

Going for **Green**

Support Pack



MANCHESTER
CITY COUNCIL

Introduction

The Going for Green support pack is aimed at providing support and information for teachers who are considering using Environmental Education in their lessons, classes and schools.

The pack is divided into themes that fit into schemes schools may already be involved in, such as the Eco-Schools Award Scheme and Healthy Schools Award scheme:

- Biodiversity and school grounds
- Energy
- Global perspectives
- Healthy living
- Sustainable travel and transport
- Waste management and litter
- Water.

Each section includes ideas for projects and lessons, people and places to visit, as well as further resources and web links. Where possible a contact is named within Manchester City Council or another organisation that is able to help.

Curriculum links are provided for Key Stage 2 and 3 and there is a section on running an environmental project for those of you who want to go really green!

There is a lot of excellent work being done both locally and nationally – people are a great resource, so use them!



Environmental Education

The Going for Green support pack is written in the context of agreements reached at the 'Earth Summit' in Rio de Janeiro in 1992 when the United Kingdom committed itself to 'Agenda 21'. The objective to promote sustainable development lies at the heart of solving the problems of the environment, which will be the greatest challenge facing our children and future generations.

Environmental Education enables pupils to assess and continually reassess their role within their environment, in both the context of local and global issues. Pupils need to understand the relationship between human activities and the environment, and the concept of sustainable development.

Sustainable development is about ensuring a better quality of life for everyone now and for generations to come.

This means meeting four objectives at the same time, in the UK and the world as a whole:

- Social progress that recognises the needs of everyone
- Effective protection of the environment
- Prudent use of natural resources
- Maintenance of high and stable levels of economic growth and employment.

Government Sustainable Development Strategy,
July 1999

Pupils may learn to care for, protect and develop the environment by responding to those challenges in a positive and responsible manner. If schools are to contribute to developing pupils' ability to make wise environmental decisions, they need to establish an Environmental Education Policy.

Guidance

Increasingly, schools will find that they need to redefine their work in Environmental Education and relate this to the newly developing Education for Sustainable Development (ESD). It should be noted that the two are not the same and that while the two approaches are distinct, the National Curriculum goes some way to bring them together:

The National Curriculum "should develop [pupils'] awareness, understanding, and respect for the environments in which they live, and secure their commitment to sustainable development at a personal, local, national and global level." From 'Values, Aims and Purposes of the Curriculum Handbook, 1999



Education for Sustainable Development (ESD)

Education for Sustainable Development (ESD) 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.

Education for Sustainable Development brings a context and a motivation to learning. Young people care about their future and about the kind of world they live in, but many feel powerless to change anything. A sense of powerlessness can lead to apathy and, at worst, destructive behaviour. Education for Sustainable Development can help pupils to develop the understanding, skills and values to contribute in a positive way, which enhance self-esteem and increase motivation.

From QCA website 2003

Education for Sustainable Development has grown out of Environmental Education and Development Education and is almost certainly taking place in your school. It has clear links with a number of curriculum subjects, notably geography, citizenship and science, and many other aspects of the curriculum, for example, literacy, numeracy, thinking skills and key skills.

In order to address the issues of EDS, the DfES launched the Sustainable Development Action Plan in September 2003 and revisited it in 2005/06.

The Action Plan is organised around four objectives:

- Education for Sustainable Development
- The environmental impact of the DfES and its partner bodies
- The environmental impact of the education estate
- Local and global partnership activity.

To download a copy of The DfES Sustainable Development Action Plan 2005/06 visit:

www.dfes.gov.uk/aboutus/sd/docs/
www.teachernet.gov.uk/sustainableschools

The Government's main sustainable development website is at

www.sustainable-development.gov.uk

The new Teachernet Sustainable Schools website was launched in summer 2006

www.teachernet.gov.uk/sustainableschools/

DEFRA's introduction to sustainable development:

www.defra.gov.uk/environment/sustainable/index.htm

Sustainable School Self-evaluation tool

s3 is a Sustainable School Self-evaluation tool for primary, middle and secondary schools. It has been designed for everyone involved in education – teachers, school leaders, pupils, governors, education authorities and parents. A whole-school approach to self-evaluation offers valuable opportunities to develop the skills and competencies everyone needs in order to become a sustainable school.

For more information or to download a copy visit:

www.teachernet.gov.uk/sustainableschools/tools/tools_detail.cfm?id=2



Links and resources

DEP

The Development Education Project (DEP) works with teachers to raise awareness of global issues in and through the National Curriculum by providing support, resources, information, project work, best practice frameworks and training. There is a well-stocked resource centre and opportunities to get involved with international projects.

Contact Jane Angel on 0161 921 8020

Email: info@dep.org.uk

www.dep.org.uk

Eco-Schools award Scheme

The Eco-Schools programme is an international award scheme that helps to promote environmental awareness and improve the school's environmental performance through whole-school action. It works as an environmental management system that links into many curriculum subjects. Themes of litter, waste, energy, transport, healthy living and school grounds are covered in the scaled award scheme from Bronze to the coveted 'Green Flag'.

The Environmental Education Officer at Manchester City Council can provide help and support for schools wishing to progress through the Eco-Schools award scheme.

Schools can register at: **www.eco-schools.org.uk**

Schools can also establish links with schools all over the world around the Eco-Schools themes by visiting: **www.eco-schools.org**

Manchester City Council

Manchester City Council can support your school with environmental education and Education for Sustainable Development (ESD) through guidance and advice from staff such as the Green City Team and Environmental Education Officers, and by providing schools with the opportunity to get involved with environmental campaigns and other initiatives.

