodging Doomsday' resource and consider an alternative title</p>
<p>Draft Outcomes</p> <p>We achieve a zero waste and well-developed circular economy. We have reduced greenhouse gas emissions and improved climate resilience Biodiversity loss halted, ecosystems in a healthy state, and well managed landscapes. We achieve sustainable consumption and production on land and sea (p13)</p> <p>We have excellent air, water, land and neighbourhood quality (p13)</p>	<p>EfS engagement through:</p> <p>Expanding on the most common EfS engagements (recycling and biodiversity) by introducing other areas and actions that support sustainability</p> <p>Include case examples of sustainable practice as an individual, group, community and nation</p> <p>Connect personal wellbeing to planetary wellbeing</p> <p>Exploit current opportunities in the political arena, to activate support for climate justice such as:</p> <p>Net Zero. Green New Deal NI Climate Bill Covid 19 pandemic</p> <p>the drive for circular economies systems reset COP26</p>

Friends of the Earth: Climate Action Plan for Northern Ireland (2020)

Friends of the Earth's plan proposes how we can recover from multiple crises that are converging – climate breakdown, ecological collapse, a global pandemic and growing inequalities – and we can do this in a way that benefits all the people and communities of Northern Ireland. It unashamedly borrows ideas from other small countries, as well as promoting vibrant grassroots participation in decision-making so that home-grown solutions can emerge.	
Relevant Intentions	NIEL Strategy Teacher Training Recommendations

Five Priorities²² to get Northern Ireland on track to becoming an environmentally responsible, resilient, and fair country:

Empower communities to lead the recovery by using participatory decision-making processes, making sure those most impacted by environmental harm are listened to, and with legal changes so that communities can hold the Northern Ireland government to account. We need a democratic revival.

Achieving the scale of emissions reductions required will require cohesive, joined-up government, and community involvement and buy-in. Therefore, **hearing the voices of communities, particularly those most impacted by climate change now and in the future, is essential.**

Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.

Encourage self/group generated ideas to meet local, national and planetary challenges

NGOs could collaborate to support the development of quality material for schools, coming together to raise awareness and encourage action in the most pressing local and global issues

NGOs/NGO partnerships should actively promote whole school approaches to EfS

Promote young people's participation by:

- showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes.
- Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other
- Linking to children and young people in other parts of the UK, Ireland and the wider world

Exploit current opportunities in the political arena, to activate support for climate justice such as:

Net Zero

Green New Deal

NI Climate Bill

²² 4 are relevant and listed

	<p>Covid 19 pandemic</p> <p>the drive for circular economies</p> <p>systems reset</p> <p>COP26</p>
<p>Follow the lead of New Zealand, and instead of measuring progress and shaping economic policy towards GDP growth, develop and use a Living Standards Framework²³. Gross Domestic Product is a poor measure of progress because it can increase while the environment is degraded and people's wellbeing declines. The economy and fiscal measures should be judged on how well they increase wellbeing.</p>	
<p>As the economy in every part of Northern Ireland has suffered because of the COVID-19 pandemic, the government will be looking at future investments to increase jobs. Such a plan should be in line with climate and nature goals as well as other aspects that would form a Living Standards Framework, such as addressing inequalities.</p> <p>Northern Ireland can create jobs to improve energy efficiency in the housing sector and address fuel poverty. The expansion of renewable energy is already creating direct jobs, supply chain jobs, and local economic benefits, and has seen the development of energy storage technologies.</p>	<p>Online EfS searchable resource²⁴ which:</p> <p>Showcases "green" careers and employment</p> <p>Highlights vocational opportunities and apprenticeships</p> <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability</p>

²³ The New Zealand government has broken with tradition to say that instead of guiding economic policy by GDP growth it will instead use a Living Standards Framework (LSF) made up of 12 domains of wellbeing. The LSF has been developed by the New Zealand Treasury,

²⁴ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

Rapidly helping the green economy grow will help people who have lost their jobs because of COVID-19 to get new jobs. Many of them will be **young people**. **Skills training is essential** for this transition, so **skills programmes must be targeted at businesses of the future, not the past**.

in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.

Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).

Reverse the decline in nature, to include a Just Transition plan for farmers to halve livestock production by 2030, a moratorium on industrial farming, and diversification to make farming nature friendly. This should involve restoring peatland and ensuring family farmers in particular get rewarded for nature-friendly farming and funded to diversify, including into tree planting and timber production. And rejecting intensive livestock production, which too often relies on imported animal feed from areas of rainforest deforestation or harms nature sites through pollution.

Nature isn't a "nice to have". **Healthy ecosystems are essential to human wellbeing**, including through food production, flood alleviation, and freshwater provision. The science on this is clear, including the ground-breaking work of scientists detailed in the global Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services report in 2019²⁷. The COVID-19 pandemic has also enhanced people's appreciation of wildlife, particularly in our towns and cities.

But all too often in Northern Ireland, nature is seen as of secondary importance or worse still as an inconvenient barrier to infrastructure development

Protecting and restoring nature needs to be at the heart of decision-making, including in important economic sectors such as farming.

EfS engagement through:

Opportunities to appreciate and connect with nature, promoting a sense of awe and wonder in the natural world

Showing the value of nature for its intrinsic worth and its uniqueness in our known universe

Expanding on the most common EfS engagements (recycling and biodiversity) by introducing other areas and actions that support sustainability

Highlight the benefits of connecting with nature and its contribution to wellbeing through experience

Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement

This local engagement could provide valuable real-world opportunities for getting involved and taking action for change

Employability opportunities for young people with additional needs could also be explored.

POLICY RECOMMENDATIONS

<p>Communities should be empowered to protect and improve the environment through:</p> <ul style="list-style-type: none"> the use of participatory decision-making processes such as citizens' assemblies; changes to planning law so that community input to decision-making is required and permitted development is restricted to minor works; – and communities having affordable legal recourse to challenge poor decision-making. <p>Aim to recycle 70% of waste by 2030</p>	<p>Promote young people's participation by:</p> <ul style="list-style-type: none"> showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other Linking to children and young people in other parts of the UK, Ireland and the wider world <p>Exploit current opportunities in the political arena, to activate support for climate justice such as: Net Zero; Green New Deal; NI Climate Bill; Covid 19 pandemic; the drive for circular economies; systems reset; COP26</p> <p>Using social, economic, and political lenses to environmental work, stressing the interconnected nature of our planet</p> <p>ESDF resources should highlight vocational opportunities and apprenticeships</p>
<p>Conclusion</p>	
<p>These are undoubtedly difficult times. They are also times of hope and opportunity. We can shape the future we want, collectively – a life-affirming future with a life-sustaining economy, a functioning participative democracy, and a healthy planet. We can build back better. We can create a society and an economy that serves the needs of people and planet, not people and planet serving the needs of the economy. We have to grasp the opportunity.</p>	<p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.</p> <p>Teach and model:</p> <ul style="list-style-type: none"> Viewing the world through more than just an anthropocentric lens

Critical literacy used to engage and explore environmental issues from multiple perspectives

Using social, economic, and political lenses to environmental work, stressing the interconnected nature of our planet

Frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety

LEARNING LEADERS: A STRATEGY FOR TEACHERS PROFESSIONAL LEARNING, DEPARTMENT OF EDUCATION (2015)

The Strategy document represented the starting point of a process of engagement, consensus, and implementation. Next steps included the development of a coherent career-long teacher professional learning framework which support teachers and schools to identify and, where possible, lead their own development.

Relevant Intentions	NIEL Recommendation
<p>Vision: "Every Teacher is a learning leader, accomplished in working collaboratively with all partners in the interests of children and young people." (p4)</p> <p>The pace at which the world is changing challenges children and young people to develop increasingly complex knowledge and skills. Teachers too face a world which can be simultaneously creative, complex and challenging. Nevertheless, it is accepted globally that "the quality of teaching is the most crucial "in-school" factor in raising the level of pupils" (p6)</p> <p>Skills that teachers as researchers require:</p> <p>Visionary, Collaborator, Researcher, Problem Solver, Facilitator, Persuader, Role Model, Learner, Adviser, Leader Risk Taker, Communicator</p>	<p>Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).</p> <p>Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements.</p> <p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term)</p> <p>Online EfS searchable resource²⁵ which:</p> <ul style="list-style-type: none"> ◆ Shares Teacher professional learning opportunities ◆ Provides up-to-date communications in response to current events ◆ Offers curricular materials and lesson plans²⁶ (including bite-sized lessons ideas)²⁷ ◆ Showcases "green" careers and employment ◆ Includes NGOs providing EfS work synopsis of their educational offers signposting relevant work

²⁵ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

²⁶ Use of copyable printable worksheets etc. should be discouraged

²⁷ All activities should be grounded in best practice as evidenced in research

<p>Vision and Characteristics of Professional Learning:</p> <p>Our Aim is: to empower the teaching profession to strengthen its professionalism and expertise to meet the challenging educational needs of young people in the 21st century. (p10)</p>	<p>ESDF Web version newsletter (promoted on the searchable database and social media)</p> <p>Identify and promote EfS good practice indicators using local case studies</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p> <p>Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).</p>
<p>Policy Commitments – One of the five key areas: <u><i>Development and dissemination of good practice</i></u></p> <p>Teachers will have access to a virtual centre of excellence. Best practice examples and useful resources will be developed based on consultation with practitioners and mapped to the Department's vision and characteristics. This will build on and</p>	<p>Online EfS searchable resource²⁸ which:</p> <p>Shares Teacher professional learning opportunities</p> <p>Provides up-to-date communications in response to current events</p> <p>Offers curricular materials and lesson plans²⁹ (including bite-sized lessons ideas)³⁰</p> <p>Showcases "green" careers and employment</p> <p>Includes NGOs providing EfS work synopsis of their educational offers signposting relevant work</p>

