



**Primary**  
**Awards for**  
**Green**  
**Education in**  
**Schools**



**Northern Ireland Curriculum: Primary**

**ypte**  
young people's trust  
for the environment



## Important note:

This Guide provides teachers with some starting ideas for projects that could be used to enter the Primary Awards for Green Education in Schools and shows how they can be linked with the Northern Ireland Curriculum (Key Stages 1 & 2). It is not in any way intended to be prescriptive. There are many other opportunities to take part in the Awards and meet the objectives of the Northern Ireland Curriculum. The only limits are your and your pupils' imagination and enthusiasm. We look forward to seeing lots of amazing ideas and work being entered into the Awards in future!

Please be advised that the priority when judging project entries is that they contain examples of the **students' own work**.

You can download all of the supporting documents for the Primary Awards for Green Education in Schools from <https://primaryawards4greeneducation.org.uk>

The Young People's Trust for the Environment's website is a great source of environmental information for both teachers and children. You can find it at <https://yppte.org.uk/>

Teachers requiring further assistance should contact the Young People's Trust for the Environment on 01935 315025 or [info@yppte.org.uk](mailto:info@yppte.org.uk).

# NORTHERN IRELAND CURRICULUM: LANGUAGE & LITERACY

## PROJECT SUGGESTIONS

### Class Debate

This could be held on a number of topical environmental issues, such as renewable vs non-renewable energies, climate change, whaling or badger culling. Pupils should articulate and justify answers, arguments and opinions. Debates could take place as role-plays, with participants playing the part of members of the public, representatives of companies, environmentalists etc. The debate could be recorded as a video and submitted with background information and supporting examples of the pupils' work.

### Short Film or News Broadcast

This could focus on a topical environmental issue, such as deforestation, protecting endangered species, pollution or recycling. It should include key information and facts, as well as interviews with teachers/ parents/ pupils to find out people's views on the issue. Alternatively, it could document the activities and achievements of a school eco committee or gardening club.

### Research Project

Carry out research on a chosen environmental topic or issue. The pupils should write up their findings in their own words and acknowledge any reference books/ websites used. They should also consider the structure and organisation of their research project, possibly including a contents page and organising information into relevant sections.

### PowerPoint Presentation

Many project entries may be submitted as a PowerPoint presentation. Pupils should write the text for the slides themselves, choose appropriate images and, if possible, have a go at laying out the presentation themselves.

## CURRICULUM STATUTORY REQUIREMENTS (including cross-curricular links)

Many suggested projects are relevant for all year groups and can be tailored in their complexity to suit different ages/abilities.

### Talking and listening – Key Stage 1

- Participate in talking and listening in every area of learning.
- Listen to, respond to and explore stories, poems, songs, drama and media texts through the use of traditional and digital resources and recreate parts of them in a range of expressive activities.
- Express thoughts, feelings and opinions in response to personal experiences, imaginary situations, literature, media and curricular topics and activities.
- Present ideas and information with some structure and sequence.
- Devise and ask questions to find information in social situations and across the curriculum.

### Talking and listening – Key Stage 2

- Listen and respond to a range of fiction, poetry, drama and media texts through the use of traditional and digital resources.
- Participate in group and class discussions for a variety of cross curricular purposes.
- Share, respond to and evaluate ideas, arguments and points of view and use evidence or reason to justify opinions, actions, or proposals.
- Prepare and give a short oral presentation to a familiar group, showing an awareness of audience and including the use of multimedia presentations identify and ask appropriate questions to seek information, views and feelings

### The World Around Us - Interdependence

### Keeping a Journal

Write diary entries to document progress and achievement in environmental projects, such as the creation of a school allotment/garden or the work carried out by a school eco committee. Ideally, the journal should include photographs and/or pictures.

### Poetry

Compose a poem on an environmental theme. The class could compile an illustrated book that showcases their poetry.

### Designing Posters/ Leaflets

Design and produce posters and/or leaflets to communicate information and encourage action. This could be for circulation to pupils and parents for a school campaign e.g. anti-litter or recycling. Or it could be for wider circulation within the local area e.g. campaigning against the building of a new road that will endanger wildlife.

### Eco Drama

Write a script collaboratively and perform a short drama on an environmental issue (see above for topic ideas). Let us see your initial ideas, your script and ideally, film a performance.

### Letter / Newspaper Article

Write a letter to an identified (fictional or real) audience e.g. your local newspaper or MP about a **local environmental issue** that concerns you e.g.:

- The cutting down of a woodland
- The litter problem in a local park
- The building of a wind turbine
- A new housing proposal.

Give both sides of the argument and, if possible, visit your local area to gather evidence to use in your writing.

