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ENVIRONMENTAL EDUCATION FORUM

DELIVERING ESD!

DELIVERING EDUCATION FOR SUSTAINABLE DEVELOPMENT

Welcome to the latest supplement to accompany the LEEF Newsletter. It has been produced by the Environmental Education Forum to help teachers and youth leaders discover all about ESD in the new curriculum and facilitate the teaching of it.

It has been designed to give you ideas on projects that the whole school can become engaged in and can be used in a range of curriculum subjects across all four key stages. Please feel free to photocopy this resource and pass it on to a colleague who may also be able to make use of it.

What is Sustainable Development?

Sustainable Development is simply defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. Sustainable Development is the fundamental challenge that all societies face if we are to avoid long-term damage to the Earth's basic life-support systems. In response to this, UNESCO has declared 2005-2014 as the Decade of Education for Sustainable Development.

What is Education for Sustainable Development?

Education for Sustainable Development is an approach to the whole curriculum and management of a school, not a new subject. It has its roots in environmental education and development education. As a result, many of the building blocks of Education for Sustainable Development are already present in every school.

ESD is relevant to everyone at whatever stage of life they find themselves, and should therefore be viewed in the context of lifelong learning. Learning and communication lie at the heart of Sustainable Development. The main way in which we need to approach this lies in education of the next generation. The new Northern Ireland Curriculum will encompass the concept of Sustainable Development at all levels, with an emphasis on achieving the behavioural change required to live more sustainably.

How Will This Supplement Help Me?

This supplement will provide you as a teacher with connected and tangible ways to facilitate the teaching of ESD in your school. It gives you details of how you and your school can become involved in one of two environmental schemes that will lead to your school achieving an environmental accreditation and/or recognition for your students work.

These schemes are:

- **ECO SCHOOLS GREEN FLAG AWARDS**
- **ECO-UNESCO YOUNG ENVIRONMENTALIST AWARDS**

Inside you will see how to get involved in the awards programmes and will learn about the steps required to reach accreditation.

There are hands-on, practical projects to carry out, as well as many examples of schools in Northern Ireland that have been involved with these schemes.

Finally, throughout the supplement you will find a range of websites and further reading resources to help complement the work of these two agencies and your journey through the world of ESD in the revised curriculum!

PLEASE MAKE SURE THAT WHEN YOU HAVE FINISHED READING THIS NEWSLETTER YOU PASS IT ON TO WORK COLLEAGUES, FRIENDS OR INTERESTED GROUPS AND INDIVIDUALS WHO MAY ENJOY READING IT.

Linking Action Plans/Objectives to the Curriculum

The key to a successful Eco-Schools Programme without a lot of extra work for the teachers involved is to link it through the school curriculum. This section will give some ideas on how this can be achieved at primary school level. Take for example a school which wishes to concentrate mainly on litter for its first Green Flag.

Bronze Level for Litter

At the Bronze Level of the Eco-Schools Award the school will mainly concentrate on establishing the Eco-Schools Process including the committees and communication throughout the school community. The action taken should ensure that the school is aware of the litter problem and its extent, that the children take responsibility, and that an improvement is observed. At this level extensive evaluation is not required but is it important that improvement is determined by some means. The following suggestions show how this can be achieved:

What is Litter?

Teachers could begin by examining what litter is. There are numerous guides and worksheets available on the Internet. Here are some interesting sites from which photographs can be taken and ideas gleaned [Teachers should vet their content for suitability before giving out references].