Contact Gemma Lee on 0161 953 2760

Email: gemma.lee@manchester.gov.uk

or

Dianne Sakalas on 0161 953 2761

Email: d.sakalas@manchester.gov.uk

MEEN

Manchester Environmental Education Network (MEEN) gives advice, information and support to teachers on Education for Sustainable Development (ESD). MEEN organises a meeting each term for co-ordinators enabling them to share their experiences and meet with organisations that can support their work. There is a newsletter each term that is sent out to all schools in Manchester, and a directory that provides local and national contacts for all aspects of teaching Education for Sustainable Development.

Contact Raichael Lock on 0161 273 8881

Email: meen@gn.apc.org

www.meen.org.uk

Manchester Healthy Schools Partnership

The Healthy Schools awards scheme run by Manchester Healthy Schools Partnership aims to improve the education, health and wellbeing of schoolchildren and young people by supporting schools to become healthy learning communities. The scheme, called 'Going for Gold', involves the whole school community, and a team made up of representatives of the school manages the scheme.

Contact Vanessa Brown on 0161 882 2300

Email: vanessa.brown@manchester.nhs.uk

www.manchesterpublichealthdevelopment.org/mphds/healthy-schools.html



A checklist on Environmental Education provision.

Environmental Education provision is good when:

1. The school's ethos and values reflect a concern for the environment and for sustainable development.
2. The whole school community is involved in decisions about the indoor and outdoor environment, and participates in implementing those decisions.
3. There is a whole school environmental education policy, incorporating an action plan, which contributes to pupils' spiritual, moral, social and personal development.
4. There is a nominated member of staff to co-ordinate the policy and action plan.
5. All aspects of the taught and 'hidden' curriculum play a part in developing the necessary knowledge, understanding and skills of environmental education.
6. Teachers recognise that pupils' environmental entitlement depends on first-hand experiences.
7. There is regular monitoring and evaluation of the school's environmental performance.
8. There is a conservation plan for managing the whole school site.
9. The school is taking steps to reduce its energy consumption and water usage.
10. The school purchases environmentally friendly products and recycles used materials.
11. Fieldwork and school visits are planned to progressively develop pupils' environmental experiences.
12. The school is attempting to address the pollution and health and safety risks caused by travelling to school by car.
13. Displays around the school reflect the school's environmental initiatives and pupils' awareness and involvement.
14. The school takes part in environmental initiatives and participates in international schemes such as the European-wide Eco-Schools scheme.
15. The school belongs to local/national environmental organisations and has links to Local Agenda 21.
16. There are opportunities in the school development plan for staff and governor training in Environmental Education.

A teacher's guide to biodiversity and school grounds

By changing a small area in your school grounds into a wildlife garden you will be providing a valuable habitat for local wildlife. The wildlife garden will also be an outdoor classroom where you can discover the natural world and develop your understanding of environmental issues through first-hand experience.

Simply planting some native plants and providing attractive conditions for wildlife, such as insects and garden birds, to shelter and feed will increase the wildlife population.

Why not try growing some organic vegetables? Schools can send off for free seeds from Duchy Originals, and the HDRA (Henry Doubleday Research Association) has lots of ideas on organic gardens for schools

www.hdra.org.uk/schools_organic_network/intro.htm

This can be easily linked to Healthy Schools initiatives and kids love eating things they have grown themselves!



Activity and project ideas

Plant native species of trees, shrubs and hedgerows. These will help to attract a wide range of insects, birds and small mammals that feed on them. Choose species with berries or nectar-rich flowers (rowan or guelder rose), and that are characteristic of local semi-natural habitats (birch, oak, ash, alder, elm and willow).

Plant shrubs closely together in groups or as a hedge to provide living space and food for all sorts of wildlife. Native choices include hawthorn, blackthorn, wild rose, holly, hazel and elder.

Bird and bat boxes

With bird and bat populations decreasing, making bird and bat boxes is an excellent idea to help our flying friends live and breed. January and February are the ideal times to build the box for use in the spring. Make sure the boxes don't face the sun and are not exposed to the rain.

Bird and butterfly feeders

By providing food for birds and other animals you will help to attract them to your grounds where they can be watched and studied.

Different birds eat different foods in different ways and different places. Provide nuts, seeds, fat and kitchen scraps in feeders, trays and on the ground to allow for the various diets and feeding methods of many species, particularly in winter. Move feeding places occasionally to guard against predators, disease and unwelcome visitors such as rats.

Make a butterfly border of long-flowering, sweet-smelling, sun-loving plants such as buddleia (butterfly bush). Plant them in a sheltered sunny spot and arrange to have some plants in flower all year round. Moths are attracted to night-scented stocks such as honeysuckle and evening primrose.

Wet areas

Water is vital for all living things, and providing a source of water in your school grounds will increase the range of plants and animals that can survive there.

'Wild' corners

Undisturbed 'wild' areas where grass and wildflowers grow can provide valuable shelter and food for wildlife. Damp log piles create an ideal winter home for hibernating frogs, toads and newts.



Who to contact

**Jon Follows – Green City Project Officer
Green City Team
Manchester City Council**

Tel: 0161 234 1869

Email: j.follows@manchester.gov.uk

People to invite to your school

Manchester City Council Environmental Campaigns Team can provide support, guidance and information on a range of environmental issues.