²⁸ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

²⁹ Use of copyable printable worksheets etc. should be discouraged

³⁰ All activities should be grounded in best practice as evidenced in research

<p>expand work already carried out by EA, HEIs, CCEA and others. (p13)</p>	<p>ESDF Web version newsletter (promoted on the searchable database and social media)</p> <p>Identify and promote EfS good practice indicators using local case studies</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p>
<p>Policy Commitments – One of the five key areas:</p> <p><u><i>Teacher Professional Learning</i></u></p> <p>Teachers will have access to a coherent and career-long professional learning framework underpinned by revised teacher competencies and built on established best practice and collaboration at all stages. (p14)</p> <p>Teachers, as leaders of learning, with opportunities to develop specialist knowledge and skills in specific areas together with coaching and mentoring skills to enable them to share outstanding practices with others. (p16)</p>	<p>Online EfS searchable resource³¹ which:</p> <p>Shares Teacher professional learning opportunities</p> <p>Provide opportunities for teachers to spend time in nature and connect with their local environment would be invaluable.</p> <p>Consider hosting online info sessions for local action groups to provide teachers with live case studies e.g. Save Our Sperrins, Zero Waste and Stop the Incinerator</p> <p>Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements</p>

³¹ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

School leaders with ongoing access to a mix of experiential, vocational and academic professional learning to enable them to lead and inspire their teachers, pupils and parents. (p17)

Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term)

ESDF Members could support teacher-led peer professional learning opportunities relating to EfS

Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.

Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).

Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.

NEW DECADE, NEW APPROACH (IRISH AND BRITISH GOVERNMENTS, 2020)

The New Decade, New Approach (NDNA) agreement was announced by the Irish and British governments in January 2020 and endorsed by all the main political parties in Northern Ireland. The document sets the Executive's priorities.

Relevant Intentions	NIEL Recommendations
<p>The Executive will establish an external, independent review of education provision, with a focus on securing greater efficiency in delivery costs, <u>raising standards</u>, access to the curriculum for all pupils, and the prospects of moving towards a single education system. (p7)</p> <p>In support of both economic and educational objectives, the Executive <u>will develop an enhanced approach to careers advice, curriculum, training and apprenticeships</u> to enhance employability and support economic growth. (p9)</p> <p>The parties agreed approach is to build on the outcomes in the previous Programme for Government, adding a <u>new focus on the priorities of</u> housing; <u>education</u>; childcare; infrastructure and services; <u>climate change</u>; ending sectarianism; and tackling paramilitarism. (p26)</p> <p>Deliver an enhanced approach to careers advice, curriculum, training and apprenticeships to enhance employability. (p39)</p>	<p>Online EfS searchable resource³² which:</p> <ul style="list-style-type: none"> Showcases "green" careers and employment Highlights vocational opportunities and apprenticeships <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p> <p>Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements.</p> <p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term).</p> <p>Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.</p> <p>NGOs could support vocational courses and apprenticeships offered by post primary schools</p>

³² This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

Transforming Public Services – Improvements and reforms to deliver a better and more efficient education system – including through an external, independent review of education provision. (p42)

The Executive will tackle climate change head on with a strategy to address the immediate and longer-term impacts of climate change.

NGOs could collaborate to support the development of quality material for schools, coming together to raise awareness and encourage action in the most pressing local and global issues

Coordination of work experience placements for Key Stage 4 and Tertiary students

Highlight vocational opportunities and apprenticeships

Include knowledge and understanding of:

- Opportunities to mitigate the climate and ecological crisis

- Sustainability, the environment and ecology

- The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas

Include case examples of sustainable practice as an individual, group, community and nation

NIEL

The NIEL coalition can encourage its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy.

Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.

Develop a connected learning idea for KS3 focusing on EfS and revise and update the existing 'Dodging Doomsday' resource and consider an alternative title.

THE TEN POINT PLAN FOR A GREEN INDUSTRIAL REVOLUTION: BUILDING BACK BETTER, SUPPORTING GREEN JOBS, AND ACCELERATING OUR PATH TO NET ZERO (NOVEMBER 2020)

The ten point plan sets out the approach the UK government will take to build back better, support green jobs, and accelerate the UK's path to net zero.

Relevant Intentions	NIEL Recommendations
<p>The net impact of the transition will depend on.....the flexibility of the labour market to match vacancies with the necessary skills. Government policy will need to continue to respond to this, ensuring levelling up across the country.</p> <p>Point 9: Protecting our natural environment (p24)</p> <p>We will immediately create more green jobs with a £40 million second round of the Green Recovery Challenge Fund.</p>	<p>Online EfS searchable resource³³ which:</p> <p>Showcases "green" careers and employment</p> <p>Highlights vocational opportunities and apprenticeships</p> <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p> <p>Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements.</p> <p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term).</p> <p>Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.</p>

³³ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

	<p>NGOs could support vocational courses and apprenticeships offered by post primary schools</p> <p>NGOs could collaborate to support the development of quality material for schools, coming together to raise awareness and encourage action in the most pressing local and global issues</p> <p>Coordination of work experience placements for Key Stage 4 and Tertiary students</p> <p>Highlight vocational opportunities and apprenticeships</p> <p>Include knowledge and understanding of:</p> <ul style="list-style-type: none"> Opportunities to mitigate the climate and ecological crisis Sustainability, the environment and ecology The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas <p>Include case examples of sustainable practice as an individual, group, community and nation</p> <p>NIEL</p>
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UNESCO GETTING CLIMATE READY – A GUIDE FOR SCHOOLS ON CLIMATE CHANGE (2016)

A UNESCO guide as a part of the Education 2030, many of the guidelines in the document were developed from case studies and experiences of UNESCO ASPnet schools involved in climate action.

Relevant Intentions	NIEL Recommendations
<p>Education for Sustainable Development and Climate Action</p> <p>The far reaching, global consequences of climate change make it clear that ESD must include a strong climate action component. Schools have a central role to play in helping learners understand the causes of climate change so that they can make informed decisions and take appropriate actions, and in acquiring the necessary values and skills to participate in the transition to more sustainable lifestyles, green economies and sustainable climate resilient societies. (p2)</p> <p>While concerted international action is crucial to reduce climate change.... responses to climate change start with each of us, with the ways by which we think and act, with our attitudes and behaviours.</p> <p>In a whole school approach, students' classroom learning about climate change is reinforced by the formal and informal messages promoted by the school's values and actions. In other words, students – girls and boys alike – and other members of the school community live what they learn and learn what they live. (P3)</p>	<p>NGOs could offer teachers time outside of the classroom to reflect on the state of the world and increase their own understanding of the threat of the climate crisis.</p> <p>NGOs could offer accredited courses to teachers to develop their understanding, passion, practice and commitment to EfS. These could include shorter E Learning courses through to Master Levels.</p> <p>Support teachers to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.</p> <p>Share their expertise and passion to develop teacher confidence and commitment to education for sustainability, recognising that personal passion is a major driver for classroom practice.</p> <p>Provide opportunities for teachers to spend time in nature and connect with their local environment would be invaluable.</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p> <p>Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).</p>

The whole-school approach to climate change means that an educational institution includes action for reducing climate change in every aspect of school life.

Key Considerations (p3)

Knowledge and goodwill are rarely enough to achieve whole-school change. The experience of schools around the world suggests that climate action projects are most likely to be successful when they are resourced with:

A knowledgeable and committed school principal

Expertise, in the form of well-trained teachers and access to external experts

Dedicated facilitators to manage this process

Supporting materials and teaching resources

Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements.

Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term).

ESDF

Members could support teacher-led peer professional learning opportunities relating to EfS which should be aligned with the vision and characteristics as outlined in the 'Learning Leaders, A Strategy for Teacher Professional Learning 2020

ESDF could provide a learning hub with NGOs providing twilight and e-learning courses

ESDF should monitor and keep pace with EfS practice internationally, learning from best practice to share within Northern Ireland

ESDF could run competitions, conferences and awards could be used as an incentive for schools to get involved in EfS, as an encouragement for those who already are involved and as an acknowledgement of achievements.

Employability opportunities for young people with additional needs could also be explored.

NGOs could collaborate to support the development of quality material for schools, coming together to raise awareness and encourage action in the most pressing local and global issues

NGOs/NGO partnerships should actively promote whole school approaches to EfS

Become familiar with the NI curriculum and explore how work could be made more widely relevant across the curriculum. For example, to include:

Literature & poetry Art & music Maths History ICT PDMU

Learning for Life and Work (citizenship and employability)

Link new and existing educational material to the provision in the NI curriculum, highlighting relevant:

key stages areas of learning cross curricular skills connected learning opportunities

thinking skills and personal capabilities and attitudes and dispositions

Any new material development should be tied into the NI curriculum requirements

Develop resources and activities for KS1, 3 and 4. (KS2 is well catered for!)