NEWS ARTICLE ON LITTER

This BBC news article called "Fast Food and gum litter 'rise'" written in 2004 includes a short news article, a video clip and comments from the public. It would be a useful tool in classes to discuss the media coverage of this important issue. <http://news.bbc.co.uk/1/hi/uk/3511639.stm>



PHOTOGRAPHS OF WASTE

Photograph of Children in Manila Bay, the Philippines, collecting litter in the harbour area (to sell) at the bottom of the page <http://marine-litter.gpa.unep.org/framework/global.htm>
An interesting website is referenced below. It has great photographs which discusses the waste scavengers in Third World Cities, "garbologists" in America who scientifically analyse waste in landfill sites, an artist who makes creations from trash which sell for thousands of dollars [with photos], and a photograph of trash near the Great Pyramid of Giza. Have a Look At: The Fascinating World of Trash PETER T. WHITE / Photographs by LOUIE PSIHOYOS, National Geographic v.163, n.4, 1apr1983 <http://www.mindfully.org/Sustainability/Trash-Garbage-Junk1apr83.htm>

THE HISTORY OF WASTE

There is a great graph at the bottom of the page, which classifies the type of waste produced over time. Good for further analysis. <http://www.wasteonline.org.uk/resources/InformationSheets/HistoryofWaste.htm>

This website gives a great summary of waste over time <http://www.warrington.gov.uk/services/waste/history/>

LITTER IN IRELAND

See a graph of the different types of litter in Ireland. http://www.litter.ie/system_survey_results/index.shtml

LITTER ON BEACHES

See the top 20 items found on beaches: <http://www.adoptabeach.org.uk/>

- **Initial Litter Survey**

The initial situation of the litter problem within a school [assuming there is one!] should be determined. Classes could for example draw maps of the school grounds indicating where the bins are situated and any hot spot areas where litter accumulates or is blown in from outside.

Some of the committee members could take photographs of litter within the playground. These could form a bank of photographs that could be used for future presentations. Novel camera angles could be used to create more artistic photographs.

- **Litter Picker Rota Established.**

It is important that children within the whole school take responsibility for litter and one way to this is to establish a rota of litter pickers. One school called their litter pickers Garbage Gobblers and gave them red hats.

- **Undertake a Litter Sort**

The litter collected during one day or throughout the week could be collected and carefully sorted into different categories. Classes could then tally the counts in each group and construct graphs to illustrate the type of litter found.

- **Create a Litter Display.**

The children could make a display out of the litter they have collected in one week. They could make an artistic display out the items found. Inspiration for this can be found on various websites including: <http://www.mindfully.org/Sustainability/Trash-Garbage-Junk1apr83.htm>.

- **Presentation made at a school assembly on the litter they have found in the school.**

The children could prepare a short talk on what litter is, why litter might be a problem and what they have found in their school. This would involve some research into the problem of litter including possibly the penalties for dropping litter in their council area. Preparing and giving a short oral presentation to a familiar group or the class on personal interests or curricular topics and encouraging awareness by the audience including the use of multimedia presentations, for example, *present to a group their ideas or information about an animal, insect or bird, as part of a study on habitat, using digital technology where appropriate*;

Silver Level for Litter

At Silver Level we are expecting the children to first of all construct an Eco-Code and to increase the contact levels between the outside community and the school. We would expect the involvement of parents and communication to governors.

- **Requesting Outside Support and Advice**

Students should be writing letters to their local council education officers [contact Tidy Northern Ireland for an up-to-date list] requesting some advice on the educational visits that can be arranged on the topic of litter. Through these visits the students might be able to learn about the structure of local government, laws, and the jobs of people associated with litter in their council area.

Students could be writing a short article for the newsletter or creating a poster to invite parents to attend committees and help with activities. Allow the children to handle most of this work!

The students could write to ask for advice and help on litter from one of our many partners. Ask Tidy Northern Ireland for an up-to-date list of contacts and addresses.

- **Run a School Litter Campaign**

Students could run a litter campaign within the school for a short period of maybe a week. They could call it some novel name. The elements of this campaign may include the following:

- **Attitude Questionnaire**

The children could use and analyse the results of a questionnaire to investigate the characteristics of people who litter using a variety of questions. A sample questionnaire is included below but students should be able to modify this for their own needs.

Attitude questionnaires can vary in their level of difficulty and analysis allowing them to be used across all the key stages of the curriculum. It would be good practice to run the questionnaire before and after the campaign. The results could be published in a newsletter. You may want to add open ended questions and more and different options. This is not a foolproof questionnaire; it is just a starting point for discussion and development.