Contact Gemma Lee on 0161 953 2760

Email: gemma.lee@manchester.gov.uk

Manchester City Council Park Warden Service

The Park Wardens organise and host a range of walks and talks with local schools to raise awareness and appreciation of the surrounding environment. These include bird and bat box making, nature trails, litter-picks and seasonal bulb planting.

www.manchester.gov.uk/leisure/parks/wardens

Groundwork, Manchester, Salford and Trafford – The School Grounds Development Project

Groundwork's School Grounds Education and Development Officer offers a Free School Grounds Development Toolkit to Manchester schools and can provide up-to-date information on funding.

Groundwork's team of landscape architects can transform ideas into professional drawings for school grounds improvements and manage contractors while the work is on site. They will work in partnership with the Education and Development Officer to undertake preliminary consultation.

Contact Holly Preston on 0161 220 1000

Email: education@groundwork.org.uk



Places to visit

Manchester City Council parks

Ideal places to visit are Chorlton Water Park, Wythenshawe Park, Debdale Outdoor Centre and Heaton Park, which all offer a park warden service.

www.manchester.gov.uk/leisure/parks/wardens

Mersey Valley, Medlock Valley and Irk Valley

Mersey Valley Countryside Warden Service offers free educational visits to schools.

Contact: Andy Martin

Tel: 0161 905 1100

Email: a.martin@manchester.gov.uk

www.merseyvalley.org.uk

Wythenshawe Park

The Horticultural Centre exists to educate and provide enjoyment. The Safari Walk is lush with plants used commercially, and includes banana, pineapple, tea, coffee and rice, interspersed with ornamental subjects. The sound of rushing water and the bird calls combine to complete the impression of a path through a rain forest. Talks and demonstrations are available.

Tel: 0161 998 2117

www.manchester.gov.uk/leisure/parks/

Red Rose Forest

Red Rose Forest partnership hosts over 80 fun summer events and Forest Fever activities for kids (most of which are free!) such as garden workshops, bug hunts, pond dipping and adventure days.

Tel: 0161 872 1660

www.redroseforest.co.uk

Leigh Environmental Education Centre

One-day programmes for KS2 to Post 16 run by United Utilities.

Outdoor activities include studying lifecycles and habitats, pond dipping, hunting for mini-beasts and seasonal observations, as well as presentations on the water cycle and water conservation.

Free to schools in the north west: to arrange a visit call the **Education Officer on 01942 601114**.

Eureka! The Museum for Children

The Museum covers a range of issues including 'Our Global Garden' based on the Global Environment for Foundation level and Key Stage 1–2 learners.

www.eureka.org.uk



Resources

www.arkive.org search for your favourite animal or plant and find out whether they are endangered, with an excellent separate education resource site.

www.arkiveeducation.org. The website features lesson plans, support materials, curriculum links and project ideas.

www.record-lrc.co.uk/?Mod=Article&ArticleID=45 This website features many free and photocopiable worksheets – from mini-beast hunts to butterfly identification.

www.gmbiodiversity.org.uk
This site hosted by Greater Manchester Biodiversity Project gives local information about what's happening in Greater Manchester and links to local groups.

www.internt.nhm.ac.uk/eb/index.shtml loads of interesting information about wildlife and nature conservation from the National History Museum in London. Includes lesson plans and a database to compare areas in the UK by postcode.

www.naturedetectives.org.uk
The Woodland Trusts Nature Detectives site. Loads of useful identification sheets, activities and games around biodiversity and phenology.

Free trees for schools

www.woodland-trust.org.uk/hedge/
Register to receive either a hedge or a copse pack for free.

www.english-nature.org.uk/science/nature_for_schools/ More than 100 lesson plans meeting the requirements of the National Curriculum.

Activities and information to help pupils understand nature and our impact on the natural environment.

Over 500 links to other websites providing educational resources.

www.wildaboutmanchester.info./
Wildabout Manchester is the Council's dedicated site to raise awareness of the wildlife found in Manchester and ways you can get involved in various projects and campaigns.



Curricular links

English

- Report the outcomes of surveys on species of birds/plants in the school grounds
- Debate issues, planning campaigns and activities, and reviewing successes of the use of the school/community open spaces
- Play scripts, stories and dramatic performance to persuade others to look after their environment and instil a sense of shared ownership.

Maths

- Bird/plant survey in school grounds
- Put collected information into tables, graphs and charts.

ICT

- Database creation and maintenance
- The data created by surveys can be used in ICT to explore ways of presenting and handling data.

Science

- Link to work on growth and living things
- Devise tests for conditions for growth
- Research into feeding preferences of birds and/or mini-beasts
- Look at habitats.

Art and Design & Technology

- In Art and Design & Technology pupils can produce signs, posters and stickers to place around the schools, encouraging care of wildlife and the environment
- Design and making-up of bird and bat tables or nesting boxes.

Geography

- Make plans and maps of the school grounds.

History

- Research into endangered species and the future of threatened wildlife.

Citizenship/PSE

- Active citizenship and the whole school-based approach to sustainable use of open space can support pupils' activities to explore their own personal responsibilities and the environmental outcome of their decision and actions
- Pupils can be encouraged to put their ideas into practice through setting up action groups and clubs.

A teacher's guide to energy efficiency and renewable energy

Renewable energy, sustainability, climate change and the greenhouse effect are addressed in the National Curriculum. It is important that young people are aware of their impact and how other things impact on the environment, as well as how they can play their part in energy efficiency at school and home.

Projects based on energy efficiency and generating energy from renewable resources can lead to topics such as climate change, environmental pollution, energy use and production, and transport. There is a wealth of excellent resources available at all key stages.