Seek advice from the ESDF for guidance on how to adapt or connect their materials to the curriculum

Creation of resources or adaptation of resources to suit different Key Stages and linked to topic work in Primary or different subjects at post primary and tertiary levels

Quality and up to date resources should be shared through the CCEA website for promotion to educators

Areas for Action

Teaching and Learning

Addressing climate change is complex. Environmental, economic, social, cultural, ethical, political, scientific and technological issues all come into play. For this reason...**schools should include climate action in all subjects** – not only in science and social science courses.

You can include relevant issues in every subject. (P11)

Teach Critical, Creative and Futures Thinking

In our complex, ever-changing world, it is not enough to teach specific, expert-endorsed ideas about climate action. You need to teach critical, creative and futures thinking skills. (P13)

Empower Students to Take Action

Learn about action: teach students the knowledge and skills they need to be successful... practice skills (consensus-building, active listening, advocating, empathizing) (P14)

Learning through Action: through selection, planning and implementing climate [environmental] actions.... Empower students to use their learning as the basis for making positive change in their lives, schools and communities. (P14)

Teach and model:

Viewing the world through more than just an anthropocentric lens

Critical literacy used to engage and explore environmental issues from multiple perspectives

Using social, economic, and political lenses to environmental work, stressing the interconnected nature of our planet

Frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety

Promote young people's participation by:

showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes.

Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other

Linking to children and young people in other parts of the UK, Ireland and the wider world

NIEL

The NIEL coalition can encourage its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy.

Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.

Include knowledge and understanding of:

Opportunities to mitigate the climate and ecological crisis

Sustainability, the environment and ecology

<p>Learning from Action: have students reflect on what they achieved, what they learned, and what they would do differently next time. (P14)</p>	<p>The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas</p> <p>Include case examples of sustainable practice as an individual, group, community and nation</p> <p>Connect personal wellbeing to planetary wellbeing</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.</p> <p>Encourage self/group generated ideas to meet local, national and planetary challenges</p>
<p><u><i>Building Community Partnerships for Learning and Teaching</i></u></p> <p>[Schools] need to consider developing close partnerships with the community.</p> <p>Learning experiences outside the classroom help students to become more connected to their community. (P16)</p> <p>Use your school campus as a laboratory for learning – give your students opportunities to see, create and enjoy the systems that make your school more climate friendly. (P16)</p>	<p>NGOs should consider how their work provides opportunities for young peoples' engagement and interest in volunteering, entrepreneurship and those completing young leaders awards and initiatives such as Duke of Edinburgh and President's Award.</p> <p>Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.</p> <p>Working in partnership, complimentary NGOs should target businesses³⁴ and foundations to fund their educational work.</p> <p>Online EfS searchable resource³⁵ which:</p> <ul style="list-style-type: none"> • includes NGOs providing EfS work • synopsis of their educational offers • signposting relevant work

³⁴ As a part of their commitment to Corporate Social Responsibility (CSR)

³⁵ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

Take learning outside the classroom: bring your students into the schools immediate neighbourhood.... [they] can measure biodiversity in natural spaces, interview community members, examine and learn about natural and/or urban landscapes that exist around a school. (P16)

Organise local field trips: bring [students] to visit sites such as local farms, disaster support services, water treatment or waste recycling facilities. These visits **offer students engaging, real-life contexts for exploring climate change challenges and solutions.** (P16)

Have students learn through experience: students can experience the day-to-day work of local businesses and organisations by taking part in cooperative education and community service-learning programmes.

Challenge students to take action – have you students design and carry out action projects based on real-life needs identified by a local environmental group. Families and other members of the community can be your allies, contributing knowledge, skills, time and resources.(P16)

- ESDF Web version newsletter

Identify and promote EfS good practice indicators using local case studies

UN CONVENTION ON THE RIGHTS OF THE CHILD

UN FRAMEWORK CONVENTION ON CLIMATE CHANGE (1992) (UNFCCC)

PARIS CLIMATE AGREEMENT

Relevant Intentions	NIEL Recommendations
UN CONVENTION ON THE RIGHTS OF THE CHILD	
<p>Recalling that, in the Universal Declaration of Human Rights, the United Nations has proclaimed that childhood is entitled to special care and assistance,</p> <p>Convinced that the family, as the fundamental group of society and the natural environment for the growth and well-being of all its members and particularly children, should be afforded the necessary protection and assistance so that it can fully assume its responsibilities within the community,</p> <p style="text-align: center;"><u>ARTICLE 29</u></p> <p>1. States Parties agree that the education of the child shall be directed to:</p> <p>(e) The development of respect for the natural environment.</p>	<p>EfS Includes knowledge and understanding of:</p> <p>Opportunities to mitigate the climate and ecological crisis, Sustainability, the environment and ecology</p> <p>The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas</p> <p>Include case examples of sustainable practice as an individual, group, community and nation</p> <p>Connect personal wellbeing to planetary wellbeing</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.</p> <p>Encourage self/group generated ideas to meet local, national and planetary challenges</p> <p><u>Resources should include:</u></p> <ul style="list-style-type: none"> Rationale Knowledge and understanding of the issues explored. Any opportunities for outdoor learning or field trips Children and young people's voice/ participation Ideas for taking action whether individually, as a group, school, local or wider community Case studies of good practice Progression on a topic through the educational experience <p>NGOs could collaborate to support the development of quality material for schools, coming together to raise awareness and encourage action in the most pressing local and global issues</p>

NGOs/NGO partnerships should actively promote whole school approaches to EfS

ESDF

ESDF could **provide a learning hub** with NGOs providing twilight and e-learning courses

Support teachers to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.

Share their expertise and passion to develop teacher confidence and commitment to education for sustainability, recognising that personal passion is a major driver for classroom practice.

Provide opportunities for teachers to spend time in nature and connect with their local environment would be invaluable.

Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.

Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).

EfS Engagement through:

Opportunities to appreciate and connect with nature, promoting a sense of awe and wonder in the natural world

Showing the value of nature for its intrinsic worth and its uniqueness in our known universe

Highlight the benefits of connecting with nature and its contribution to wellbeing through experience

**UN Framework Convention on Climate Change (1992) (UNFCCC)– International Environmental Treaty signed by 154 states
(United Kingdom of Great Britain and Northern Ireland are signatories)**

COMMITMENTS

1. All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

- (i) **Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations**

Article 4

1. All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

- (i) **Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations; and**

Article 6

NGOs should consider how their work provides opportunities for young peoples' engagement and interest in volunteering, entrepreneurship and those completing young leaders awards and initiatives such as Duke of Edinburgh and President's Award.

NGOs could support vocational courses and apprenticeships offered by post primary schools

Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.

Opportunities for [NGO] partnership may be beneficial in:

- ◆ Building momentum through the presentation of a united front calling for more focus on EfS and change
- ◆ Providing opportunities to present connected learning opportunities
- ◆ Influencing the curriculum to include stronger reference to sustainability and EfS skills like critical literacy and citizenship

Benefits of [NGO] collaboration and partnerships can:

- ◆ Offer the opportunity for a more amplified voice for public awareness and engagement campaigns (and should become the norm in the sector)
- ◆ Offer the chance to conduct joint research related to sustainability and environmental issues.
 - Completed research should be widely shared and could be included in a section on the ESDF site.
 - Together call for increased focus on EfS throughout all levels of education ensuring all learners' entitlement to learning for sustainability.

Exploit current opportunities in the political arena, to activate support for climate justice such as:

EDUCATION, TRAINING AND PUBLIC AWARENESS In carrying out their commitments under Article 4, paragraph 1 (i), the Parties shall:

(a) Promote and facilitate at the national and, as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:

(i) **the development and implementation of educational and public awareness programmes on climate change and its effects;**

(ii) **public access to information on climate change and its effects;**

(iii) **public participation in addressing climate change and its effects and developing adequate responses;** and

(b) Cooperate in and promote, at the international level, and, where appropriate, using existing bodies:

(i) **the development and exchange of educational and public awareness material on climate change and its effects;** and

Net Zero Green New Deal NI Climate Bill Covid 19 pandemic the drive for circular economies

COP26 systems reset.

Consider hosting online info sessions for local action groups to provide teachers with live case studies e.g., Save Our Sperrins, Zero Waste and Stop the Incinerator

Promote young people's participation by:

showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes.

Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other

Linking to children and young people in other parts of the UK, Ireland and the wider world

NIEL

The NIEL coalition can **encourage** its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy.

Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.

ESDF

Members could support teacher-led peer professional learning opportunities relating to EfS which should be aligned with the vision and characteristics as outlined in the 'Learning Leaders, A Strategy for Teacher Professional Learning 2020

Paris Climate Agreement -it is an agreement within the UN Framework Convention on Climate Change

The Parties to this Agreement,

Being Parties to the United Nations Framework Convention on Climate Change, hereinafter referred to as “the Convention”,

***Affirming* the importance of education, training, public awareness, public participation, public access to information and cooperation at all levels on the matters addressed in this Agreement**

Article 12

Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement.