Or pupils may wish to write letters to politicians about a **national/global environmental issue** such as pollution in our oceans.

### Writing - Key Stage 1

- *Participate in modelled, shared, guided and independent writing, including composing on-screen.*
- *Talk about and plan what they are going to write.*
- *Write for a variety of purposes and audiences.*
- *Express thoughts, feelings and opinions in imaginative and factual writing.*
- *Organise, structure and present ideas and information using traditional and digital means;*
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### Writing -Key Stage 2

- *Participate in modelled, shared, guided and independent writing, including composing on-screen.*
- *Discuss various features of layout in texts and apply these, as appropriate, within their own writing.*
- *Write for a variety of purposes and audiences, selecting, planning and using appropriate style and form.*
- *Use the skills of planning, revising and redrafting to improve their writing, including that which they have composed digitally.*
- *Create, organise, re ne and present ideas using traditional and digital means, combining text, sound or graphics,*

<p>Alternatively, write a newspaper or magazine article based on the above.</p> <p><b>Fictional Narrative</b></p> <p>Write about a character who is involved with an environmental issue, such as:</p> <ul style="list-style-type: none"> <li>• A conservationist who is trying to save an endangered species.</li> <li>• A tribe that is trying to prevent their rainforest being cut down.</li> <li>• An inventor who has discovered a new clean source of energy.</li> <li>• Someone caught in a flood as a result of climate change.</li> </ul>	
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NORTHERN IRELAND CURRICULUM: MATHEMATICS & NUMERACY	
PROJECT SUGGESTIONS	CURRICULUM STATUTORY REQUIREMENTS (including cross-curricular links)
<p><b>Collect &amp; Organise Data Taken from Observation of the Natural World</b></p> <p>You may wish to carry out a <b>bird feeding experiment</b> and study the frequency of visits to a bird table or feeding station. Analysis might include:</p> <ul style="list-style-type: none"> <li>• Are birds influenced by colour of the food or time of day?</li> <li>• Which species visit the feeding station and how often?</li> <li>• Do the species or frequencies of visits change over time?</li> <li>• Do different birds prefer different foods?</li> </ul> <p>When data has been collected, think of different ways of compiling and displaying the results e.g. tables, pie charts, graphs.</p> <p>Alternatively, you may wish to carry out a <b>statistical analysis of litter on a beach</b> - types of litter and changes over the seasons (or even years if this is an annual activity). What can be done to address this problem?</p> <p><b>Create a Questionnaire</b></p>	<p><u>Many suggested projects are relevant for all year groups and can be tailored in their complexity to suit different ages/abilities.</u></p> <p><b>Handling Data – Key Stage 1</b></p> <ul style="list-style-type: none"> <li>• Sort and classify objects for one or two criteria and represent results using Venn, Carroll and Tree diagrams.</li> <li>• Collect data, record and present it using real objects, drawings, tables, mapping diagrams, simple graphs and ICT software.</li> <li>• Discuss and interpret the data.</li> <li>• Extract information from a range of charts, diagrams and tables.</li> <li>• Enter and access information using a database.</li> </ul> <p><b>The World Around Us - Interdependence</b></p> <p><b>Handling Data – Key Stage 2</b></p>

Create a questionnaire to collect people's opinions on a local environmental issue such as recycling, food miles, renewable vs. non-renewable energy. Think about ways to interpret and display the information collected.

### **Audit of Waste Disposal**

Carry out an audit of the class/school's habits with regard to waste disposal:

- In week 1, estimate how many items are thrown away in the course of each lunch break. Weigh how much is thrown away and how much is recycled.
- In week 2, everyone should make an effort to recycle more, throw less away and consider how food and snacks are packaged to try and reduce waste. Gather the same data as for week 1.
- Was there an improvement in week 2? If so, how could that improvement be sustained?

If carried out as a whole school initiative, this could also include activities such as poster/leaflet design to raise awareness or a presentation in assembly.

Alternatively, carry out an audit of **energy usage** or **water consumption** at home or at school. Results should be presented in tables/graphs/charts and the project could be written up as an investigation with introduction, method, results, conclusion etc. What solutions can pupils come up with to reduce energy or water usage?

### **Small Business Enterprise**

If your school has an allotment or vegetable/ flower garden and there is sufficient produce, could you start a small business? Pupils could sell vegetables/flowers to parents and/or the local community, perhaps using the school's website to run the scheme. They could be involved in working out costs, setting prices and calculating profits, as well as taking money and giving change to customers.