Energy projects are a good introduction to the theory and practice of education for sustainable development, because:

- Pupils can translate general concerns about the environment and citizenship into practical action, both within school and at home throughout the year
- Energy consumption can be measured, so improvements in energy efficiency can be identified and turned into cash savings at school and home
- Pupils and staff can gain a better understanding of their environment and how their actions affect others
- Projects on renewable energy can lead to the generation of renewable energy at school and the understanding of the science behind energy generation and use.

In the National Curriculum handbooks published by DfES, curriculum statements about energy are allocated to one or more of four traditional themes: sound, light, heat and combustion, and electricity.



Activity and project ideas

Energy projects can be split into two main types: using energy more efficiently, and looking at generating renewable energy.

Energy survey

Core to the projects is an energy survey, followed by the introduction of measures to reduce energy use, and then checking to see what savings have been made. The data created by energy surveys can be used in ICT to explore ways of presenting and handling data. The Energy Management Team can offer help and advice on energy audits and how to interpret the data collected.

Advertising

In Art and Design & Technology pupils can produce signs, posters and stickers to place around the school to encourage teachers and pupils to be energy efficient. Reporting savings on school bills at assembly or PTA meetings is a good way of getting the head teacher and caretaker on board.

Global dimensions

Ideas such as the global interdependence and the inequality of energy use and consumption, as well as themes of energy as a finite resource and sustainable development can be explored. Exploring the impact that climate change has, and will continue to have, on biodiversity, weather patterns and sea level rise etc, is especially relevant to geography and science.

How we used to live – and the future

Comparative activities, such as how schools and homes were warmed in Victorian times, and future scenarios relating to how to generate power in the year 2050, are potential projects.

Citizenship and PSHE

Active citizenship and the whole school-based approach of sustainable energy use can support pupils' activities to explore their own personal responsibilities and the global environmental outcome of their decision and actions. Pupils can be encouraged to put their ideas into practice through setting up action groups and clubs on environmental issues such as energy.



Who to contact

Energy Management Unit

Your school may be using the services of Manchester City Council's Energy Management Unit. The Unit can provide specific information about your school's energy and water consumption, as well as offering advice on the most likely areas where savings may be possible. The Energy Management Unit can be contacted through:

Walter Dooley
Energy Management Unit
Chief Executive's Department
Room 9029
Manchester City Council

Tel 0161 234 3633

Fax 0161 236 0357

Email: w.dooley@manchester.gov.uk

Manchester City Council's Energy Group

The Energy Group manages the Greater Manchester South Energy Efficiency Advice Centre (GMSEEEAC). The Advice Centre is funded by the Energy Saving Trust on behalf of the Government, and its purpose is to raise awareness about energy efficiency and give advice on grants and discount schemes. GMSEEEAC works with schools in Manchester to promote energy efficiency, giving presentations to primary school children and giving prizes for colouring competitions.

Maggie Bennett
Tel: 0161 242 5824
Email: m.bennett@manchester.gov.uk

People to invite to your school

Energy Management Unit and Energy Group
Manchester City Council

Maggie Bennett
Tel: 0161 242 5824
Email: m.bennett@manchester.gov.uk

The Green Roadshow and Croissant Neuf Circus

A mobile Eco-Centre and solar-powered circus. Educational and teacher's packs for five to seven and seven to 11-year-olds are available to help you get the most out of the show.

www.greenroadshow.co.uk



Places to visit

Manchester City Council's Eco-House

The Manchester Eco-House in Miles Platting is kitted out with simple, everyday examples of how to reduce the energy you use. From low-energy light bulbs to solar-powered hot water, from garden composting to recycling and water-saving devices, get expert money-saving tips, and find out about grants and discounts.

If you would like to explore the Eco-House, call 0161 242 5805.

www.manchester.gov.uk/housing/energy/eco.html

The Alternative Technology Centre

Offers tours with examples of solar and wind energy in action, including solar panels and wind turbines. There is an interactive energy room for pupils as well as recycling workshops.

www.alternativetechnology.org.uk

The Centre for Alternative Technology (CAT)

Provides examples of solar and wind energy in action and talks linked to the National Curriculum.

www.cat.org.uk

Leigh Environmental Education Centre

KS2 one-day programmes on Sustainable Energy. Book well in advance. Contact Jackie O'Reilly on 01942 604057.

www.unitedutilities.com/education



Resources and case studies

www.pluggingintothesun.org.uk

This project has developed a solar car kit as an educational resource; it explains how energy from the sun can be used to power electrical devices. Demonstrations can be arranged in schools.

www.create.org.uk

An excellent interactive website for pupils and downloadable lesson plans, resources for teachers in the Teachers Zone and Kids Zone. Ideas and funding opportunities for schools setting up renewable energy projects. EnergyZone is a guide for teachers to the location of energy-related topics in the National Curriculum for England. Downloadable brochures are **available at www.energysavingtrust.org.uk**

The Energy Saving Trust has, new for 2004, an Energy Certification scheme for schools, including the School Energy Policy, to raise the profile of energy within schools. Information on writing a policy is included.

www.sustainablelearning.info/

Your school can take back control of its energy and water use, reduce costs and make a difference by demonstrating citizenship, stewardship of finite resources and reducing the school's environmental impact. Simple methods and activities can be free to implement and can be a great way to make a start. This site will help you to take these steps by breaking these actions down into a number of more manageable tasks.

United Utilities Education Liaison Service

Downloadable education resources divided into key stages. Free teaching packs, videos and teacher inset days.