Include EfS knowledge and understanding of:

Opportunities to mitigate the climate and ecological crisis

Sustainability, the environment and ecology

The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas

Include case examples of sustainable practice as an individual, group, community and nation

Connect personal wellbeing to planetary wellbeing

Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.

Encourage self/group generated ideas to meet local, national and planetary challenges

Resources should include:

Rationale

Knowledge and understanding of the issues explored.

Any opportunities for outdoor learning or field trips

Children and young people’s voice/ participation

Ideas for taking action whether individually, as a group, school, local or wider community

Case studies of good practice

Progression on a topic through the educational experience

NIEL

The NIEL coalition can **encourage** its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy.

Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.

ESDF

Members could support teacher-led peer professional learning opportunities relating to EfS which should be aligned with the vision and characteristics as outlined in the 'Learning Leaders, A Strategy for Teacher Professional Learning 2020

ESDF

ESDF could **provide a learning hub** with NGOs providing twilight and e-learning courses

Support teachers to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.

Share their expertise and passion to develop teacher confidence and commitment to education for sustainability, recognising that personal passion is a major driver for classroom practice.

Provide opportunities for teachers to spend time in nature and connect with their local environment would be invaluable.

Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.

Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).

	<p>Online EfS searchable resource³⁶ which:</p> <ul style="list-style-type: none"> Shares Teacher professional learning opportunities Provides up-to-date communications in response to current events Offers curricular materials and lesson plans³⁷ (including bite-sized lessons ideas)³⁸ Showcases “green” careers and employment Highlights vocational opportunities and apprenticeships Includes NGOs providing EfS work <ul style="list-style-type: none"> synopsis of their educational offers signposting relevant work ESDF Web version newsletter (promoted on the searchable database and social media) Identify and promote EfS good practice indicators using local case studies
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³⁶ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

³⁷ Use of copyable printable worksheets etc. should be discouraged

³⁸ All activities should be grounded in best practice as evidenced in research

NI EXECUTIVE PROGRAMME FOR GOVERNMENT DRAFT OUTCOMES – 25 JANUARY 2021- POST PRIMARY CURRICULUM

<p>POST PRIMARY KS3</p> <p>PfG Desired Outcome: “Our Children & Young People have the best start in life”</p> <p>Aim</p> <p>The Northern Ireland Curriculum aims to empower young people to achieve their potential and to make informed and responsible decisions through their lives.</p> <p>We want to ensure all our children and young people have access to the high-quality education they all deserve and are equipped with the skills to help them make the best life choices (p12).</p> <p>Skills and Attainment...Delivering a high-quality curriculum and an enhanced approach to careers advice, improving educational achievement and life chances...(p13)</p>		
EXISTING CURRICULUM PROVISION	PfG DESIRED OUTCOMES	EXTENDED CURRICULUM PROVISION
<p>POST PRIMARY KS3</p> <p>As an individual</p> <p>Personal health</p> <ul style="list-style-type: none"> live a healthy lifestyle and make healthy choices; and Contribute positively to their peer group <p>Spiritual awareness</p> <ul style="list-style-type: none"> develop an inner appreciation of life purpose <p>Mutual understanding</p> <ul style="list-style-type: none"> respect and co-operate with others. personal health live a healthy lifestyle and make healthy choices; and contribute positively to their peer group 	<p>“Our children & Young People have the best start in life”</p> <p>We also recognise the importance of ensuring our children and young people have good health, quality physical environments with space to play, opportunities for cultural and artistic expression and to make a positive contribution to society, and protection from violence and harm (p12)</p> <p>“We live and work sustainably – protecting the environment”</p> <p>Our health and well-being are directly affected by the quality of the environment around us. (p14)</p> <p>We have a collective responsibility to tackle climate change to ensure that our children and future generations can draw benefit and enjoyment from our environment and each of us must play a part in ensuring that happens. (p14)</p> <p>“We live and work sustainably – protecting the environment”</p>	<p>Children and young people</p> <ul style="list-style-type: none"> appreciate the inextricable link between their well-being and the well-being of the planet have opportunities to connect with the natural world to enhance their well being understand the impact of different types of pollution in the air, in water and in soil on our health e.g., plastics, noise, oil, nitrogen dioxide, carbon monoxide, particulate matter, waste and understand what needs to happen to reduce pollution levels and create a healthier environment appreciate that our well-being has to do more with how we are not what we have. understand the link between the rise in zoonotic epidemics such as SARS, avian flu, swine flu and Covid 19 and habitat loss due to environmental destruction as a result of increasing needs of human populations. <p>Children and young people have opportunities to exercise both their individual and collective responsibility in relation to tackling climate change, biodiversity loss and pollution.</p>

<p>As a contributor to society</p> <p>Ethical awareness</p> <ul style="list-style-type: none"> • be aware of some of the dilemmas arising from scientific, technological and environmental change; and • assess the human and environmental impact of ethical choices and take action as appropriate. <p>Cultural Understanding</p> <ul style="list-style-type: none"> • Recognise the richness and diversity of cultural influences in contemporary society; and • Engage with human cultural achievements in a range of forms and contexts <p>Citizenship</p> <ul style="list-style-type: none"> • respect the equal rights of others. • recognise the interdependence of people, <p>Communities and the environment;</p> <ul style="list-style-type: none"> • negotiate and compromise; • use democratic means to influence change; and • contribute to the welfare of school, the community and the environment. 	<p>Our health and well-being are directly affected by the quality of the environment around us. (p14)</p> <p>We need to ensure our infrastructure is integrated, efficient and sustainable and people are encouraged to make environmentally responsible choices. (p14)</p> <p>“People want to live, work and visit here”</p> <p>Planning...Creating and shaping high quality, sustainable, places for people to live, work and spend leisure time. Furthering Sustainable Development and supporting positive place-making and effective stewardship</p>	<p>In addition to learning about the causes and effects of climate change they learn about possible solutions to mitigate and even reverse the impact of climate change.</p> <p>‘Future’ thinking is encouraged and developed across all areas of the curriculum</p> <p>Children and young people have opportunities to;</p> <ul style="list-style-type: none"> • connect with nature through outdoor learning related to education for sustainable development. • engage with the natural environment for creative expression • utilise nature for supporting their physical and mental well being <p>Sustainable and ethical choices become the norm rather than the exception and are recognised not just as environmentally appropriate but economically sound</p>
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EXISTING CURRICULUM PROVISION	PfG DESIRED OUTCOMES	EXTENDED CURRICULUM PROVISION
<p>POST PRIMARY KS3</p> <p><i>As a contributor to the economy and the environment</i></p> <p>Employability</p> <ul style="list-style-type: none"> be aware of the impact of technology and global markets on work patterns and prospects; be proactive, enterprising, adaptable and open to new ideas; enhance career options through life-long learning; and be aware of the rights of workers and employers. <p>Economic awareness</p> <ul style="list-style-type: none"> understand the economic interdependence of individuals, organisations and communities locally and globally; critically examine how wealth is created and distributed; make balanced and informed economic judgements; be discerning and effective consumers; and plan and manage personal finances effectively. <p>Education for sustainable development</p>	<p>Capability and Resilience...Equipping children and young people with the knowledge and support to make safe, healthy and sustainable life choices, building their social, cultural and environmental awareness.... (p13)</p> <p>“We live and work sustainably – protecting the environment”</p> <p>By taking a Green Growth approach we will manage our resources efficiently and effectively, reducing our carbon emissions to ensure our environment is protected and enhanced while achieving sustainable economic growth.... (p14)</p> <p>“Our economy is globally competitive, regionally balanced and carbon neutral”</p> <p>It is internationally recognised that a sustainable development approach seeks to progress economic and social ambitions while protecting and enhancing the natural environment (P22)</p> <p>The production of high quality, nutritious food is a crucially important factor for our economy...The intention is to grow an industry that is environmentally sustainable, supporting high quality air, water and soil. An industry with a low carbon footprint which promotes biodiversity.... (p22)</p> <p>Green Economy: Developing our economy and energy supply in an environmentally friendly way, recognising the impacts industry has on climate change and striving for low-carbon/zero-carbon alternatives (p23)</p> <p>“People want to live, work and visit here”</p> <p>Growth.... growing the economy to attract and stimulate investment across NI, including building sustainable investment, encouraging business start-ups</p>	<p>Children and young people.</p> <ul style="list-style-type: none"> learn about and appreciate the interconnected nature of life on Earth start to appreciate the complexities of the natural world and its relationship with human societies have opportunities to reflect on their place in the world, recognising the role they can play as an individual, as a group and as a member of wider society. engage in a range of real-life opportunities to take action to develop their sense of agency <p>e.g., Reduce their own carbon footprint or use social media to influence friends and family to do the same.</p> <p>Take part in community actions to mobilise and influence local or international policy.</p> <ul style="list-style-type: none"> reflect on their place in the world, developing their own sense of belonging, recognise the challenges of the times we live in and appreciate the significance of our actions now are encouraged to question, challenge the status quo, explore different perspectives to develop critical thinking skills, have opportunities to use their imagination and problem-solving skills to develop their creativity and develop ‘futures’ thinking skills with opportunities to explore probable, possible and desirable outcomes <p>Educators appreciate the rapidly changing world of work and present careers opportunities in all sectors of the workforce through the lens of justice and sustainability.</p> <p>Through cross curricular learning children and young people learn about innovations which support sustainable futures E.g.</p>

