



## Nature Recovery Networks – Northern Ireland Curriculum Key Stage 3 Links

The overarching aim of the NI Curriculum at Key Stage 3 is to ‘to promote the spiritual, emotional, moral, cultural, intellectual and physical development of pupils at the school and thereby of society; and prepare pupils for the opportunities, responsibilities and experiences of life by equipping them with appropriate knowledge, understanding and skills.’

The curriculum objectives state that the Northern Ireland Curriculum should provide learning opportunities for each young person to develop as an individual; as a contributor to society; and as a contributor to the economy and the environment.

Suggestions as to how the topic of Nature Recovery Networks may be linked with these objectives are proposed in the table below.

**Table 1. Nature Recovery Networks links to NI Curriculum Objectives**

As an individual	As a contributor to society	As a contributor to the economy and the environment
<p><b>Personal understanding</b></p> <ul style="list-style-type: none"> <li>Understand our right to nature and how we can all act responsibly to protect and help nature to recover.</li> </ul> <p><b>Mutual understanding</b></p> <ul style="list-style-type: none"> <li>Achieving ecological recovery and sustainability by establishing NRNs must also meet the needs of people.</li> <li>To do so we must respect and co-operate with others and be able to manage and resolve conflict</li> </ul> <p><b>Personal health</b></p> <ul style="list-style-type: none"> <li>Access to good quality green and blue spaces supports our physical and mental well-being</li> </ul> <p><b>Moral character</b></p> <ul style="list-style-type: none"> <li>We take responsibility for our choices and actions and how these can impact on nature</li> </ul> <p><b>Spiritual awareness</b></p> <ul style="list-style-type: none"> <li>Developing an inner appreciation of nature</li> <li>Developing the personal strengths and resources to cope with adversity – NRNs provide a positive solution to help address the climate and biodiversity crises</li> </ul>	<p><b>Citizenship</b></p> <p>As a way to achieve ecological recovery and sustainability that also meets people’s needs, NRNs provide an excellent learning opportunity to help pupils to:</p> <ul style="list-style-type: none"> <li>respect the equal rights of others;</li> <li>recognise the interdependence of people, communities and the environment;</li> <li>negotiate and compromise.</li> </ul> <p>The potential for pupils to take advocacy and practical action could provide an opportunity to help pupils to:</p> <ul style="list-style-type: none"> <li>use democratic means to influence change; and</li> <li>contribute to the welfare of school, the community and the environment.</li> </ul> <p><b>Cultural understanding</b></p> <p>NRNs can help pupils to recognise that the use of our land and seas can be related to our cultures and values. This can provide a learning opportunity to help pupils to:</p> <ul style="list-style-type: none"> <li>recognise the richness and diversity of cultural influences in contemporary society.</li> </ul> <p><b>Ethical awareness</b></p> <p>NRNs provide an excellent learning opportunity to help pupils to:</p> <ul style="list-style-type: none"> <li>be aware of some of the dilemmas arising from scientific, technological and environmental change, for example the multiple demands placed on land and seas; and</li> <li>assess the human and environmental impact of ethical choices and take action as appropriate.</li> </ul>	<p><b>Employability</b></p> <ul style="list-style-type: none"> <li>awareness of NRNs and the environment sector in Northern Ireland can help pupils to better understand their career options</li> <li>Understanding of this emerging approach and principles of the environment sector supporting employability.</li> </ul> <p><b>Economic awareness</b></p> <p>As long-term ecological sustainability requires economic and social sustainability also, NRNs can help pupils to:</p> <ul style="list-style-type: none"> <li>understand the economic interdependence of individuals, organisations and communities locally and globally;</li> <li>critically examine how wealth is created and distributed;</li> <li>make balanced and informed economic judgements;</li> <li>be discerning and effective consumers.</li> </ul> <p><b>Education for sustainable development</b></p> <p>As a way to share and protect the resources of the planet for now and future generations, NRNs provide an excellent learning opportunity to help pupils to:</p> <ul style="list-style-type: none"> <li>understand the interdependence of society, the economy and the environment;</li> <li>develop respect for the needs of both present and future generations;</li> <li>demonstrate how action can help improve the quality of life for people, locally and globally; and</li> <li>exercise environmental responsibility through conservation of resources, waste management and promotion of local and global biodiversity.</li> </ul>