Tel: 01257 427875 for more information.

www.unitedutilities.com/education

www.think-energy.com/ThinkEnergy/Default.aspx

Lots of websites for pupils and teachers to explore, as well as activities and ideas.



Funding opportunities for schools

Energy-saving grants available

The Department for Trade and Industry (DTI) is offering grants to schools and other public sector buildings for the supply and installation of energy-saving and low-carbon equipment known as microgeneration technology. This includes:

- Solar thermal hot water
- Wind turbines
- Ground source heat pumps
- Automated wood pellet stoves
- Wood-fuelled boiler systems.

Receiving one of these grants from DTI offers Eco-Schools the ideal opportunity to:

- Link global issues into the curriculum
- Reduce fuel bills
- Lessen carbon emissions
- Meet targets laid out in their Eco-Committee Action Plan
- Help schools work on different Eco-Schools themes, such as water, energy and global perspective.

For further information on the DTI grants, please visit www.lowcarbonbuildingsphase2.org.uk

Other grants available

Don't forget, all registered Eco-Schools in England are eligible to apply for a grant from Curry's as part of the company's Switched on Communities programme. The grants will help schools progress to the next award level of Eco-Schools.

Grants will be awarded in significant enough sums to allow positive change and development within a school, up to a maximum of £5,000. Priority will be given to projects that clearly demonstrate an energy-efficiency element or identify technology solutions to environmental improvements.

For further information on grants from Curry's visit:

www.eco-schools.org.uk/switched_on/index.htm

Case study of Cassop School – the first wind-powered school in the UK.

www.cassopschool.org.uk

Manchester Green City

For information on local case studies, policies, projects and events on making Manchester the Greenest City in Britain, go to: www.manchestergreencity.co.uk



Curricular links

English

- Report the outcomes of energy surveys and how to change people's behaviour through the media and advertising, and by debating issues pupils can plan campaigns and activities and review success
- Play scripts and stories to encourage energy efficiency at school and home
- Dramatic performance on controversial topics, such as the location of wind farms in local communities can inspire thoughts and feelings about renewable energy.

Maths

- Carry out an energy survey followed by the introduction of measures to reduce energy use and then checking to see what savings have been made. Energy surveys can be used with a class to explore a specific area of school and each class can study a different area. Survey data can be combined to compare different areas of the school and to complete a picture of the whole school
- Put information collected into tables and graphs
- Cost use of energy and working out savings.

ICT

- The data created by energy surveys can be used in ICT to explore ways of presenting and handling data
- Use computer-controlled sensors (light/sound/temperature) to collect information on energy use in different areas of the school.

Science

- Energy transfer in the school building, how energy is used and wasted can be mapped in the energy survey
- Scientific approaches to answering questions on how to save energy through insulation
- Research into the cost of energy
- Other sources of energy, such as fossil fuels and renewable forms of energy can be studied.

Art and Design & Technology

- In Art and Design & Technology pupils can produce signs, posters and stickers to place around the schools, asking pupils and teachers to turn off lights and shut windows.

Geography

- Ideas, such as the global interdependence and the inequality of energy use and consumption, as well as themes of energy as a finite resource and sustainable development, can be explored.
- Issues of global warming and the greenhouse effects on environments, climate and biodiversity are especially relevant.

History

- Research into how schools and homes were warmed in Victorian times and looking at future scenarios relating to how to generate power in the year 2050
- Compare the cost and amount of resources used in different periods.

Citizenship/PSE

- Active citizenship and the whole school-based approach of sustainable energy use can support pupils' activities to explore their own personal responsibilities and the global environmental outcome of their decision and actions
- Pupils can be encouraged to put their ideas into practice through setting up action groups and clubs on environmental issues and energy.

A teacher's guide to the global perspective

Young people need the knowledge, skills, values and attitudes that will enable them to participate as full members of a global society. As global citizens, they need to consider rights and responsibilities and issues of fairness, and the role of citizens in a democratic society. This means they need to learn about aspects of national and international law and politics, for example human rights legislation, and Agenda 21.

Young people also need to engage in the global dimension to topical issues that affect them, such as global warming, migration, the arms trade, and the prices of goods in the shops. They need to be able to assess the information that they receive via the media and to understand their consumer rights and responsibilities and thereby make informed decisions as consumers, employees and later employers. Students can also learn about democracy by studying forms of government, political and justice systems nationally, from Europe, and globally. You might consider introducing perspectives from other parts of the world to aid children's learning.

Citizenship, in its context of fair decision-making, runs throughout the Eco-Schools process. This global perspective topic seeks to ensure that pupils also consider the environmental, social and economic impacts of the decisions they make through this process on the local and global community, in the future as well as the present.

Activity and project ideas

Sharing ideas

Creating email links with schools in different parts of the world through the Eco-Schools itinerary project.

www.eco-schools.org/projects/linking.htm

Mapping fair trade products

Look at fair trade products, map where they or their ingredients come from, and discuss why products come from these places and why buying fair trade is important. For lessons on fair trade visit:

www.oxfam.org.uk/coolplanet/

Simulations and role play

Ask the children to take on different roles within fair trade situations. For example, a group or individual can play the role of the farmer; another can be the buyer, the supermarket etc.

The lives of other children

Explore the lives of children from different countries around the world through the exciting photo stories!

www.oxfam.org.uk/coolplanet/kidsweb/children.htm



Who to contact

Development Education Project (DEP)

The Development Education Project (DEP) works with teachers to raise awareness of global issues in and through the National Curriculum by providing support, resources, information, project work, best practice frameworks and training. There is a well-stocked resource centre and opportunities to get involved with international projects.