This project has potential to be highly cross-curricular with opportunities for the following:

- Gardening
- Website and logo design

- *Collect, classify, record and present data drawn from a range of meaningful situations, using graphs, tables, diagrams and ICT software.*
- *Explain their work orally and/or through writing and draw conclusions.*
- *Interpret a wide range of tables, lists, graphs and diagrams, create and interpret frequency tables, including those for grouped data.*
- *Design and use a data collection sheet, interpret the results, enter information in a database or spreadsheet, and interrogate and interpret the results.*
- *Understand, calculate and use the mean and range of a set of discrete data.*

### **The World Around Us – Interdependence and Mutual Understanding**

#### **Money – Key Stage 1**

- *Talk about the value of money and ways in which it could be spent, saved and kept safe.*

#### **Money – Key Stage 2**

- *Discuss the value of money, how to keep money safe, ways in which goods can be paid for and the need for budgeting.*

<ul style="list-style-type: none"> <li>• Marketing – posters and leaflets etc.</li> </ul> <p>There is also plenty of scope for widening the scope of this project e.g. could pupils devise healthy recipes, using the produce sold, to be available in a recipe book or on the website?</p>	<ul style="list-style-type: none"> <li>• <i>Be able to plan and think ahead in terms of saving and spending money, prioritise spending with a limited supply of money, understand how to access best buys.</i></li> </ul> <p><b>Language and Literacy – Talking and Listening, and Writing</b></p>
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<b>NORTHERN IRELAND CURRICULUM: THE ARTS</b>	
<b>PROJECT SUGGESTIONS</b>	<b>CURRICULUM STATUTORY REQUIREMENTS (with cross-curricular links)</b>
<p><b>Recycled Arts and Crafts</b> Think about what can be made from recycled everyday materials – perhaps a collection of Christmas decorations or paper weights/ ornaments. Study crafts from other cultures that have been made with recycled materials such as the soda can art of South Africa as inspiration.</p> <p><b>Environmental Display</b> Produce an eye-catching display for the classroom wall or school hall. This could be about an important environmental issue such as recycling, giving important information and telling people what they can do to help. Or your display could be a celebration of nature and biodiversity. Make sure your display includes a good balance of written work and art work/photographs. Or you may wish to create an environmentally themed mural. Take photos of your display and send them to us.</p> <p><b>Our Environment in Art</b> Create a set of drawings, paintings and/or sculptures to represent aspects of the local environment or global environmental issues. Use a variety of</p>	<p><b>Art and Design - Key Stage 1</b></p> <ul style="list-style-type: none"> <li>• <i>Look at and talk about resource material to stimulate own ideas.</i></li> <li>• <i>Enjoy and appreciate the work of artists, designers and craft workers from their own and other cultures. Use what has been viewed as a starting point for their own work.</i></li> <li>• <i>Talk about their own and others' work and how it was made, use observations to identify difficulties and suggest modifications.</i></li> <li>• <i>Experiment with a range of media, materials, tools and processes such as: drawing, painting, printmaking, malleable materials, textiles and three-dimensional construction.</i></li> </ul> <p><b>Art and Design - Key Stage 2</b></p> <ul style="list-style-type: none"> <li>• <i>Collect, examine and select resource material to use in the development of ideas.</i></li> </ul>

<p>techniques, utilising recycled materials whenever possible. These could perhaps illustrate how the local environment changes through the seasons or provide detailed illustrations of plant and animal species found or observed locally.</p> <p><b>Taking Inspiration from Great Artists</b> Learn about environmental artists like Andy Goldsworthy. Make and photograph your own environmental art pieces, using materials found in the local environment or in nature.</p> <p><b>Environmental Sculptures</b> Create sculptures on an environmental theme e.g. the rainforest, the Arctic, eco super heroes, recycled materials etc.</p> <p><b>Our Eco Sketch Books</b> Use sketching to document animal and plant species in the local environment. Document how they change through the seasons. Also, look at how the landscape changes through the seasons.</p> <p><b>Design: Solve an Environmental Problem</b> Can you design a product that provides a solution to an environmental problem? For example, too many cups are being thrown away in coffee shops – can you design an effective alternative to the disposable cup?</p>	<ul style="list-style-type: none"> <li>• <i>Look at and talk about the work of artists, designers and craft workers from their own and other cultures. Appreciate methods used in the resource materials and use their appreciation to stimulate personal ideas and engage with informed art making.</i></li> <li>• <i>Evaluate their own and others' work and how it was made, explain and share their ideas, discuss difficulties and review and modify work to find solutions.</i></li> <li>• <i>Use a range of media, materials, tools and processes such as: drawing, painting, printmaking, malleable materials, textiles and three-dimensional construction, selecting which is appropriate in order to realise personal ideas and intentions.</i></li> </ul>
<p><b>Take Inspiration from the Sounds of Nature</b> Spend time out in nature, listening carefully for sounds such as the wind, leaves moving and any animals. Try to create a soundscape that captures the mood of this experience, using simple instruments, percussion and voice. Develop ways to note the music down so that it can be played again, such as by using pictures and symbols to represent sounds.</p> <p><b>Write and Record an Environmental Song (and Dance)</b> Either compose a new song or write new words to a well-known tune. Perform it as a group and produce a video of the performance. You could also perform a dance to some of the song and include it on the video. The</p>	<p><b>Music: Key Stage 1</b></p> <ul style="list-style-type: none"> <li>• <i>Work creatively with sound by investigating, experimenting, selecting and combining sounds to express feelings, ideas, mood and atmosphere.</i></li> <li>• <i>Sing and perform with simple instruments to develop vocal and manipulative control.</i></li> <li>• <i>Listen and respond to their own and others' music making, thinking and talking about sounds, effects and musical features that they create, perform, or listen to.</i></li> </ul> <p><b>Music: Key Stage 2</b></p>