- **Poster Creation**

Students could be asked to create posters that could be displayed around the school. All classes can be involved in their creation. The Eco-Committee could if it wishes choose to run a competition and judge the best entrants for various categories including best slogan, best art work, most effective poster. Voting could even occur after the posters have been displayed for a week. There is a lot of potential to examine posters and their audiences for more advanced work up to secondary level. A range of posters in various countries [littering is a global concern] and for various age groups [check for suitability] are given in the web links section on page 8 of this supplement.

Green Flag Level for Litter

At Green Flag Level the amount of evaluation of actions would be expected to increase as would the level of involvement with the local community. Some suggestions are below:

- **Community Litter Pick Day**

The committee could organise and run a litter pick day in the local area, recruiting the help of parents and local organisations. Contact the local council for help with litter pickers etc. It could be in a park, in a street, on a beach or near a river but remember that safety concerns will have to be addressed. For advice on running a litter pick please see the pdf file published by our sister organisation ENCAMS in England: <http://www.encams.org/uploads/publications/litterorganisingcleanup.pdf>.

If you live near a beach then why not join in Beachwatch 2006: 16th-17th September. Beachwatch is a nation-wide beach clean-up and litter survey organised by the Marine Conservation Society (MCS) - the UK charity dedicated to the protection of the marine environment and its wildlife. It takes place once every year, over the third weekend of September - if you want to do just one beach clean and survey in the year, this is the time to do it. You could combine it with a sponsored walk. http://www.adoptabeach.org.uk/pages/page.php?cust_id=2

- **Stall or Stand at Local Fair or Library**

Why not take your litter creations [see Bronze Award] and display them at the school fair or another place like a local library. It will give your school lots of publicity.

- **Run Community Based Litter Campaign**

The campaign that you ran for the Silver Level Award could be extended further out from the school into the local community. It could include the display of posters in business premises [maybe phoning and sending the posters to them for example], taking photographs of problem areas [with the support of parents], questioning people outside the school [which would probably be relatives and friends]. The results of such a survey would be of great interest to the local council and the newspapers. You can find photographs showing litter levels of different grades here: http://www.rotherham.gov.uk/NR/rdonlyres/7C65EC42-2672-4D1B-9CAD-16FB3605315E/0_Street_prideServiceStandardsforLitter.pdf

- **Connect with other schools locally and globally**

It would be fantastic if two schools could work closely together on a litter campaign or display in a community centre. Ask Tidy Northern Ireland for a list of schools in your council region who may be interested in teaming up with you. They will have all the contact details to connect schools. Connecting up internationally would be even more impressive. You could learn about the different litter laws that are imposed in different countries and swap questionnaires and photographs. To find out schools that you could easily link with either contact Tidy Northern Ireland

- **Create Control Charts**

Evaluation and the creation of a litter free school is crucial at Green Flag Level. Litter pickers for the green flag award could always keep a tally of the items collected each day and note the results on a table on the notice board. These results could be graphed in preparation for discussion at any committee meeting so that any changes in litter levels could be dealt with promptly.

- **Get the Media Involved:**

It is important at Green Flag Level that the events in the community are publicised in the local newspapers.

- **Enter the Tidy Schools Competition.**



Your school may be so clean that you could enter this competition.

See <http://www.niacbestkept.com/application-forms.html> for further details of how to enter.



YOUNG ENVIRONMENTALIST AWARDS 2007 TAKE PART, TAKE ACTION AND MAKE A DIFFERENCE! A TEACHERS GUIDE TO GETTING INVOLVED

'It was great feeling you could make a difference and that you could change things' Pupil from Grosvenor Grammar School, Co. Down

If you want to make a difference and change things make sure to take part in the Young Environmentalist Awards 2007. The Young Environmentalist Awards (YEA) is an all island environmental awards programme for young people between the ages of 12 and 18. The awards honour young people who protect, conserve and enhance our environment, making a difference in the lives of others locally and globally by carrying out an environmental project. The YEA is run by ECO-UNESCO - Ireland's environmental education and youth organisation.