<ul style="list-style-type: none"> • understand the interdependence of society, the economy and the environment; • develop respect for the needs of both present and future generations; • demonstrate how action can help improve the quality of life for people, locally and globally; and • exercise environmental responsibility through conservation of resources, waste management and promotion of local and global biodiversity 	<p>and development through City and Growth Deals and supporting sustainable development of rural industries.... (p29)</p> <p>Competing Globally.... meeting international environmental standards.... (p29)</p> <p>Planning...Creating and shaping high quality, sustainable, places for people to live, work and spend leisure time. Furthering Sustainable Development and supporting positive place-making and effective stewardship</p>	<ul style="list-style-type: none"> • in Home Economics they could learn about the potential of more sustainable food sources the development of ‘cultured meat’ or plant-based proteins • in Technology and Design, they could learn about the advances in ‘biodegradable plastics or cellular wood for furniture materials or the use of recycled plastics for making road surfaces • in Science they could assess the social, environmental and economic impact of common chemicals and investigate greener alternatives <p>Schools are models of good practice in relation to efficient and careful use of resources, waste management, ethical procurement and sustainable energy consumption. Children and young people not only learn about sustainability but live it.</p> <p>Teaching and learning incorporates education <u>about</u> sustainability, <u>through</u> sustainable practices equipping them <u>for</u> more sustainable lifestyles.</p> <p>Children and young people’s potential is measured according to a wider range of indicators than their economic potential and their contributions to the economy.</p> <p>Societal well-being indicators such as self-perceived general health, level of education, rates of employment, life satisfaction and interpersonal trust, coupled with environmental factors such as water quality, air quality and protected natural environments measure more than GDP.</p> <p>(https://www.government.se/articles/2017/08/new-measures-of-wellbeing/)</p> <ul style="list-style-type: none"> • in IT they could consider the growing carbon footprint of digital media and cloud storage
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		<ul style="list-style-type: none"> • in Geography they could research and design more sustainable communities, highlighting factors such as transport, food production, and waste disposal that could be improved • in Business they could include environmental and social responsibility in the design and marketing of a product <p>in Arts explore the power of the art, music, visual image, digital media and literature to influence individual and societal change.</p>
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TEACHERS PROFESSIONAL LEARNING FRAMEWORK PROJECT FINAL REPORT (MARCH 2019)

Overview of Teachers Professional Learning Framework Project and Actions:

An extensive range of professional learning activities are provided for teachers by the Department of Education (DE) through teacher support services, Education Centres, DE agencies and other initiatives. A complete evaluation of the impact of these professional learning activities is crucial to ensure that the needs of teachers, schools, students and the DE are being met effectively and efficiently.

The DE has committed to evaluating the impact of Teachers' Professional Learning (TPL) activities, including a specific evaluation of TPL activities in the area of student wellbeing, in the Action Plan for Education 2018. In 2018, the ERC began working on behalf of the DE to develop a research based framework for the evaluation of TPL. This project is guided by a Steering Committee which includes representatives from the DE and teacher support services responsible for the provision of TPL.

Next Steps include:

2021 – The findings from the survey of principals and teachers will be published. TPL providers will be invited to complete written submissions detailing their perspectives on TPL in Ireland and the report from this phase will be published. Further in-depth study of TPL in the area of student wellbeing will commence.

2022 – Findings from the in-depth study of TPL in the area of student wellbeing will be published. The final framework for the evaluation of TPL will also be published.

Document Reference	Existing Teacher Training Practice in NI	NI Strategy Recommendations
According to the British Education Research Association (BERA) – Royal Society for the Encouragement of Arts, Manufacturers and Commerce (RSA) Inquiry into research and the teaching profession “every learner is entitled to teaching that is informed by the latest relevant research. Every teacher is entitled to work in a research-rich environment that supports the development of their research literacy, and offers access to facilities and resources (both on-site and online) that supports sustained engagement with and in research (BERA, 2014, p7)	Policy commitment 5 Teachers will have access to a virtual centre of excellence. Best practice examples and useful resources will be developed based on consultation with practitioners and mapped to the Department’s vision and characteristics. Policy commitment 14	Online EfS searchable resource ³⁹ which: <ul style="list-style-type: none">• Shares Teacher professional learning opportunities• Provides up-to-date communications in response to current events• Offers curricular materials and lesson plans⁴⁰ (including bite-sized lessons ideas)⁴¹• Showcases “green” careers and employment• Includes NGOs providing EfS work synopsis of their educational offers signposting relevant work ESDF Web version newsletter (promoted on the searchable database and social media)

³⁹ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

⁴⁰ Use of copyable printable worksheets etc. should be discouraged

⁴¹ All activities should be grounded in best practice as evidenced in research

	<p>The Department will engage with the teaching profession on the most effective ways to maximise the use of technology to design and deliver professional learning for the 21st century.</p>	<p>Identify and promote EfS good practice indicators using local case studies</p> <p>Coordination of work experience placements for Tertiary students</p>
<p>The importance of the teacher as a reflective practitioner who engages in evidence-based practice has been researched and documented extensively (Harford & MacRuaric, 2008; Day, 1993)</p> <p>Knowing how to approach and learn from other classroom based research will assist teachers in reviewing their own practice and adjust it, if necessary, in order to achieve enhanced learning outcomes for their pupils. Therefore, ensuring that teachers are more than purely recipients of professional learning, that they are actively seeking answers by engaging with existing research, but also plan their own classroom based research, will lead to their empowerment as professionals and will benefit their practice (de Paor & Murphy, 2018) (p 9)</p>	<p>Policy commitment 6</p> <p>Teachers at all stages of their careers will have opportunities to develop their skills in action research, through closer partnership arrangements between</p> <p>schools and the EA, HEIs and GTCNI</p>	<p>Provide opportunities for teachers to spend time in nature and connect with their local environment would be invaluable.</p> <p>Consider hosting online info sessions for local action groups to provide teachers with live case studies e.g. Save Our Sperrins, Zero Waste and Stop the Incinerator</p> <p>Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements</p> <p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term)</p> <p>ESDF Members could support teacher-led peer professional learning opportunities relating to EfS</p>

<p>Improve continuity from Initial Teacher Education (ITE) to career-long practices:[there is a need] for continuity from ITE to career-long practice in order to ensure newly qualified teachers continue to reap the benefits of the relationship with the academic community. For example, they could continue to have access to cutting-edge-practice-informed, educational research and enjoy mentoring partnerships with ITE tutors and school-based mentors. (p31)</p>	<p>Policy commitment 3</p> <p>Teachers will have the opportunity to access support from a mentor or coach to identify areas for improvement and their individual learning needs. This will inform the development of their tailored professional learning plans.</p>	<p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p> <p>Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).</p> <p>Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements.</p> <p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term)</p> <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p>
<p>Proposed Pilot Strand 2: Continuity from ITE to career-long practice: Funding a number of seconded teachers to work with research active ITE tutors in order to develop professional communities of practice based around subjects/themes/priorities and online, and other space where newly qualified teachers can find support and contribute their fresh ideas. (p32)</p>	<p>Policy commitment 9</p> <p>Teacher tutors in schools and university tutors will have opportunities to work alongside each other. This</p>	<p>Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements.</p> <p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term)</p>

	<p>will enable them to support and assess the progress</p> <p>of student teachers in ITE and beginning teachers during induction and EPD.</p>	<p>Online EfS searchable resource⁴² which:</p> <ul style="list-style-type: none"> • Shares Teacher professional learning opportunities • Provides up-to-date communications in response to current events • Offers curricular materials and lesson plans⁴³ (including bite-sized lessons ideas)⁴⁴ • Showcases “green” careers and employment • Includes NGOs providing EfS work synopsis of their educational offers signposting relevant work <p>ESDF Web version newsletter (promoted on the searchable database and social media)</p> <p>Identify and promote EfS good practice indicators using local case studies</p> <p>Coordination of work experience placements for Tertiary students</p>
<p>The focus on teacher research literacy is important to build research capacity in the classroom in a supportive manner. For this reason, teachers need to have access not only to purely academic research accounts presented by other teachers, perhaps as part of post-graduate course requirements.... offering teachers access to research is ranked highly in the BERA-RSA enquiry into research and teacher education recommendations:</p> <p>“...further work needs to be undertaken in each of the four jurisdictions to ensure that relevant high-quality research is easily accessible to all practitioners and policymakers” (BERA, 2014; p. 27) (p34)^{45*}</p>	<p>Policy Commitment 11</p> <p>School leaders will have opportunities to access extended professional learning – this may take the form of additional study or placements in other organisations including within and beyond the education sector.</p>	<p>ESDF Web version newsletter (promoted on the searchable database and social media)</p> <p>Identify and promote EfS good practice indicators using local case studies</p>

⁴² This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

⁴³ Use of copyable printable worksheets etc. should be discouraged

⁴⁴ All activities should be grounded in best practice as evidenced in research

^{45*} currently in other jurisdictions, teachers are given access to research, for example in Wales this is part of the Professional Learning Passport resource space (WEC, 2016-2019) and in Scotland this service is provided to members through their professional body. In the ROI, the Teaching Council website offers access to its members to open access resources and to academic journal research through the members’ registration (The Teaching Council, 2015). Most jurisdictions provide teachers access to research through the EBSCO research database. (p34)

