



Focus on the Environment

Key Stage 4

Environment and Society

Focus on the Environment

Aim: To develop knowledge and understanding of the interdependence and interrelationship of cultural, economic, environmental, political and social matters and to help students to understand themselves as social beings, their interrelationships within society and their interactions with the environment.

Session 1

Attitudes to the Environment

Session 2

Project





Teaching Plan Outline

Title	Focus on the Environment		
Aim	To develop knowledge and understanding of the interdependence and interrelationship of cultural, economic, environmental, political and social matters and to help students to understand themselves as social beings, their interrelationships within society and their interactions with the environment.		
Duration	2 class periods	Resources	Resource 1 Classroom questionnaire Internet access
Learning intentions (KS4 statements of requirement) Environment and Society Local & Global Citizenship Personal Development Geography	<ul style="list-style-type: none"> • Develop a sense of place and an appreciation of the environment, as well as awareness of the ways in which people and environments interact and are interdependent, the importance of sustainable development in those interactions, and the opportunities, challenges and constraints that face people in different places; • Understand the consequences and variety of the use of natural resources and environments and of approaches to their protection, conservation and sustainable management. 		
Skills & capabilities	<ul style="list-style-type: none"> • Problem solving • Self-management • Working with others 		
Cross-curricular skills	<ul style="list-style-type: none"> • Communication • Using Maths • Using ICT 		
Links to other curricular areas	<ul style="list-style-type: none"> • GCSE English Language* <ul style="list-style-type: none"> - Expressing ideas & information clearly - Forming independent views & challenging what is heard or read on the grounds of reason, evidence or argument • GCSE Maths* <ul style="list-style-type: none"> - Select & apply mathematical techniques & methods in mathematical, everyday & real-world situations - Reason mathematically, make deductions & inferences, & draw conclusions - Interpret & communicate mathematical information in a variety of forms appropriate to the information & context. 		
Assessment for Learning	<ul style="list-style-type: none"> • Sharing learning intentions • Sharing & negotiating success criteria • Giving feedback to pupils • Effective questioning to probe student understanding • Opportunity for peer assessment 		

* more specific information about cross-curricular links is provided below.



Session 1: Attitudes to the Environment

This module focuses on attitudes to the environment, on sustainability and the interdependence between the environment and human behaviour. It is the aim of this module to discuss with the students to what extent individual behaviour has an effect on sustainable development and the protection of the environment. Students will view findings of the Northern Ireland Life and Times Survey to find out about attitudes toward the environment and environmental behaviour in Northern Ireland.

Activity 1: Facts and Figures about the Environment and Eco Policy

In this activity, by visiting a number of websites students retrieve information and statistics on the environment in Northern Ireland with regard to fossil fuels and global warming, energy efficiency, waste management and pollution.

Ask students to visit the following websites to find out facts and figures about the environment in Europe and in Northern Ireland:

www.foe.co.uk/northern_ireland/	Friends of the Earth (Northern Ireland)
www.doeni.gov.uk/	Department of the Environment NI
www.actionrenewables.org	Action Renewables
http://www.energy.eu/	Europe's Energy Portal
http://www.decc.gov.uk/	UK Department of Energy and Climate Change

Activity 2: Attitudes to the environment

In this activity students investigate and discuss attitudes to the environment expressed by respondents in the 2000 Northern Ireland Life and Times survey.

1. Open your web browser and type in the URL for the ARK homepage, which is: www.ark.ac.uk
2. On the ARK homepage:
 - a. Click on **Surveys** → **NILT – N. Ireland Life and Times Survey**. This will open the NILT home page.
 - b. Once on this homepage, click on **Results** → **list of modules**. Scroll down and click on '**Environment**'.

In the list of questions on the screen, find the following questions:

ENVIRDIF: *Is it too difficult for someone like you to do much about the environment?* 2000

ENVIRRG: *Do you do what is right for the environment, even when it costs more money or takes more time?* 2000

NOPTENV: *Is there point in doing what you can for the environment unless others do the same?* 2000



SCIESOLV: *Will science solve environment problems with little change to our way of life?* [2000](#)

HARMVIRW: *Do people worry too much about human progress harming the environment?* [2000](#)

ENVIRECG: *Does Northern Ireland need economic growth in order to protect the environment?* [2000](#)

HARMEVIR: *Does almost everything we do in modern life harm the environment?* [2000](#)

PRENVIR: *How willing are you to pay much higher prices in order to protect the environment?* [2000](#)

TAXENVIR: *How willing would you be to pay much higher taxes in order to protect the environment?* [2000](#)

CUTENVIR: *How willing would you be to accept cuts in your standard of living in order to protect the environment?* [2000](#)

CTRYEFEN: *Is Northern Ireland doing enough for the environment?* [2000](#)

LESSDRIV: *How often do you cut back on driving a car for environmental reasons?* [2000](#)

Click on the links in each question and view the results. Let the students record and interpret the results. **Resource 2** below provides a summary of the results of the questions.