- **Who can get involved?**

Young people in schools, youth organizations, environmental groups and community groups can take part in the YEA.

- **How does it fit my programme?**

Formal Setting:

In schools the Young Environmentalist Awards (YEA) programme facilitates young people to address environmental issues and sustainable development through research, project planning, taking positive action for the environment and raising awareness.

The YEA can be used as a cross curricular tool for incorporating many of the principles of environmental education and education for sustainable development, most notably the YEA can be integrated into the Geography curriculum at Key Stage 4 under the themes atmosphere, eco-systems and population. Within the Science curriculum at Key Stage 3 under Life and Living Processes, Physical Processes and Material and their uses, as well as at Key Stage 4 in all GCSE Single and Double Award syllabi.

"The revised Northern Ireland Curriculum embeds the concept of sustainable development into the curriculum at all levels with an emphasis on demonstrating and achieving the positive behavioural change required to live more sustainably. (The Education for Sustainable Development (ESD) Good practice for Primary, Secondary and Special Schools, 2005, pp 3)

Non-Formal Setting:

Young people in youth organizations, environmental groups and community groups can take part in the Young Environmentalist Awards (YEA). The YEA can offer an opportunity for young people from a variety of settings to participate in practical environmental projects that can be easily incorporated into a winter programme.

- **Why get involved?**

The YEA promotes positive environmental awareness, the personal development of young people, social responsibility and active citizenship. Young people can make a positive contribution to their environment and community through participatory action. Through the project participants develop and improve organisation and communication skills, while gaining knowledge and building environmental awareness. Participants learn to work with others, develop confidence, and leadership qualities.

- **How to get involved:**

Young People can enter the junior (12-15) or senior category (16-18 yr olds) of the awards, which facilitates teams of between 2 and 25. There are some important dates to remember:

Registration of project outline: 24th November 2006

You can register online at www.ecounesco.ie, or contact us on 00353 1 622 5491.

YEA Project Categories

There are several categories of project that participants can become involved with, these include:

ENERGY
WATER
BIODIVERSITY
WASTE
CLIMATE CHANGE
ECO-HERITAGE
ECO ART & DESIGN

ECO-COMMUNITY DEVELOPMENT
ECO-ENTERPRISE
ECO-TECHNOLOGY
CONSUMERISM
TRANSPORT
CROSS SECTORAL

CASE STUDIES OF PREVIOUS YEA ENTRANTS AND WINNERS:

Overall Junior Winners of the YEA 2006
Project Title: 'Slurry busting nasty nitrates'
Ballycastle High School
33 Rathlin Road
Ballycastle
Co. Antrim



This innovative project tackled a local problem and developed a local solution. Nitrates, from farm wastewater, is a major cause of water pollution. Next year the EU Nitrates Directive will be adopted by farmers in Northern Ireland. The group recognised that this Directive will protect against water pollution, but may cause problems from small farmers in their area, who may have to build water storage tanks to prevent waste water run-off. They decided to investigate how farm run off causes water pollution, its impact on wildlife and how farmers could cut their costs in deciding what water is safe to pass into streams and which should be stored. The group investigated different ways water quality can be tested, deciding on a Biological Oxygen Demand test. They developed an easy to use kit for this test and gave it to farmers to try. This kit allows farmers to test their own water samples, and raises awareness of the damage water pollution can have. To publicise their results and their kit the group produced articles for local newspapers and hope to continue the project in the future.