The Resource Centre in Didsbury has over 2,000 resources for teachers.

Go and visit in person or check out the online catalogue: www.dep.org.uk/bookshop/index.php

Opening times:

Tuesdays, Wednesdays and Thursdays from 12 noon–5.30pm or by appointment

Jane Angel

DEP

c/o The Manchester Metropolitan University

Laurel Cottage

799 Wilmslow Road

Didsbury

Manchester M20 2RR

Tel: 0161 921 8020

Email: info@dep.org.uk

www.dep.org.uk

Global Action Plan

Global Action Plan is an independent environmental charity working across the UK with 18 partners operating worldwide. They are committed to encouraging the public to be more environmentally sustainable. Working with business, schools and local communities, they believe that every little helps to make a real difference.

Global Action Plan's Action at School programme helps schools to reduce resource use, save money and create new educational opportunities through the involvement of the whole community. The programme helps schools to reduce waste, use energy more efficiently, save water and cut the number of car journeys to school.

Tel: 020 7405 5633

Email: schools@globalactionplan.org.uk

www.globalactionplan.org.uk

Oxfam

Oxfam promotes and supports education for global citizenship throughout the UK. Oxfam believes it is essential that young people have the knowledge, understanding, skills, values and attitudes to participate effectively as global citizens. They believe this enables and encourages them to challenge poverty and injustice, and take effective action for change.

Oxfam provides excellent educational resources to support a cross-curricular, global approach to teaching and learning in primary and secondary schools. These resources use participatory approaches to develop skills, values and attitudes, such as thinking skills and building empathy. Many of these resources explore sustainable development and environmental issues.

On Oxfam's website for teachers, there are downloadable resources and information, and an online catalogue of over 400 education materials. The materials in the catalogue are produced by a wide range of organisations, including Oxfam.

www.oxfam.org.uk/coolplanet/

Teachers In Development Education (TIDE)

Teachers In Development Education (TIDE) is a network of teachers responding to global dimensions in education.

www.tidec.org



Who to contact

The GLOBE Programme

The GLOBE Programme is an international environmental education project for schools, where children collect scientific data on their local environment and make it available over the internet. Over 400 GLOBE schools in the UK link with thousands more in over 100 countries around the world.

GLOBE students collect data about weather and climate, waters, soils and land cover. Maps and graphs are produced online from the GLOBE database, providing insights into the planet as measured by its children. GLOBE-UK's Sustainable Development activities, linked to the National Curriculum, provide a unique way for children to measure their own progress towards sustainability, in areas including waste, energy, water, transport and biodiversity.

Tel: 024 7663 9663

Email: admin@globe.org.uk

www.globe.org.uk



Water in the School Website

Water in the School Website **www.waterintheschool.co.uk** provides everything you require to set up and run a water conservation project in your school. Designed for KS2 and KS3 pupils and their teachers, the key aims of the site are to:

- encourage schools to monitor their water use
- introduce changes that will conserve water and so save money
- foster responsible attitudes to water use in the pupils
- encourage the pupils to apply their knowledge and understanding to global water and environmental issues.

Suggested activities will enrich many areas of the curriculum including:

- literacy and numeracy
- key skills
- citizenship
- maths
- science
- design and technology
- ICT
- geography.

For details of regional water companies visit **www.waterintheschool.co.uk**

The following portals may also help you to find more information:

- Citizenship education: the Global Dimension **www.citizenship-global.org.uk**
- Global dimensions **www.globaldimension.org.uk**

People to invite to your school

International Co-operative Solutions

Jo has extensive experience working in all kinds of schools, working with staff at all levels, and pupils of all ages and abilities. She has delivered one-off assemblies and lessons, whole school policies and training programmes, and specialises in fair trade, food, travel and tourism, sustainability, the environment, co-operation and co-operatives, small businesses, bullying and conflict resolution, and the Middle East, including Israel and the Palestinians.

She works freelance and her fees are negotiable.

Jo Bird

Freelance consultant

Tel: 0161 257 3192 / 0797 007 5704

Email: jobird@cooptel.net

www.jobird.net



Resources

www.citized.info

citizED is an organisation funded by the Training and Development Agency for Schools (TDA). It is a collaboration within higher education for all providers of initial teacher education in England.

citizED is organised principally around teacher education in primary, secondary, cross-curricular, post-16 and community involvement contexts, with outputs in the form of conferences, seminars, workshops, research papers and practical resources for teaching.

www.dea.org.uk

The Development Education Association (DEA) is a national network of some 250 member organisations that share a commitment to development education. There is access to a range of DEA resources that offer guidance and support for developing global perspectives and delivering development education.

www.foe.co.uk/learning/educators/index.html

Friends of the Earth website with tips, resources and links.

www.globaldimension.org.uk

The Global Dimension website has a helpful guide to books, films, posters and websites with a global dimension. From climate change to poverty, water to fair trade, you can find resources for all age groups and subjects.

www.oxfam.org.uk/coolplanet/mappingourworld/

Mapping our World is a new whiteboard resource consisting of nine fun activities all about maps, globes and how we view the world. It is designed to fit the Geography curriculum but is also suitable for areas of ICT, Citizenship, PSE and Environmental Studies

Curricular links

English

- Debate issues, planning campaigns and activities around global issues such as fair trade
- Investigate issues associated with current affairs around the world, such as war, famine, disease and migration
- Question and answer sessions with pupils' relatives from different parts of the world
- Role play as a way of presenting opinions.