<p>Practice-based research should be, in the first instance, the focus of any research activity carried out by teachers. It has been argued that the most important element of effective teacher professional learning, and at the same time one of the prerequisites for effective adoption of innovation by teachers, is that the aims and objectives of the training or innovation need to be clear and related to the teachers' own interests and relevant to their classroom practice (Darling-Hammond et al., 2017; Davis, 1997). The BERA-RSA Inquiry into the role of research in teacher education (BERA, 2014) has also stressed that:</p> <p>"...there is also strong evidence that teachers and teacher educators need to be equipped to engage in enquiry-based practice, which means having the capacity, motivation and opportunity to use research related skills to investigate what is working well and what isn't effective in their own practice." (BERA, 2014; p. 18) (p37)</p>	<p>Policy commitment 4</p> <p>Learning drawn from research and ETI evaluations will inform the development of 'next' practice pathfinder projects at all levels of professional learning.</p>	<p>Offer short term placement opportunities for student teachers as part of their (non-school based) 3rd Year placements.</p> <p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term)</p> <p>ESDF Web version newsletter (promoted on the searchable database and social media)</p> <p>Identify and promote EfS good practice indicators using local case studies</p> <p>Coordination of work experience placements for Tertiary students</p> <p>Share their expertise and passion to develop teacher confidence and commitment to education for sustainability, recognising that personal passion is a major driver for classroom practice.</p>
<p>The last and perhaps most important element necessary for the implementation of the principle relating to research collaboration is that of support – if teachers are to engage in research they will need to be offered adequate training and support (Taylor, 2017; BERA, 2014; Davis & Resta, 2002)</p> <p>Findings from recent UCETNI research, which employed the teacher as a researcher methodology, showed that support is very</p>	<p>Policy commitment 12</p> <p>Where there is evidence of underachievement in a school, the EA will provide support in strategic leadership, leading change, and coaching to assist in improving pupil outcomes.</p>	<p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p> <p>Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable</p>

<p>important for the success of any activity which requires teachers to engage in research (Galanouli & Clarke, 2019)</p>		<p>Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).</p> <p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term).</p>
<p>....recommendations for the Department of Education for Northern Ireland to support schools in promoting research informed reflective practice (BERA, 2014).</p> <p>The Learning Leaders Strategy, under Policy Commitment 6, prepares the ground for such support by stating that "Teachers at all stages of their careers will have opportunities to develop their skills in action research, through closer partnership arrangements between schools and the EA, HEIs and GTCNI." (DE, 2016; p. 13)</p>	<p>Policy commitment 7</p> <p>Support will be provided for the ongoing development and sustainability of professional learning communities and/or self-directed learning networks</p> <p>where schools or groups of teachers can demonstrate the capacity to deliver clear educational benefits.</p>	<p>Offer a range of placements opportunities to support teacher professional learning such as 'teacher as researcher', secondments (shorter and longer term).</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p>

On the 27th June 2019, the UK became the first major economy in the world to pass legislation requiring the government to reduce all nations of the UK's net emissions of greenhouse gases by 100% relative to 1990 levels by 2050 which would make the UK a "net zero" emitter. This is achieved by striking a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere. Reaching this goal achieves the ambition of the Paris Agreement which is to hold global average temperature increase to "well below 2°C" above preindustrial levels.

Document Reference	Existing Teacher Training Practice in NI	NI Strategy Recommendations
<p>The combined effect of UK & global climate action on UK economic growth is likely to be relatively small. The scale, distribution and balance of new growth opportunities and challenges will depend on how the economy and policy responds to the changes required. (p. 3)</p> <p>Employment opportunities in green industries will emerge</p> <p>The net impact of the transition will depend on...the flexibility of the labour market to match vacancies with the necessary skills. Government policy will need to continue to respond to this, ensuring levelling up across the country.</p> <p>Sectoral and structural impacts of the transition are likely to be significant regardless of the net impact (p 25)</p> <p>Regardless of the magnitude and direction of aggregate economy-wide impacts, the transition will lead to significant</p>	<p>PRIMARY</p> <p><i>As contributors to the economy and the environment</i></p> <p>Employability</p> <p>use critical and creative thinking to solve problems and make decisions</p> <p>develop literacy, numeracy and ICT skills</p> <p>develop their aptitudes, abilities and creativity</p> <p>be willing to expand their learning and performance throughout their lives</p>	<p>NGOs could support vocational courses and apprenticeships offered by post primary schools</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p> <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.</p>

changes in the structure of the economy. This will have knock on impacts on sectors, jobs and regions.

work independently and as a member of a team

develop perseverance, initiative and flexibility

be willing to take calculated risks when appropriate

identify the main reasons why people set up their own business.

Economic Awareness

develop an awareness of some environmental issues

<p>The costs of the transition to net zero are uncertain and depend on policy choices (p. 4)</p> <p>[the costs are] affected by a range of factors...[including] changes in behaviour</p>	<p>PRIMARY</p> <p><i>As Contributors to Society</i></p> <p>Media Awareness</p> <p>be aware of, and use, information available to us through all sorts of media</p> <p>become aware of the potential impact of media in influencing our personal views, choices and decisions</p> <p>Ethical Awareness</p> <p>become aware of the imbalances in the world around us, at both a local and a global level</p> <p>become aware of the potential impact of developments upon the lives of others.</p>	<p>Opportunities to appreciate and connect with nature, promoting a sense of awe and wonder in the natural world</p> <p>Showing the value of nature for its intrinsic worth and its uniqueness in our known universe</p> <p>Expanding on the most common EfS engagements (recycling and biodiversity) by introducing other areas and actions that support sustainability</p> <p>Highlight the benefits of connecting with nature and its contribution to wellbeing through experience</p> <p>Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement</p> <p>Include knowledge and understanding of:</p> <ul style="list-style-type: none"> Opportunities to mitigate the climate and ecological crisis Sustainability, the environment and ecology <p>Connect personal wellbeing to planetary wellbeing</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems</p> <p>Encourage self/group generated ideas to meet local, national and planetary challenges</p> <p>Teach and model:</p> <ul style="list-style-type: none"> Viewing the world through more than just an anthropocentric lens Frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p>
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<p>Government needs to use a mix of policy levers to address multiple market failures (p. 4)</p> <p>The most important market failure to address is the negative externality associated with the emission of greenhouse gases, but there are many others holding back the transition to net zero, including inertia and lack of information.</p>	<p>PRIMARY</p> <p><i>As contributors to the economy and the environment</i></p> <p>Education for Sustainable Development</p> <p>appreciate the environment and their role in maintaining and improving it</p> <p>understand how actions can affect the environment</p>	<p>Online EfS searchable resource⁴⁶ which:</p> <ul style="list-style-type: none"> Shares Teacher professional learning opportunities Provides up-to-date communications in response to current events Offers curricular materials and lesson plans⁴⁷ (including bite-sized lessons ideas)⁴⁸ Showcases “green” careers and employment Highlights vocational opportunities and apprenticeships includes NGOs providing EfS work synopsis of their educational offers signposting relevant work ESDF Web version newsletter (promoted on the searchable database and social media) Identify and promote EfS good practice indicators using local case studies
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⁴⁶ This one-stop-hub should make it easily navigable e.g., it could include filters making it simple for educators to search for resources that are relevant to their age range, subject etc. (see www.globaldimension.org).