Overall Senior Winners of the YEA 2006
Project Title: 'Our local environment'
Scoil Mhuire
Athy,
Co. Kildare

Wetlands are an important wildlife habitat in Ireland. This group from Kildare decided to raise awareness of their importance and actively conserve an area of wetland in their area. To do this the group carried out detailed ecological surveys of a local fen habitat, learning a great deal about their local wildlife along the way. Following this they decided to highlight the importance of wetlands, developing a poster campaign in their school and a power point presentation for use in classes in their school, local national schools and at the Athy Heritage Centre, where the group have been invited to speak on a number of occasions. They also developed bookmarks and leaflets promoting their 'Top Ten Tips for the environment' which they distributed throughout their school and community. To really make an impact for wildlife the group raised enough money to purchase an area of peatland with the Irish Peatland Conservation Council. They hope that in the future they will be able to hold further fund raising events to buy more of this important habitat.

Junior Water Category
Project Title: 'Water Wars',
Sacred Heart Grammar School,
10 Ashgrove Avenue,
Newry .

This group from Newry came up with their project idea from the amount plastic bottles going into waste bins in their school. They did some research and discovered that people all over Ireland are buying bottled water – but is it really any better than our standard tap water and can you really notice the difference? The group investigated the microbiological quality of bottled and tap water and ran taste tests. They found that the quality of tap water in their area was just as good as bottled and that they people they tested couldn't tell the different in taste. Lastly they compared the cost of tap vs bottled water. They concluded that based on quality and taste tests, refilling your plastic bottle is the most environmentally efficient way of getting water. The group has presented their findings to their school and local community.

Junior Waste Category

Project Title: "Recycling"- An Idiots guide!

**Grosvenor Grammar School,
Cameronian Drive,
Belfast,
Co. Down,
BT5 6AX**



Following on from last year, this group from Grosvenor took an innovative approach to raising awareness and the importance of reducing, reusing and recycling waste. They developed a short film 'An idiots guide to recycling in school'. Pupils scripted, acted in and produced the film to encourage other pupils to use recycle bins correctly through a fun approach. This was then shown to school assembly groups.

Junior Energy Category

Project Title: 'Our Way to Save the Planet'

**Glenlola Collegiate School,
Bangor,
Co. Down.**

The girls of Glenlola investigated alternative energy sources. They wanted to show that young people have a voice on local issues with global effects. After networking with students in European schools to work together to promote awareness of alternative energy, they decided to study solar and biomass sources of energy. They carried out experiments using different types of solar cells and planted three different types of willow trees, comparing the growth rate of each to determine the best to use for biomass energy. This led to a greater awareness and positive action being taken by other classes and groups in the school. The school has switched to 'green' energy, has started paper recycling and participated in National Tree Week while the school is south facing and solar panels have been installed. 700 willow trees are in the process of being planted in the school grounds.

Junior Air Category

Project Title: "How Rare is Fresh Air?"

**Banbridge High School,
Banbridge,
Co. Down.**

Banbridge High School students focused on gathering information on air pollution causes and effects and traffic levels and its contribution to air pollution. They carried out several experiments to determine air quality in their locality while conducting surveys of traffic and congestion on school routes and worked to develop a "walking bus" for students. Additionally they developed proposals for ways to facilitate students walking to school and cycle lanes for the local council. The group promoted their work through a poster display and included information on the benefits of walking and cycling to school on the school website and school newsletter.

Eco- Community Development Category

Project Title: 'Spirit of the Youth- Promoting environmental awareness'

**Jobstown Junior Estate Management Committee,
Housing Department, SDCC,
Tallagh, Dublin.**

This Junior Estate Management Youth Group in Jobstown, Tallagh decided to improve their area by building a garden. To start developing their ideas they undertook a short course in a local farm to up-skill in making their area look better. The group also visited the Botanic Gardens for guidance and inspiration. They developed sketches of their garden and then when the time was right for planting, got the whole community involved. They decided to dedicate their garden to young people in the area who have lost their lives, placing a commemorative stone in its centre. The project has not stopped at the garden; verges outside houses have been given a new look, they painted a mural, a community litter pick is planned. They are working with young people in other areas to develop a new garden in a different area of their estate.