<p>song should have a strong environmental message, such as saving the rainforests, reducing global warming or using renewable energies.</p> <p><b>Junk Orchestra</b> Create musical instruments from recycled materials. You could:</p> <ul style="list-style-type: none"> <li>• Make a percussion instrument like a drum, maracas or a tambourine.</li> <li>• Make tones from different levels of water in bottles or glasses.</li> </ul> <p>Create and record a piece of music that can be played either individually or as a group. It could express the importance of taking action to help the environment through recycling, not dropping litter, leaving the car at home, turning off appliances rather than leaving them on standby etc.</p>	<ul style="list-style-type: none"> <li>• <i>Work creatively with sound by creating musical stories, pictures, patterns, conversations, accompaniments and by investigating ways of preserving the music they have created.</i></li> <li>• <i>Sing and perform with simple instruments from memory, by ear or from notation to develop vocal and instrumental skills.</i></li> <li>• <i>Listen and respond to their own and others' music making, thinking about, talking and discussing a variety of characteristics within music that they create, perform, or listen to.</i></li> </ul>
<p><b>Class Debate (Real or Imaginary Situation)</b> Please see page 1 for details.</p> <p><b>Eco Drama (Scripted or Improvised)</b> Please see page 1 for details.</p> <p><b>Nature Documentary</b> Study the work of a naturalist or animal behaviourist e.g. David Attenborough or Steve Backshall. Film a documentary video that adapts and/or mimics a chosen style. You could choose to report on the way that plants and animals in the school grounds/local area change over the seasons, identifying and profiling key species and explaining their lifecycles. Or you may prefer to report on a topical issue such as the impact that deforestation has on the plants and animals that live in the rainforest.</p>	<p><b>Drama: Key Stage 1</b></p> <ul style="list-style-type: none"> <li>• <i>Develop their understanding of the world by engaging in a range of creative and imaginative role-play situations on their own and with others, and responding in role to the dramatic play of others and to the teachers in role.</i></li> <li>• <i>Explore a range of cultural and human issues in a safe environment by participating in dramatic activity and sharing ideas with others.</i></li> <li>• <i>Develop a range of drama strategies including freeze frame, tableau and hot seating.</i></li> <li>• <i>Develop dramatic skills appropriate to audience, context, purpose and task by using simple props to suggest character, and by using symbols and images to develop action and make meaning.</i></li> </ul> <p><b>Drama: Key Stage 2</b></p> <ul style="list-style-type: none"> <li>• <i>Develop their understanding of the world by engaging in a range of creative and imaginative role-play situations.</i></li> <li>• <i>Explore a range of cultural and human issues in a safe environment by using drama to begin to explore their own and others' feelings about issues, and by negotiating situations both in and out of role.</i></li> <li>• <i>Develop a range of drama strategies including freeze frame, tableau, hot seating, thought tracking and conscience alley.</i></li> </ul>