⁴⁷ Use of copyable printable worksheets etc. should be discouraged

⁴⁸ All activities should be grounded in best practice as evidenced in research

		<p>Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement.</p> <p>This local engagement could provide valuable real-world opportunities for getting involved and taking action for change</p> <p>Include knowledge and understanding of:</p> <p>Opportunities to mitigate the climate and ecological crisis</p> <p>Sustainability, the environment and ecology</p> <p>The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas</p> <p>Include case examples of sustainable practice as an individual, group, community and nation</p> <p>Consider hosting online info sessions for local action groups to provide teachers with live case studies e.g., Save Our Sperrins, Zero Waste and Stop the Incinerator</p> <p>Promote young people's participation by:</p> <p>showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes.</p> <p>Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other</p> <p>Linking to children and young people in other parts of the UK, Ireland and the wider world</p>
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<p>6 Households are exposed to the transition through their consumption, labour market participation and asset holdings. Government needs to consider these patterns of exposure in designing policies for the transition (p. 5)</p> <p>Different types of households have different consumption levels...higher income households consume more carbon in absolute terms, but lower income households tend to consume more carbon relative to their income, and households in <u>Northern Ireland tend to have larger carbon footprints due to a higher prevalence of oil heated housing.</u></p> <p><u>The government is committed to providing support for the creation of jobs in new reen indstries.</u></p>	<p>PRIMARY</p> <p><i>As contributors to society</i></p> <p>Ethical Awareness</p> <p>become aware of the imbalances in the world around us, at both a local and a global level</p> <p>become aware of the potential impact of developments upon the lives of others.</p> <p><i>As contributors to the economy and the environment</i></p> <p>Education for Sustainable Development</p> <p>understand how actions can affect the environment</p>	<p>Online EfS searchable resource⁴⁹ which:</p> <p>Showcases “green” careers and employment</p> <p>Highlights vocational opportunities and apprenticeships</p> <p>Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement.</p> <p>This local engagement could provide valuable real-world opportunities for getting involved and taking action for change</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA’s School Development Service to offer courses on for example ‘How to Teach Sustainability in the classroom’, ‘Connecting Personal well-being to planetary well-being,’ ‘Climate literacy’, ‘Futures Thinking’ etc. NGO’s expertise could assist with this design and delivery.</p> <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p>
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<p>Competitiveness (p. 25)</p> <p>One would expect the UK's opportunities to be aligned with is <u>economic strengths as a world-leading knowledge economy</u>, with a global financial services sector and advantages in renewable energies such as offshore wind engineering services. <u>The UK's ability to take advantage of these opportunities will be partly determined by the effective use of public policy</u>, which can support the transition of important sectors and create an attractive environment for investment and innovation.</p>	<p>PRIMARY</p> <p>As Individuals</p> <p>Moral Character</p> <p>develop an awareness of how their actions can affect others</p> <p>understand that values, choices and decisions should be informed by a sense of fairness;</p> <p><i>As contributors to society</i></p> <p>Ethical Awareness</p> <ul style="list-style-type: none"> • become aware of the imbalances in the world around us, at both a local and a global level; • become aware of the potential impact of developments upon the lives of others. <p><i>As contributors to the economy and the environment</i></p> <p>Education for Sustainable Development</p> <p>appreciate the environment and their role in maintaining and improving it;</p>	<p>Exploit current opportunities in the political arena, to activate support for climate justice such as:</p> <p>Net Zero Green New Deal NI Climate Bill Covid 19 pandemic</p> <p>the drive for circular economies systems reset. COP26</p> <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p> <p>Offer the opportunity for a more amplified voice for public awareness and engagement campaigns (and should become the norm in the sector)</p> <p>Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.</p>
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<p>Facilitative levers (49)</p> <p>Leadership: <u>Government leadership in decarbonisation can range from political commitments to environmental requirements for government procurement decisions.</u></p> <p>Awareness: Measures to improve information about low carbon choices can help drive consumer and producers towards alternative products. Examples include information and educational campaigns.... mandating improved labelling to help drive consumer and producer choices</p>	<p>PRIMARY</p> <p><i>As contributors to society</i></p> <p>Citizenship</p> <p>become aware of some of the issues and problems in society</p> <p>contribute to creating a better world for those around them</p> <p>Ethical Awareness</p> <p>become aware of the imbalances in the world around us, at both a local and a global level</p> <p>become aware of the potential impact of developments upon the lives of others.</p> <p><i>As contributors to the economy and the environment</i></p> <p>Economic Awareness</p> <p>interpret information in order to make informed choices as consumers</p> <p><i>As contributors to the economy and the environment</i></p> <p>Education for Sustainable Development</p> <p>appreciate the environment and their role in maintaining and improving it;</p>	<p>The NIEL coalition can encourage its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy</p> <p>Exploit current opportunities in the political arena, to activate support for climate justice such as:</p> <p>Net Zero Green New Deal NI Climate Bill Covid 19 pandemic the drive for circular economies systems reset. COP26</p> <p>Support teachers to see how Efs is integral across the curriculum and how it can progress throughout a child's journey through formal education.</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p> <p>Offer training and resources to ensure teaching staff are 'carbon literate' and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK's Climate Commission for Higher Education (2020).</p> <p>Promote young people's participation by:</p> <p>showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes. Creating a space for children and young people involved in Efs have regular opportunities to come together more informally to learn from each other Linking to children and young people in other parts of the UK, Ireland and the wider world</p> <p>Offer the opportunity for a more amplified voice for public awareness and engagement campaigns (and should become the norm in the sector)</p> <p>Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.</p>
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<p>Facilitative levers (49)</p> <p>Capability: New skills, new technologies and ideas will be needed to reach net zero. This may require training programmes.....(p50)</p>	<p>PRIMARY</p> <p><i>As individuals</i></p> <p>Personal and Mutual Understanding</p> <p>develop self-confidence, self-esteem and self-discipline</p> <p>understand their own and others' feelings and emotions</p> <p>develop the ability to talk about how they feel</p> <p>develop their motivation to learn and their individual creative potential</p> <p>listen to and interact positively with others</p> <p>explore and understand how others live</p> <p><i>As contributors to the economy and environment</i></p> <p>Employability</p> <p>develop literacy, numeracy and ICT skills</p> <p>develop their aptitudes, abilities and creativity</p> <p>be willing to expand their learning and performance throughout their lives</p> <p>work independently and as a member of a team</p> <p>develop perseverance, initiative and flexibility</p> <p>be willing to take calculated risks when appropriate</p> <p>use critical and creative thinking to solve problems and make decisions</p> <p>identify the main reasons why people set up their own business.</p>	<p>Support teachers to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p> <p>Link new and existing educational material to the provision in the NI curriculum, highlighting relevant:</p> <p>key stages</p> <ul style="list-style-type: none"> areas of learning cross curricular skills thinking skills and personal capabilities and attitudes and dispositions connected learning opportunities <p>Develop resources and activities for KS1, 3 and 4. (KS2 is well catered for!)</p> <p>Seek advice from the ESDF for guidance on how to adapt or connect their materials to the curriculum</p> <ul style="list-style-type: none"> Creation of resource or adaptation of resources to suit different Key Stages and linked to topic work in Primary or different subjects at post primary and tertiary levels
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On the 27th June 2019, the UK became the first major economy in the world to pass legislation requiring the government to reduce all nations of the UK's net emissions of greenhouse gases by 100% relative to 1990 levels by 2050 which would make the UK a "net zero" emitter. This is achieved by striking a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere. Reaching this goal achieves the ambition of the Paris Agreement which is to hold global average temperature increase to "well below 2°C" above preindustrial levels.

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	<p>critically examine how wealth is created and distributed;</p> <p>make balanced and informed economic judgements;</p>	
<p>The costs of the transition to net zero are uncertain and depend on policy choices (p. 4)</p> <p>[the costs are] affected by a range of factors...[including] changes in behaviour</p>	<p>POST PRIMARY KS 3</p> <p><i>As an individual</i></p> <p>Personal understanding</p> <p>respect themselves, understand their rights and responsibilities</p> <p>learn how to learn and be committed to learning</p> <p>be aware of their creative potential; and become self-reliant.</p> <p>Mutual Understanding</p> <p>respect and co-operate with others</p> <p>manage and resolve conflict</p> <p>contribute positively to their peer group</p> <p>Moral Character</p> <p>show fairness and integrity in dealing with others</p> <p>be reliable and committed to tasks</p> <p>take responsibility for choices and actions</p> <p>Spiritual Awareness</p> <p>develop an inner appreciation of life purpose; and develop the personal strengths and resources to cope with adversity</p>	<p>Opportunities to appreciate and connect with nature, promoting a sense of awe and wonder in the natural world</p> <p>Showing the value of nature for its intrinsic worth and its uniqueness in our known universe</p> <p>Expanding on the most common EfS engagements (recycling and biodiversity) by introducing other areas and actions that support sustainability</p> <p>Highlight the benefits of connecting with nature and its contribution to wellbeing through experience</p> <p>Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement</p> <p>Include knowledge and understanding of: Opportunities to mitigate the climate and ecological crisis Sustainability, the environment and ecology</p> <p>Connect personal wellbeing to planetary wellbeing</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems</p> <p>Encourage self/group generated ideas to meet local, national and planetary challenges</p>

	<p><i>As a contributor to society</i></p> <p>Citizenship</p> <p>recognise the interdependence of people, communities and the environment</p> <p>negotiate and compromise</p> <p>Ethical awareness</p> <p>assess the human and environmental impact of ethical choices and take action as appropriate</p> <p><i>As a contributor to the economy and the environment</i></p> <p>Employability</p> <p>be proactive, enterprising, adaptable and open to new ideas</p> <p>Economic awareness</p> <p>Critically examine how wealth is created and distributes</p> <p>make balance and informed economic judgements</p> <p>be discerning and effective consumers; and</p> <p>plan and manage personal finances effectively.</p> <p>Education for sustainable development</p>	<p>Teach and model: Viewing the world through more than just an anthropocentric lens Frame our ability to meet the climate and ecological challenges as achievable – be cautious of exacerbating climate/eco-anxiety</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being', 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p>
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<p>Government needs to use a mix of policy levers to address multiple market failures (p. 4)</p> <p>The most important market failure to address is the negative externality associated with the emission of greenhouse gases, but there are many others holding back the transition to net zero, including inertia and lack of information.</p>	<p>POST PRIMARY KS 3</p> <p><i>As a contributor to society</i></p> <p>Citizenship</p> <p>negotiate and compromise</p> <p>use democratic means to influence change; and contribute to the welfare of school, the community and the environment</p> <p>Media awareness</p> <p>assess the role and influence of media within society</p> <p>Ethical awareness</p> <p>be aware of some of the dilemmas arising from scientific technological and environmental change</p> <p>assess the human and environmental impact of ethical</p>	<p>Online EfS searchable resource⁵⁰ which:</p> <ul style="list-style-type: none"> Shares Teacher professional learning opportunities Provides up-to-date communications in response to current events Offers curricular materials and lesson plans⁵¹ (including bite-sized lessons ideas)⁵² Showcases “green” careers and employment Highlights vocational opportunities and apprenticeships includes NGOs providing EfS work synopsis of their educational offers signposting relevant work ESDF Web version newsletter (promoted on the searchable database and social media) Identify and promote EfS good practice indicators using local case studies <p>Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement.</p> <p>This local engagement could provide valuable real-world opportunities for getting involved and taking action for change</p> <p>Include knowledge and understanding of:</p> <ul style="list-style-type: none"> Opportunities to mitigate the climate and ecological crisis Sustainability, the environment and ecology The United Nations Sustainable Development Goals as a map for connecting EfS education in all curricular areas
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⁵¹ Use of copyable printable worksheets etc. should be discouraged