Students from Scoil Mhuire, Athy
Overall Senior Winners of the YEA 2006
Project Title: 'Our local environment'



Websites, Further Reading and Associated Information

Eco-Schools Contact Details and Further Information

Web address for Litter Poster

http://www.wiganmbc.gov.uk/pub/beng/street_scene/street_scene_kick_litter.htm
<http://www.deq.state.va.us/recycle/littercam.html>
http://www.toronto.ca/ttc/garbage_campaign.htm
<http://www.nea.gov.sg/cms/eed/almakeyourchoice.jpg>
http://www.nea.gov.sg/cms/eed/Poster_Dont_Litter_small.jpg
http://www.nea.gov.sg/cms/eed/eng_poster1.pdf
http://www.toronto.ca/ttc/garbage_campaign.htm
<http://www.encams.org/publications/main.asp?cat=2>
<http://www.keepsotlandbeautiful.org/index.asp?pg=9>
<http://www.keepsotlandbeautiful.org/index.asp?lm=26&referralfrom=ksb>
<http://www.healthywaterways.org/PAGE040121PMDOOF9A.html>
<http://www.cheltenham.gov.uk/libraries/templates/options.asp?URN=2779&FolderID=0>
<http://www.ohiodnr.com/recycling/plantpride/csp.htm>
<https://www.warkscol.ac.uk/staffstudentzone/citizenship/tosser.html>
<https://www.warkscol.ac.uk/staffstudentzone/citizenship/tosser.html>
<http://www.hounslow.gov.uk/smartenup>
<http://www.grs.gov.hk/ws/Posters/html/clean2.htm>
<http://www.cityofsydney.nsw.gov.au/Environment/CleanHarbourPartnersLatestInformation.asp>
<http://www.cleanup.org.au/PDF/au/kimberleysample.pdf>
<http://www.kab.org/kabtoolbox/toolbox2.asp?id=373>
http://www.hillingdon.gov.uk/news/archive/2004/april/anti_litter.php
<http://www.rushcliffe.gov.uk/doc.asp?cat=105&doc=4712>

The Eco-Schools programme provides a simple framework to enable your school to analyse its operations and become more sustainable. By following the programme, your school will become a more stimulating place in which to learn, whilst reducing the environmental impact of the whole school on the community.

The scheme is rooted in a genuine desire to help children become more effective citizens by encouraging them to take responsibility for the future of their own environment.

Pupil involvement is a key part of the Eco-Schools programme. Having pupils engaged in the whole process, including monitoring, planning and decision-making, leads to genuine ownership of the programme and an increase in their sense of responsibility for the school environment and local area.

In Northern Ireland there are 17 delivery partners along with all 26 councils helping to assist schools in the process of gaining the awards and helping them work through the programme. The full list of partner contacts can be found on the website at the following address:

www.eco-schools.org.uk

Eco-UNESCO Contact Details and Further Information

ECO-UNESCO is Ireland's environmental education and youth organisation and affiliated to the World Federation of UNESCO Clubs, Centres and Associations, W.F.U.C.A.

ECO-UNESCO's aims to raise environmental awareness, understanding and knowledge of the environment among young people to promote the protection and conservation of the environment to promote the personal development of young people through practical environmental projects and activities.

ECO-UNESCO has run the Young Environmentalist Awards since 1999. It also runs activities, workshops and ECO clubs directed at young people through their schools, youth organisations, community groups or local authorities. For more info go to www.ecounesco.ie

For further information please contact:

Joanne Pender - YEA Coordinator
ECO-UNESCO, 26 Clare St., Dublin 2
Tel: 01 6625491 Fax: 01 6625493
E- mail: yea@ecounesco.ie or info@ecounesco.ie
Web: www.ecounesco.ie



Environmental Education Forum
c/o Northern Ireland Environment Link
89 Loopland Drive
Belfast BT6 9DW
Phone: (028) 9045 5770
Fax: (028) 9094 2151
E-Mail: eef@nienvironmentlink.org
Website: www.eefni.org.uk



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