	<ul style="list-style-type: none"> <li>Develop dramatic skills appropriate to audience, context, purpose and task by exploring voice, movement, gesture and facial expression through basic exploration of a specific role, and by structuring dramatic activity to make meaning clear for a chosen audience.</li> </ul>
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NORTHERN IRELAND CURRICULUM: THE WORLD AROUND US	
PROJECT SUGGESTIONS	CURRICULUM STATUTORY REQUIREMENTS (with cross-curricular links)
<p><i>Many of the topics that you can carry out as part of PAGES lend themselves to a cross curricular approach, meaning that they will meet objectives from across all 4 areas or Interdependence, Place, Movement and Energy and Change Over Time.</i></p> <p><b>TRANSPORT AND TRAVEL</b></p> <p>Carrying out a local transport survey allows children to find out how people travel to school, to work and on holiday. How does this differ from the ways that their parents and grandparents travelled?</p> <p>Are the types of vehicles used in their local areas the same as those used in a different (city or rural) location, or in another country?</p> <p>Links can be made to road safety: how can we keep ourselves safe when travelling and crossing roads?</p> <p>Design and make models of vehicles, some of which might move.</p> <p>Why do we wear seatbelts? How does friction help a car to stop? Older children may find out about the way that the air particulates caused by friction from car tyres impacts on air pollution.</p>	<p><b>Interdependence: Key Stage 1</b> Pupils should be enabled to explore:</p> <ul style="list-style-type: none"> <li>'Me' in the world.</li> <li>Interdependence of people and the environment.</li> <li>The effect of people on the natural environment over time.</li> </ul> <p><b>Interdependence: Key Stage 2</b> Pupils should be enabled to explore:</p> <ul style="list-style-type: none"> <li>How they and others interact in the world.</li> <li>How living things rely on each other within the natural world.</li> <li>Interdependence of people and the environment and how this has been accelerated over time by advances in transport and communications.</li> <li>The effect of people on the natural and built environment over time.</li> </ul> <p><b>Place: Key Stage 1</b> Pupils should be enabled to explore:</p> <ul style="list-style-type: none"> <li>change over time in local places.</li> </ul> <p><b>Place: Key Stage 2</b> Pupils should be enabled to explore:</p> <ul style="list-style-type: none"> <li>Ways in which people, plants and animals depend on the features and materials in places and how they adapt to their environment.</li> <li>Change over time in places.</li> </ul>

<p>Have there been issues in the local area relating to cars, such as speeding, or issues around air pollution? Children can campaign for change, researching the problems, interviewing local people and writing persuasive letters (for example to stop cars or delivery drivers idling with engines on near the school).</p> <p>What effects do the types of transport we use have on the environment, both in terms of the places that roads and railways are built, and the impact of the fuels that are used?</p> <p>How have vehicles themselves changed (for example, since the introduction of combustion engines) and how are they continuing to change (the introduction of electric cars) and what has been the environmental impact of these changes?</p> <p>Why do things and people need to be moved? There are opportunities here to discuss food miles and the processes involved in moving food from farm to plate. Pupils can discuss the ways that people have had to use transport to move as a result of natural disasters or wars.</p> <p>How have modes of transport influenced the location of settlements historically and geographically? Find out about historical voyages and their impact on the places being “discovered”.</p> <p>Findings can be communicated via displays, assemblies and a wide range of written outcomes.</p>	<ul style="list-style-type: none"> <li>• <i>Positive and negative effects of natural and human events upon a place over time.</i></li> </ul> <p><b>Movement and Energy: Key Stage 1</b>  <i>Pupils should be enabled to explore:</i></p> <ul style="list-style-type: none"> <li>• <i>How and why people and animals move.</i></li> <li>• <i>Changes in movement and energy over time.</i></li> </ul> <p><b>Movement and Energy: Key Stage 2</b>  <i>Pupils should be enabled to explore:</i></p> <ul style="list-style-type: none"> <li>• <i>The causes and effect of energy, forces and movement.</i></li> <li>• <i>Causes that affect the movement of people and animals.</i></li> <li>• <i>How movement can be accelerated by human and natural events such as wars, earthquakes, famine or floods.</i></li> <li>• <i>Positive and negative consequences of movement and its impact on people, places and interdependence.</i></li> </ul> <p><b>Change Over Time: Key Stage 1</b>  <i>Pupils should be enabled to explore:</i></p> <ul style="list-style-type: none"> <li>• <i>How people and places have changed over time.</i></li> <li>• <i>Positive change and how we have a responsibility to make an active contribution.</i></li> </ul> <p><b>Change Over Time: Key Stage 2</b>  <i>Pupils should be enabled to explore:</i></p> <ul style="list-style-type: none"> <li>• <i>How change is a feature of the human and natural world and may have consequences for our lives and the world around us.</i></li> <li>• <i>Ways in which change occurs over both short and long periods of time in the physical and natural world.</i></li> <li>• <i>The effects of positive and negative changes globally and how we contribute to some of these changes.</i></li> </ul>
<p><b>ANIMALS AND HABITATS</b></p>	<p><b>Interdependence: Key Stage 1</b>  <i>Pupils should be enabled to explore:</i></p>

### **The Zoo at My School**

Take a detailed look at the **micro-habitats** to be found in the school grounds. For example, identify and document the variety of mini-beasts to be found under a stone or log pile and think about why they are suited to living there. Students could sketch and label each mini-beast's key features and may also start to think about how they can be grouped into different types. You could take a look at the school (or local) pond and find out which species live there.