⁵² All activities should be grounded in best practice as evidenced in research

	<p>choices and take action as appropriate.</p> <p><i>As a contributor to the economy and environment</i></p> <p>economic awareness</p> <p>Make balance and informed economic judgements</p> <p>Education for Sustainable Development</p> <p>understand the interdependence of society, the economy and the environment</p> <p>develop respect for the needs of both present and future generations</p> <p>demonstrate how action can help improve the quality of life for people, locally and globally</p> <p>exercise environmental responsibility through conservation of resources, waste management and promotion of local and global biodiversity.</p>	<p>Include case examples of sustainable practice as an individual, group, community and nation</p> <p>Consider hosting online info sessions for local action groups to provide teachers with live case studies e.g., Save Our Sperrins, Zero Waste and Stop the Incinerator</p> <p>Promote young people's participation by:</p> <p>showcasing achievements with a 'Power to the Pupil' type event providing 'peer learning', sharing of best practice and learning from mistakes.</p> <p>Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other</p> <p>Linking to children and young people in other parts of the UK, Ireland and the wider world</p>
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<p>6 Households are exposed to the transition through their consumption, labour market participation and asset holdings. Government needs to consider these patterns of exposure in designing policies for the transition (p. 5)</p> <p>Different types of households have different consumption levels...higher income households consume more carbon in absolute terms, but lower income households tend to consume more carbon relative to their income, and households in <u>Northern Ireland tend to have larger carbon footprints due to a higher prevalence of oil heated housing.</u></p> <p><u>The government is committed to providing support for the creation of jobs in new green industries.</u></p>	<p>POST PRIMARY KS 3 <i>As a contributor to society</i> Ethical awareness be aware of some of the dilemmas arising from scientific, technological and environmental change - assess the human and environmental impact of ethical choices and take action as appropriate.</p> <p><i>As a contributor to the economy and environment</i> Employability be aware of the impact of technology and global markets on work patterns and prospects; be proactive, enterprising, adaptable and open to new ideas</p> <p>enhance career options through life-long learning; and be aware of the rights of workers and employers.</p> <p>Economic awareness Make balance and informed economic judgements</p> <p>Education for sustainable development understand the interdependence of society, the economy and the environment</p> <p>develop respect for the needs of both present and future generations</p> <p>demonstrate how action can help improve the quality of life for people, locally and globally</p>	<p>Online EfS searchable resource⁵³ which: Showcases “green” careers and employment</p> <p>Highlights vocational opportunities and apprenticeships</p> <p>Develop opportunities to educate for sustainability using local case examples which provide children and young people with hands on, up close and personal engagement. This local engagement could provide valuable real-world opportunities for getting involved and taking action for change</p> <p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA’s School Development Service to offer courses on for example ‘How to Teach Sustainability in the classroom’, ‘Connecting Personal well-being to planetary well-being,’ ‘Climate literacy’, ‘Futures Thinking’ etc. NGO’s expertise could assist with this design and delivery.</p> <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p>
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	exercise environmental responsibility through conservation of resources, waste management and promotion of local and global biodiversity	
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<p>Competitiveness (p. 25)</p> <p>One would expect the UK's opportunities to be aligned with its <u>economic strengths as a world-leading knowledge economy</u>, with a global financial services sector and advantages in renewable energies such as offshore wind engineering services. <u>The UK's ability to take advantage of these opportunities will be partly determined by the effective use of public policy</u>, which can support the transition of important sectors and create an attractive environment for investment and innovation.</p>	<p>Post Primary KS 3 <i>As a contributor to society</i> Citizenship Use democratic means to influence change</p> <p><i>As a contributor to the economy and environment</i> Education for sustainable development understand the interdependence of society, the economy and the environment</p> <p>develop respect for the needs of both present and future generations</p> <p>demonstrate how action can help improve the quality of life for people, locally and globally; and exercise environmental responsibility through conservation of resources, waste management and promotion of local and global biodiversity.</p>	<p>Exploit current opportunities in the political arena, to activate support for climate justice such as:</p> <p>Net Zero Green New Deal NI Climate Bill Covid 19 pandemic</p> <p>the drive for circular economies systems reset. COP26</p> <p>Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.</p> <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p> <p>Offer the opportunity for a more amplified voice for public awareness and engagement campaigns (and should become the norm in the sector)</p> <p>Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.</p>
<p>Sectoral and structural impacts of the transition are likely to be significant regardless of the net impact (p 25)</p>	<p>POST PRIMARY KS 3 <i>As a contributor to the economy and environment</i> Employability</p>	<p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p>

<p>Regardless of the magnitude and direction of aggregate economy-wide impacts, the transition will lead to significant changes in the structure of the economy. <u>This will have knock on impacts on sectors, jobs and regions.</u></p>	<p>be aware of the impact of technology and global markets on work patterns and prospects</p> <p>be proactive, enterprising, adaptable and open to new ideas</p> <p>enhance career options through life-long learning; and be aware of the rights of workers and employers.</p>	<p>Present ideas for solutions and opportunities for action, alongside real-life examples of potential answers to current problems.</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,' 'Climate literacy', 'Futures Thinking' etc. NGO's expertise could assist with this design and delivery.</p>
<p>Facilitative levers (49)</p> <p>Leadership: <u>Government leadership in decarbonisation can range from political commitments</u> to environmental requirements for government procurement decisions.</p> <p>Awareness: Measures to improve information about low carbon choices can help drive consumer and producers towards alternative products. Examples include information and educational campaigns....mandating improved labelling to help drive consumer and producer choices</p> <p>Capability: New skills, new technologies and ideas will be needed to reach net zero. This may require training programmes.....(p50)</p>	<p>POST PRIMARY KS 3</p> <p><i>As a contributor to society</i></p> <p>Citizenship</p> <p>use democratic means to influence change</p> <p><i>As a contributor to the economy and environment</i></p> <p>Employability</p> <p>be proactive, enterprising, adaptable and open to new ideas;</p> <p>Education for sustainable development</p> <p>understand the interdependence of society, the economy and the environment</p>	<p>The NIEL coalition can encourage its membership to call for cooperation towards sustainability recognising that behavioural change requires individual actions to be backed up by policy.</p> <p>Advise and support formal education authorities (CCEA) in the development of new accredited courses focused on sustainability and climate issues from Key stage 4 and above.</p> <p>Exploit current opportunities in the political arena, to activate support for climate justice such as:</p> <p>Net Zero Green New Deal NI Climate Bill Covid 19 pandemic</p> <p>the drive for circular economies systems reset. COP26</p> <p>Support teachers to see how EfS is integral across the curriculum and how it can progress throughout a child's journey through formal education.</p> <p>Collaborate with universities involved in teacher education and professional learning delivered via the EA's School Development Service to offer courses on for example 'How to Teach Sustainability in the classroom', 'Connecting Personal well-being to planetary well-being,'</p>

	<p>develop respect for the needs of both present and future generations</p> <p>demonstrate how action can help improve the quality of life for people, locally and globally; and</p> <p>exercise environmental responsibility through conservation of resources, waste management and promotion of local and global biodiversity.</p> <p><i>As a contributor to society</i></p> <p>Ethical awareness</p> <p>be aware of some of the dilemmas arising from scientific, technological and environmental change; and</p> <p>assess the human and environmental impact of ethical choices and take action as appropriate.</p>	<p>‘Climate literacy’, ‘Futures Thinking’ etc. NGO’s expertise could assist with this design and delivery.</p> <p>Offer training and resources to ensure teaching staff are ‘carbon literate’ and have an understanding of the United Nations Sustainable Development Goals, as recommended by the UK’s Climate Commission for Higher Education (2020).</p> <p>Provide insights into future skills, green jobs and the increasing potential for careers in the sustainable development and environmental sectors. This could be achieved through attending school and university careers days and through information on-line. Links with business could be used to support this.</p> <p>Promote young people’s participation by:</p> <p>showcasing achievements with a ‘Power to the Pupil’ type event providing ‘peer learning’, sharing of best practice and learning from mistakes.</p> <p>Creating a space for children and young people involved in EfS have regular opportunities to come together more informally to learn from each other</p> <p>Linking to children and young people in other parts of the UK, Ireland and the wider world</p> <p>Offer the opportunity for a more amplified voice for public awareness and engagement campaigns (and should become the norm in the sector)</p> <p>Actively support and encourage involvement in national campaign action groups, e.g., Teach the Future, Fridays For Future (school climate strikes) Parents for Future etc.</p>
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