## Areas of Learning: Science, Geography and History and NRN Links

Areas of Learning where it is suggested that NRNs can be directly linked:

Areas of Learning	Contributory Subject Strands
<b>Environment and Society</b>	History Geography
<b>Science and Technology</b>	Science

Relevant statutory requirements have been selected and are set out in bold under Knowledge, Understanding and Skills in column 1. Relevant statutory requirements have been selected and are set out in bold under the Curriculum Objectives and Key Elements in columns 2, 3 and 4. Relevant additional non-statutory guidance and suggestions have been selected and are set out in plain text and italics.

Suggestions made by ESDF for linkages which may not be immediately apparent are in blue text.

Key Stage 3 Age 11 - 14	Developing pupils' Knowledge, Understanding and Skills	(Objective 1) Developing pupils as Individuals  Pupils should have opportunities to:	(Objective 2) Developing pupils as Contributors to Society  Pupils should have opportunities to:	(Objective 3) Developing pupils as Contributors to the Economy and the Environment  Pupils should have opportunities to:
<b>Science</b>	<p>Pupils should have opportunities to...learn about:</p> <p>Organisms and Health Interdependence of plants and animals</p> <p>Earth and Universe The environment and human influences</p>	<p>Explore issues related to Spiritual Awareness Develop a sense of wonder about the universe, for example, the complexity, diversity, and interdependence of living things. (Key Element: Spiritual Awareness)</p>		<p>Identify how skills developed through science will be useful to a wide range of careers, for example, environmental management, food and farming (Key Element: Employability)</p> <p>Investigate the effects of pollution, for example, water, air, land, sound etc. and specific measures to improve and protect the environment, for example, renewable energy, efficient use of resources, waste minimisation, etc.</p> <p>Explore the importance of biodiversity, how it impacts on our lives and how it is affected by human activity.</p> <p>Investigate what can be done to conserve and promote biodiversity, for example, school wildlife gardens/ wilderness areas, anti-pollution strategies, habitat management, etc. (Key Element: Education for Sustainable Development)</p>