### **Design a Mini-Beast Hotel**

Using materials such as wooden pallets, dead wood, old bamboo canes, blocks of wood, straw and hay, dry leaves and loose bark, create your very own mini-beast mansion. The more you can use recycled or reclaimed materials the better. Carry out a full investigation of the species found using a mini-beast identification key. Look at simple classification - is it an insect, an arachnid or something else? Do different habitats attract different mini-beasts? How can we protect the places that mini-beasts and other animals need to survive?

You may wish to create a **hedgehog house**.

### **Creating Homes for Birds**

Create a range of nest boxes, bird tables and bird feeders to attract more birds to the school grounds. Expand the scope to the local community by selling nest boxes, bird feeders etc. to parents. Recycled materials can be used to make many of the objects e.g. bird feeders from plastic bottles or drink cartons, nest boxes from old planks with roof coverings from old tyres. Document your work using photography and written narrative.

### **Local Habitat Study**

Carry out a study of a local area, exploring which plants and animals live there. Compare this with that of a contrasting location. Consider the ways in which the climate and environment of a place affect the living organisms that are found there.

### **Local Wildlife Guide for Visitors**

- *How plants and animals rely on each other within the natural world.*
- *Interdependence of people and the environment.*
- *Interdependence of people, plants, animals and place.*

### **Interdependence: Key Stage 2**

*Pupils should be enabled to explore:*

- *How they and others interact in the world.*
- *How living things rely on each other within the natural world.*

### **Place: Key Stage 1**

*Pupils should be enabled to explore:*

- *how place influences plant and animal life.*
- *ways in which living things depend on and adapt to their environment.*
- *features of the immediate world and comparisons between places.*

### **Place: Key Stage 2**

*Pupils should be enabled to explore:*

- *How place influences the nature of life.*
- *Ways in which people, plants and animals depend on the features and materials in places and how they adapt to their environment.*
- *Features of, and variations in places, including physical, human, climatic, vegetation and animal life.*



<p>Create a guide to your local area's wildlife. Spend time out of doors observing, sketching, photographing and describing the plants and animals you can see in your local area. Get an understanding of how the local environment changes throughout the seasons. Make booklets or folders to inform visitors about the plants and animals they can see. Create illustrated food chains to show how they are interrelated. Use photography and/or video footage of the children at work to illustrate your project.</p>	
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## ENERGY SOURCES AND USES

As part of a wider topic on energy use, the following mini projects cover a wide range of objectives. Many of the objectives can also link with Language and Literacy skills.

### Plant Energy and Fossil Fuels

Follow the process of a forest from life to decay, to nutrients, to compression, to fossil fuel, to gas and energy.

- What types of energy are there?
- How do we use energy?
- How can we create energy in harmony with the environment whilst recognising the realities of the modern world and human needs?

### Renewable vs Non- Renewable Energies

Research the different kinds of energy and compare the advantages and disadvantages of each.

### Energy Comparison

Research statistics from a fossil fuel power station and a wind farm. Compare levels of energy produced and their environmental impacts. Plot results and discuss findings.

### Build Using Sustainable Energy Sources

Explore the uses of energy in various models and machines and investigate the ways that energy is used to create movement.

Some suggestions:

- Design and make a potato-powered clock, solar-powered mini-fan, solar-powered model car etc.
- Is it possible to set up a small wind turbine or windmill on the school grounds?

## Interdependence: Key Stage 1

*Pupils should be enabled to explore:*

- Interdependence of people and the environment.
- The effect of people on the natural environment over time.

## Interdependence: Key Stage 2

*Pupils should be enabled to explore:*

- How they and others interact in the world.
- How living things rely on each other within the natural world.
- Interdependence of people and the environment and how this has been accelerated over time by advances in transport and communications.
- The effect of people on the natural and built environment over time.

## Place: Key Stage 1

*Pupils should be enabled to explore:*

- positive and negative effects of people on places.

## Place: Key Stage 2

*Pupils should be enabled to explore:*

- Ways in which people, plants and animals depend on the features and materials in places and how they adapt to their environment.
- Features of, and variations in places, including physical, human, climatic, vegetation and animal life.
- Positive and negative effects of natural and human events upon a place over time.

## Movement and Energy: Key Stage 1

*Pupils should be enabled to explore:*

- Sources of energy in the world.
- Changes in movement and energy over time.