Maths

- Look at statistical information about different places in the world – population, disparities in resource and wealth.

ICT

- Create email links with schools in different parts of the world through the Eco-Schools itinerary project

www.eco-schools.org/projects/linking.htm

Science

- Explore various habitats across the world and the variety of species in those habitats
- Look at reversible and irreversible changes in relation to the destruction of rainforests and various other habitats
- Sensitive explore issues such as global warming and climate change.

Art and Design & Technology

- Use textiles, dress and artefacts from around the world as inspiration for artwork.

Geography

- Look at fair trade products and map where they or their ingredients come from and discuss why products come from these places and why buying fair trade is important.

History

- Investigate why people seek asylum, refugees throughout history, and related topics such as conflict and safety
- Research how people kept themselves clean, and sanitation.

Citizenship/PSHE

- Active citizenship and the whole school based approach of sustainable use of resources can support pupils' activities to explore their own personal responsibilities and the global environmental outcome of their decisions and actions
- Encourage children to become active citizens by questioning and challenging global inequalities.

A teacher's guide to healthy living

The state of our health is related not only to our long-term physical wellbeing, but also to emotional and social factors: our general happiness, confidence and outlook on life. There is also a clear relationship between health and educational attainment. Poor health works against educational success, and educational attainment strongly affects social and economic prospects and choices about health.

Recent data (2002) relating to the health and health-related behaviour of schoolchildren aged 11–15 years in England found:

- One in three (33%) report feeling low each week
- Over half of students (56%) do not meet the recommended level of physical activity for at least an hour a day, five days a week
- Under three in ten students (27%) eat fruit or vegetables daily
- 16% of students are smokers. Girls are more likely to smoke than boys and the prevalence of smoking increases with age so that by the age of 15, 34% of girls and 28% of boys smoke
- One in three students (34%) have been bullied at least once in the past couple of months.

Healthy schools

In order to be healthy, children and young people need a family, a home, a school, some friends, somewhere to play, a future and access to effective prevention, treatment and support services.

Schools play a significant role in a number of ways. It has been estimated that children spend on average of 15,000 hours at school. School years are an impressionable period in the lives of young people, and most pupils will at some stage be subjected to a range of social pressures that may affect their health, from bullying and the stress of exams, to peer pressure to experiment with smoking or drugs. Schools therefore are key settings in which to promote the health and wellbeing of young people and the wider community.

Schools can:

- Provide pupils with structure, and consistency, and within opportunities for social engagement managed and in its culture and ethos.
- Influence the quality of the meals served within the

canteen and provide healthier options for pupils through tuck shops or vending machines.

- Encourage pupils and staff to be more physically active both in and out of school.
- Help equip pupils with the knowledge, skills and attitudes that provide springboards to future long-term health.
- Provide a range of emotional support and create a supportive, safe environment that will provide pupils with the confidence to learn.
- Actively promote health through the curriculum, in the way the school is managed, and in its culture and ethos.

National Healthy School Standard

The National Healthy School Standard (NHSS) combines the school improvement process of consultation, needs identification, target setting, action, monitoring and evaluation together with a national framework of standards promoting a whole school approach to addressing specific health themes within the school setting. The programme also levers in additional support from external agencies to further enhance a school's capacity to promote the physical, social and emotional health and wellbeing of the whole school community, as well as pupil confidence to learn. A Continuing Professional Development (CPD) programme for the certification of teachers and community nurses in Personal, Social and Health Education (PSHE) is also integral to the programme.

Every local education authority in England is involved in working in partnership with colleagues in health to provide services and support for schools through a local healthy schools programme.

The local programmes support schools to address a whole school approach to a range of specific health themes, such as sex and relationship education, physical activity, healthy eating, drug education, safety, emotional health and wellbeing, PSHE and citizenship. All schools in England have access to the services and support of a local healthy schools programme. To find out more about the specific support provided locally, contact your local healthy schools programme co-ordinator, whose contact details are available via the Wired for Health website:

Website: www.wiredforhealth.gov.uk

Activity and project ideas

Healthy eating survey

Pupils can create a questionnaire or survey about healthy eating and exercise and ask all pupils to complete it.

Waste-free lunch

Once a week, month or term, the whole school could have a waste-free lunch. This promotes healthy eating, as fruit and vegetables are not packaged but most snacks and sweets are. This also helps pupils to think about how much waste they produce and how they can take responsibility for it. It also links to composting, as they may decide this is what they would like to do with their organic waste.

Posters promoting health eating and exercise

Pupils can design posters promoting healthy eating and exercise and place them around school to encourage their fellow pupils to think about their health.

Citizenship and PSHE

Active citizenship and the whole school-based approach of sustainable energy use can support pupils' activities to explore their own personal responsibilities and the global environmental outcome of their decision and actions. Pupils can be encouraged to put their ideas into practice through setting up action groups and clubs on environmental issues such as energy.

Who to contact:

Healthy Schools

Manchester Healthy Schools Partnership

The Healthy Schools Awards Scheme run by Manchester Healthy Schools Partnership aims to improve the education, health and wellbeing of schoolchildren and young people by supporting schools to become healthy learning communities. The scheme – called 'Going for Gold' – involves the whole school community and a team made up of representatives of the school managing the scheme.