<p><b>Geography</b></p>	<p>Pupils should have opportunities, through the contexts opposite, to: develop geographical skills to interpret spatial patterns including atlas and map-work skills; develop enquiry and fieldwork skills—questioning, planning, collecting, recording, presenting, analysing, interpreting information and drawing conclusions relating to a range of primary and secondary sources; develop critical and creative thinking skills to solve geographical problems and make informed decisions;</p> <p>develop a sense of place through the study of: range of local, national, European and global contexts; contrasting physical and human environments; issues of topical significance;</p> <p>in order to develop an understanding of: physical processes of landscape development; the interrelationships between physical and human environments; the dynamic nature of physical and human environments; the ways in which places are interdependent; the need for social, economic and environmental change to be sustainable.</p>	<p>Explore issues related to Spiritual Awareness Respond to the diversity and beauty of the natural and human world. Reflect on their experiences of a visit to a dramatic landscape, for example, create a presentation about a personally inspiring environment or feature. (Key Element: Spiritual Awareness)</p>	<p>Develop an understanding of how people in different places interact with their environment, for example, contrast how people from different parts of the world adapt to threats/ opportunities posed by their environments (physical, social, economic). (Key Element: Cultural Understanding) NRNs as a response to threats from biodiversity and climate crises.</p> <p>Explore issues related to Media Awareness Investigate the causes and consequences of an environmental event making the news and evaluate how it is reported in the media. Create a video/news-bulletin to inform about, for example, an earthquake, volcano, extreme weather event, local pollution incident, etc. (Key Element: Media Awareness) NRNs as a response to threats from biodiversity and climate crises, and how this is reported in the media.</p>	<p>Investigate how the skills developed through Geography will be useful to a range of careers, for example, jobs involving charting and mapping, data handling, educating, marketing, planning, resource or environmental management, report-writing, surveying, tourism, transportation, weather forecasting, etc. (Key Element: Employability) NRN National habitat network maps, spatial planning to identify best sites for wildlife, and how to restore and join up these areas</p> <p>Investigate how physical processes operate to create distinct and diverse environments, for example, Marble Arch caves, The Mourne, The Giant’s Causeway, local peatlands, The Burren...</p> <p>Investigate the impact of conflict between social, economic and environmental needs, both locally and globally for example, erosion, flooding, pollution, loss of biodiversity, climate change, desertification, deforestation, etc.</p> <p>Explore how we can exercise environmental stewardship and help promote a better quality of life for present and future generations, both locally and globally, for example, sustainable classrooms, eco-schools, Citizenship Action Projects, resource and waste management strategies, promotion of geo- and biodiversity, sustainable towns/cities, conservation of natural resources, eco-tourism, Fair Trade, etc. (Key Element: Education for Sustainable Development)</p> <p>Explore issues related to Economic Awareness Investigate the impact of globalisation and how it has produced winners and losers, for example, impact on a N. Ireland business/industry (Key Element: Economic Awareness) E.g. Agriculture, Forestry, Aquaculture in NI, economic and environmental impacts. NRN as one response to balance multiple demands on our resources.</p>
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<p><b>History</b></p>	<p>Pupils should have opportunities to:  investigate the past and its impact on our world today through an understanding of: different perspectives and interpretations; cause and effect; continuity and change; progression and regression;</p> <p>and by developing:  the enquiry skills to undertake historical investigations;  critical thinking skills to evaluate a range of evidence and appreciate different interpretations;  creative thinking skills in their approach to solving problems and making decisions;  chronological awareness and the ability to make connections between historical periods, events and turning points;  an ability to challenge stereotypical, biased or distorted viewpoints with appropriately sensitive, informed and balanced responses;</p> <p>through a broad and balanced range of:  historical periods;  Irish, British, European and global contexts;  significant political, social, economic, cultural and religious development.</p>			<p>Investigate the need to preserve history in the local and global environment, for example, <i>visit an important historical site and evaluate the measures taken to preserve it; create the case for a local building or site to be preserved.</i></p> <p>Explore the contribution of heritage tourism to society, the economy and the environment.</p> <p>Evaluate the environmental impact of wars or industrial revolution.  <b>(Key Element: Education for Sustainable Development)</b></p> <p>NRN as an approach to achieve ecological sustainability in today's fragmented environment, to preserve our natural heritage.</p> <p>Preservation of built heritage and NRN delivery as mutually beneficial.</p> <p>Explore issues related to Economic Awareness  Investigate the changing nature of local and global economies over time.  <b>(Key Element: Economic Awareness)</b></p> <p>NRN as an approach to achieve ecological sustainability in today's fragmented environment, whilst ensuring economic sustainability of e.g. agriculture.  Protecting biodiversity to protect economic prosperity.</p>
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**At Key Stage 4:** Statutory requirements through the Key Stage 4 entitlement framework must be delivered to promote, among other things, the relevance of learning to everyday life and work, (**Learning for Life and Work, LLW**). The study of NRNs links in here with Citizenship, Employability and Education for Sustainable Development. The main learning area where NRNs link at Key Stage 4 is **Science**.

Science
Entry Level Science Plants and Ecology
GCSE Single Award Science Biology
GCSE Double Award Science Cells, living processes and biodiversity
GCSE Biology Cells Photosynthesis and Plants Ecological relationships and energy flow Variation and natural selection Osmosis and Plant Transport
GCSE Agriculture and Land Use Soils, crops and habitats Animals on the Land

#### References:

<sup>1</sup> CCEA, (2007), The Statutory Curriculum at Key Stage 3, Rationale and Detail, available at <https://ccea.org.uk/downloads/docs/ccea-asset/Curriculum/The%20Statutory%20Curriculum%20at%20Key%20Stage%203.pdf#page=45>

<sup>2</sup> CCEA, (2022), Science and Technology Progression Pathway, available at <https://uk.ccea.org.uk/learning-resources/progression-pathways>