## Movement and Energy: Key Stage 2

<ul style="list-style-type: none"> <li>Can you design a water feature that runs on solar power or a pond that constantly recycles water using some form of energy?</li> </ul> <p><b>Impact of Industry - Research</b></p> <p>Explore some ways in which the use of natural resources through time has affected the local and global environment. Consider the changes that have taken place since the Industrial Revolution and find out about the impact that the use of fuels such as wood, peat, coal and oil have had on the environments from which they have been taken.</p>	<p><i>Pupils should be enabled to explore:</i></p> <ul style="list-style-type: none"> <li>The causes and effect of energy, forces and movement.</li> <li>Positive and negative consequences of movement and its impact on people, places and interdependence.</li> <li></li> </ul> <p><b>Change Over Time: Key Stage 1</b></p> <p><i>Pupils should be enabled to explore:</i></p> <ul style="list-style-type: none"> <li>Positive change and how we have a responsibility to make an active contribution.</li> </ul> <p><b>Change Over Time: Key Stage 2</b></p> <p><i>Pupils should be enabled to explore:</i></p> <ul style="list-style-type: none"> <li>How change is a feature of the human and natural world and may have consequences for our lives and the world around us.</li> <li>The effects of positive and negative changes globally and how we contribute to some of these changes.</li> </ul>
<p><b>FOOD &amp; FARMING</b></p> <p><b>Food Chains Around the World</b></p> <p>Understand the cycles of energy as they move through food chains. Realise that all energy taken in via food chains begins in the first instance with energy from the sun. Investigate how the movement of animals can impact on the foodstuffs they are eating in a given location, and how the disappearance of foods can, in turn, impact animal populations. Look at examples of predator/prey relationships from countries around the world. Study similarities and differences between them. Compare the size of the predators and prey and how they hunt and evade being caught. Learn how many herbivores have evolved special ways to digest their food e.g. cows and rabbits.</p> <p><b>You Are What You Eat</b></p> <p>Compare the bodies of various different animal species, including mammals, birds, reptiles and fish. How do predators differ from prey in terms of their</p>	<p><b>Interdependence: Key Stage 1</b></p> <p><i>Pupils should be enabled to explore:</i></p> <ul style="list-style-type: none"> <li>'Me' in the world.</li> <li>How plants and animals rely on each other within the natural world.</li> <li>Interdependence of people and the environment.</li> <li>Interdependence of people, plants, animals and place.</li> </ul> <p><b>Interdependence: Key Stage 2</b></p> <p><i>Pupils should be enabled to explore:</i></p> <ul style="list-style-type: none"> <li>How they and others interact in the world.</li> <li>How living things rely on each other within the natural world.</li> <li>Interdependence of people and the environment and how this has been accelerated over time by advances in transport and communications.</li> <li>The effect of people on the natural and built environment over time.</li> </ul> <p><b>Place: Key Stage 1</b></p> <p><i>Pupils should be enabled to explore:</i></p>

skeletons, muscles etc.? How do prey protect themselves? Make your findings into a folder, presentation or website using a selection of written work, artwork and photography. You may wish to include models too.

### **Foods Through Time and Place**

Consider the impact of time and place on the foods we eat.

- Explore the way that settlements have grown up close to food sources through history.
- Investigate the types of foods that children's parents and grandparents ate and recreate lunch boxes of the past.
- Find out typical meals from places around the world.
- Explore the issue of food scarcity in the past, such as during famine or war. How did people cope? Which parts of the world are still affected by food scarcity and why?
- How do farming techniques differ around the world, and how have these changed over time?
- What effect does farming have on the natural environment?

### **Food Miles Survey**

Ask the children to look at the contents of their fridge or food cupboards. Note down the items and where they come from in the world. Work out how many miles the food has travelled. Suggest local alternatives.

### **Low Food Miles Cookbook**

Create and cook recipes made using ingredients that are as far as possible sourced locally and in season. If possible, visit a local farm to find out how food is grown there. Photograph the cooking process and the completed recipes or compile a video. Hold a tasting session for the local head teacher /staff/ pupils and include their comments in the project. If possible, source some ingredients from the school's garden or greenhouse.