Session 2: Project

Lough Neagh is the largest fresh water lake in the UK. In this project students explore how an environmentally-friendly management of Lough Neagh could look like.

Using available Internet resources, students develop a sustainable development plan for Lough Neagh. Simply type in **'Lough Neagh'** in search engines (such as Ecosia, Google or msn) and find out about existing interest groups related to the Lough. Encourage students to consider different interests, such as agriculture, fishing, tourism, transport, wildlife, drinking water production etc. Some useful websites are these:

- www.loughneagh.com
- www.loughneaghpартnership.com
- www.oxfordisland.com
- <http://riverbannloughneagh.org>
- www.ehsni.gov.uk/natural/country/61.shtml
www.ehsni.gov.uk/pubs/publications/LNMS_June_02.pdf (Lough Neagh Management Strategy on the Environment and Heritage Service website).



Notes to Teachers

Fossil Energy and Global Warming

According to the Environment Agency (www.environment-agency.gov.uk/), energy use has been rising over the past thirty years, mainly because of increased demand from households and transport. In the UK from 1980-2003 the amount of energy used for transport and in the homes has increased from 18% to 35% and 40% to 49% respectively. The energy used to facilitate this rise comes almost exclusively from non-renewable sources such as fossil fuels (oil, gas, coal). The use of fossil fuels leads to carbon dioxide (CO₂) emission, which contributes to global warming. According to the Energy Saving Trust, It would take a forest three and a half times the size of London to absorb the Co₂ our homes give off in a year

Between 1990 and 2003, industrial CO₂ emission has decreased by 19%. This is due to stricter regulations by the Environment Agency but also to the fact that energy-intensive manufacturing businesses have closed or have been relocated to other parts of the world, such as Eastern Europe or Asia.

At the same time, domestic CO₂ emission has increased by 12% and CO₂ emission through transport by 3%. This is despite the fact that more modern technologies mean that pollution from individual vehicles is now lower than it was 15 years ago. According to the UK Department of Transport White Paper published in 2004, transport levels are predicted to rise by 40% until 2025, whilst air transport is predicted to double between 1995 and 2015.

Although the UK has one of the largest potentials for wind, wave and tidal energy in Europe, according to the Department of Energy and Climate Change in 2009 only 6.7% of electricity came from renewable resources compared to Austria (over 75%), Sweden (60%) and Portugal 40%. The UK government target of 15% renewable energy production by 2010 has been missed.

It is now widely accepted that increased CO₂ emission has contributed to climate change, in particular global warming. Global warming has been linked to hotter and drier summers, warmer and wetter winters, which among other effects lead to increased incidences of floods, droughts (water shortage) and the worldwide rise of sea water levels. (For more information see Climate Change Indicators Report of the Department of the Environment for Northern Ireland for full details: www.ehnsi.gov.uk/pubs/publications/cci.pdf). All this endangers the survival of species – both flora and fauna - that rely on certain weather conditions, such as polar bear or alpine plants in mountain regions, to name just two.

In 2000 the NILT survey (**Resource 2**) showed that half of the respondents agreed that there is little point in doing something for the environment unless others did too. However, the figures above dispel the myth that individuals cannot do anything to improve and protect the environment.



Waste, Wastefulness and Pollution

According to the Department of Environment for Northern Ireland, the average Northern Ireland household produces more than a tonne of waste every year. In total, this mounts up to enough rubbish to cover the whole of Northern Ireland. In Northern Ireland, every year:

- 230 million carrier bags are used, most of which end up in landfill sites;
- Around £1m worth of aluminium cans is disposed of;
- An average person uses about 140 glass bottles;
- Three trees have to be felled to provide the quantity of paper that is used by the average household.

Additionally, every day around 200,000 used nappies are thrown in the bin in Northern Ireland.

According to Friends of the Earth (www.foe.co.uk/northern_ireland/), Northern Ireland has one of the poorest records of environmental protection in the UK. For example, in 2004, only 45% of sewage treatment works complied with European law.

Illegal dumping and landfills have become such a problem that these issues received extensive press coverage.

Only in the past few years, councils have introduced comprehensive recycling schemes. This often happened because of pressure from European legislation, rather than demand by the population or local initiatives. Non-compliance with European legislation would have resulted in severe fees for local councils.

Useful sources of information for the module:

http://www.energy.eu/	Europe's Energy Portal
http://www.decc.gov.uk/	UK Department of Energy and Climate Change
www.greenpeace.org.uk/	Greenpeace (UK)
www.foe.co.uk/northern_ireland/	Friends of the Earth (Northern Ireland)
http://unfccc.int/	UN Convention on Climate Change
www.environment-agency.gov.uk/	Environment Agency UK
www.doeni.gov.uk/	Department of the Environment NI
www.actionrenewables.org	Action Renewables
http://www.brysonrecycling.co.uk	Bryson House Recycling
www.belfastenergyadvice.com	Belfast Energy Advice Centre

Publication: Being Green: Attitudes to the Environment, by Paula Devine and Katrina Lloyd, Research Update 15: www.ark.ac.uk/publications/updates/update15.pdf



Focus on the Environment

Key Stage 4

Environment and Society

Focus on the Environment

Aim: To develop knowledge and understanding of the interdependence and interrelationship of cultural, economic, environmental, political and social matters and to help students to understand themselves as social beings, their interrelationships within society and their interactions with the environment.

Session 1

Attitudes to the Environment

Session 2

Project





Resource 1: Worksheet

Visit the following websites to find out facts and figures about the environment in Northern Ireland.

www.foe.co.uk/northern_ireland/	Friends of the Earth (Northern Ireland)
www.doeni.gov.uk/	Department of the Environment NI
www.actionrenewables.org	Action Renewables
http://www.energy.eu/	Europe's Energy Portal
http://www.decc.gov.uk/	UK Department of Energy and Climate Change

Visit other related websites, if necessary. Record the information you gathered by topic in the table below.

Global warming and fossil fuels
Waste and waste management/Recycling
Energy efficiency
Transport



Other information/other subjects areas

A large, empty rectangular box with a black border, intended for providing additional information or details related to other subject areas.



Resource 2: NILT survey results on attitudes to the environment
Northern Ireland Life and Times Survey: Questions asked in 2000:

Table 1: (Answers in %)

Strongly agree	Agree	Neither	Disagree	Strongly disagree	Can't choose
It is just too difficult for someone like me to do much about the environment.					
6	35	16	37	3	1
I do what is right for the environment, even when it costs more money or takes more time.					
2	31	33	27	3	3
There is no point in doing what I can for the environment unless others do the same.					
10	40	15	27	5	1
Modern science will solve our environmental problems with little change to our way of life.					
3	17	32	27	8	10
In order to protect the environment Northern Ireland needs economic growth.					
8	43	22	13	1	11
People worry too much about human progress harming the environment.					
5	26	27	31	5	4
Economic growth always harms the environment.					
2	10	32	40	2	11

Table 2 (Answers in %)

Very willing	Fairly willing	Neither	Fairly unwilling	Very unwilling	Can't choose
How willing would you be to pay much higher prices in order to protect the environment?					
5	24	28	17	23	4
And how willing would you be to pay much higher taxes in order to protect the environment?					
3	17	19	21	36	3
And how willing would you be to accept cuts in your standard of living in order to protect the environment?					
2	15	20	25	34	4

**Table 3: In general, do you think that Northern Ireland is doing...**

	%		
	Male	Female	All
More than enough	3	2	2
About right amount	32	27	29
Too little	37	44	41
Can't choose	26	27	27

Results for people of different ages

	%					
	18-24	25-34	35-44	45-54	55-64	65+
More than enough	0	1	2	3	5	3
About right amount	19	29	27	32	31	32
Too little	40	39	45	44	46	32
Can't choose	41	31	26	21	14	31

**Table 4: And how often do you cut back on driving a car for environmental reasons?**

	%		
	Male	Female	All
Always	2	1	2
Often	7	7	7
Sometimes	21	22	22
Never	49	45	47
No car /can't drive	18	25	22
Can't choose	0	0	0

Results for people of different ages

	%					
	18-24	25-34	35-44	45-54	55-64	65+
Always	2	1	0	3	4	1
Often	4	8	6	7	10	5
Sometimes	20	28	31	22	15	13
Never	45	51	50	47	49	40
No car/can't drive	27	12	12	22	19	39
Can't choose	0	0	0	0	1	0