### **Building an Oven**

- *how place influences plant and animal life.*
- *ways in which living things depend on and adapt to their environment.*
- *features of the immediate world and comparisons between places.*
- *change over time in local places.*
- *positive and negative effects of people on places.*

### **Place: Key Stage 2**

*Pupils should be enabled to explore:*

- *How place influences the nature of life.*
- *Ways in which people, plants and animals depend on the features and materials in places and how they adapt to their environment.*
- *Features of, and variations in places, including physical, human, climatic, vegetation and animal life.*
- *Our place in the universe.*
- *Change over time in places.*
- *Positive and negative effects of natural and human events upon a place over time.*

### **Movement and Energy: Key Stage 1**

*Pupils should be enabled to explore:*

- *How and why people and animals move.*

### **Movement and Energy: Key Stage 2**

*Pupils should be enabled to explore:*

- *The causes and effect of energy, forces and movement.*
- *Causes that affect the movement of people and animals.*
- *How movement can be accelerated by human and natural events such as wars, earthquakes, famine or floods.*
- *Positive and negative consequences of movement and its impact on people, places and interdependence.*

### **Change Over Time: Key Stage 1**

*Pupils should be enabled to explore:*

- *Ways in which change occurs in the natural world.*



With help from someone who has the necessary experience, build a cob oven in your school grounds. Pupils can take part in preparing and cooking meals, such as pizza. It would be fantastic if they can grow the tomatoes, onions, herbs etc. themselves in the school garden. They can then think about what makes a healthy meal.

### **Journey of a Pizza**

Using a pizza (or other food dish comprising multiple ingredients) consider how we are interdependent with other countries for the food that we eat. Track the journey of each different ingredient from the place it was grown, to the final dish and consider the role of the workers who have been involved with producing, shipping and selling each ingredient.

- *How people and places have changed over time.*

### **Change Over Time: Key Stage 2**

*Pupils should be enabled to explore:*

- *How change is a feature of the human and natural world and may have consequences for our lives and the world around us.*
- *Ways in which change occurs over both short and long periods of time in the physical and natural world.*
- *The effects of positive and negative changes globally and how we contribute to some of these changes.*

## **NORTHERN IRELAND CURRICULUM: PERSONAL DEVELOPMENT & MUTUAL UNDERSTANDING**

### **PROJECT SUGGESTIONS**

#### **Belonging to a School Eco Committee or Gardening Club**

Being part of a school eco club can be a valuable way to develop children's sense of self-confidence, helping them to relate to others in a group context. By taking steps to bring about real change in the school and local

### **EXPERIENCES AND OUTCOMES**

*(with cross-curricular links)*

#### **Personal Understanding and Health: Key Stage 1**

*Pupils should be enabled to explore:*

- *Their self-esteem and self confidence*
- *Their own and others' feelings and emotions and how their actions affect others*

#### **Personal Understanding and Health: Key Stage 2**

community, children can be helped to recognize their ability to contribute to society locally and in the wider world.

We would love to hear about the activities of your school's eco committee or green club. The project could include written work, diary entries, posters, photographs or perhaps a video. Information to include:

- How many children belong to the group?
- How often do they meet?
- How is the group organised?
- What activities do members take part in?
- What do the group feel they have achieved so far?
- What aims do the group have for the future?
- How do members feel they benefit from their involvement?

### **School Ground / Local Area Improvements**

Work as a group, or a collection of smaller working groups, to think about how your school grounds, or local area could be improved. Pupils could carry out a survey/questionnaire to find out what teachers and pupils feel is needed to improve the school's outdoor space. Ideas to focus on:

- Develop a neglected pond area or create a new school pond – the perfect place to study the life cycle of a frog.
- Plant some trees to encourage more wildlife, create shaded areas and perhaps grow fruit for the school.
- Create a small urban garden in a school with limited grounds – there are lots of clever things you can do to make the most of the space you have and maximise opportunities for outdoor learning.
- Start making your own compost.
- Set up a small local book borrowing library for eco books
- Investigate the possibility of setting up a 'city farm' space in less rural areas, even a couple of raised beds to grow lettuce or herbs for local people.

*Pupils should be enabled to explore:*

- *Their self-esteem, self-confidence and how they develop as individuals.*
- *Their management of a range of feelings and emotions and the feelings and emotions of others.*

### **Mutual Understanding in the Local and Wider Community: Key Stage 1**

*Pupils should be enabled to explore:*

- *Responsibility and respect, honesty and fairness.*
- *Constructive approaches to conflict.*
- *Developing themselves as members of a community*

### **Mutual Understanding in the Local and Wider Community: Key Stage 2**

*Pupils should be enabled to explore:*

- *Human rights and social responsibility*
- *Playing an active and meaningful part in the life of the community and being concerned about the wider environment.*

### **Language and Literacy – Talking and Writing**

### **Recycled Fashion Show**

Research the impact of 'fast fashion' on the world. Explore the idea of child labour and the fact that the clothes we wear (and get rid of) have an impact on people and the environment across the world.

Design and make a range of clothing from recycled materials. You could hold a fashion show where students model the garments they have made on the catwalk!