Manchester Healthy Schools Partnership

Vanessa Brown

Mauldeth House

Mauldeth Road West

Chorlton

Manchester

M21 7RL

Tel: 0161 882 2300

Email: vanessa.brown@manchester.nhs.uk

www.manchesterpublichealthdevelopment.org/mphds/healthy-schools.html



Resources

Focus – ESD

Oxfam

Oxfam Resources for Schools 2007

Oxfam, Dept EDC07, c/o BEBC Distribution, PO Box 1496, Parkstone, Poole, Dorset BH12 3YD

Tel: 01202 712933

Email: oxfam@bebc.co.uk

www.oxfam.org.uk/publications/

Focus – food/ESD

Growing Schools

The Great Vegetable Challenge

Email: growing.schools@dfes.gsi.gov.uk

www.teachernet.gov.uk/growingschools/

Focus – food/ESD

Growing schools

Growing schools garden

Email: growing.schools@dfes.gsi.gov.uk

www.teachernet.gov.uk/growingschools/

Focus – all healthy schools themes

Groundwork

School Grounds Development Toolkit

Timber Wharf, 42–50 Worsley Street, Castlefield, Manchester M15 4LD

Tel: 0161 220 1000

Email: education@groundwork.org.uk

www.manchester.groundworknw.org.uk/

Focus – food

DfES/Healthy Schools/NHS

Food in Schools Toolkit

DH Publications, PO Box 777, London SE1 6XH

Tel: 08701 555 455

Email: dh@prolog.uk.com

www.foodinschools.org

Focus – food

www.foodafactoflife.org.uk

Downloadable teacher resources, interactive learning activities

Focus – food

www.food.gov.uk

Search for 'Eat Smart, Play Smart' lesson plans and homework tasks

Focus – food

www.eatwell.gov.uk

Good selection of games for children around healthy eating

Focus – food

www.welltown.gov.uk

KS1 age appropriate info sites for young people

Focus – food

www.galaxy-h.gov.uk

KS2 age appropriate info sites for young people

Focus – food

www.lifebytes.gov.uk/indexmenu.html

KS3 age appropriate info sites for young people

Focus – food

www.mindbodysoul.gov.uk

KS4 age appropriate info sites for young people

Also our resource library, which anyone involved in health practice can use.

www.manchesterpublichealthresources.nhs.uk

www.manchesterpublichealthdevelopment.org

Curricular links

English

- Report the outcomes of surveys on how children travel to school
- Debate issues, planning campaigns and activities, and reviewing successes of healthy eating campaigns
- Play scripts and stories to persuade other pupils to walk to school and take part in more activities
- Dramatic performance to persuade parents to walk or cycle with their children to school.

Maths

- Carry out health surveys about what pupils eat and the amount of exercise they do
- Put data collected into tables and graphs to analyse results
- Cost travel and working out savings from alternative transport uses, such as walking and cycling.

ICT

- The data created by a health survey can be used in ICT to explore ways of presenting and handling data
- A database can then be created from the health survey.

Science

- Look at how a bicycle works and linking this to work on forces
- Devise tests for different bike tyres – stopping distances on different surfaces
- Research into alternative forms of transport
- Links to healthy living – exercise, looking after your body.

Art and Design & Technology

- In Art and Design & Technology pupils can produce signs, posters and stickers to place around the schools, encouraging healthy eating and exercise.

Geography

- Map routes to school
- Look at use of transport eg. for shipping goods from abroad and linking this to fair trade goods.

History

- Compare the health of people now and in the past.

Citizenship/PSE

- Look at developing the school grounds to increase health; use of equipment and activities or a vegetable patch
- Pupils can be encouraged to put their ideas into practice through setting up action groups and clubs on health issues.

A teacher's guide to sustainable travel and transport

The journey to and from school is an important part of children's learning about the environment and promotes links with the community. Schools should use the whole environment (the school and local community) to enrich the learning experience for pupils. This can include:

- Promoting safer routes to school, cycle training, responsible car use and road safety
- Encouraging pupils to use alternative transport, such as walking buses, cycle trains, park and stride schemes
- Promoting car sharing of school runs for parents and teachers.

School Travel Plans

This project run by the School Travel Advisers at Manchester City Council aims to enable children to walk and cycle to and from school through the introduction of area-wide traffic-calming and the creation of safer walking and cycling networks. In addition, the physical exercise can improve children's health, the environment and safety around schools can be improved because of less traffic, and children learn sustainable travel habits. These are supported by school-based education and training programmes.



Activities and project ideas

Produce a School Travel Plan

Get the whole school involved in travelling sustainably by writing a Travel Plan with help from the Council's School Travel Advisers. Your school could also receive a grant of approximately £5,000 for a primary school and £10,000 for a secondary school on completion.

Incentives for walking/cycling to school

Join in with the Council's 'Green Miles' competition and 'Miles Further' scheme. Produce posters giving ten good reasons for walking/cycling to school. A poster competition could tie in with the national Walk to School Week in May.

Pupil questionnaires and mapping routes

A diary tick sheet and travel-to-school surveys can be used to review how pupils currently travel to school, what problems they encounter and how they and their parents can be encouraged to use greener transport methods. Pupils can draw up their own surveys or use the Department for Transport's. This can be used to develop database ICT skills and form a display presentation, including a car-sharing database.

Leaflets

Produce leaflets for parents/carers outlining the problems and offering suggestions on how they could reduce the problems, such as car sharing and staggered pick up and drop-off times.

Walking buses and cycle trains

Walking buses can be an informal arrangement for parents to walk children to school – or more formally, children and parents can develop routes and prepare timetables. Walking buses can be linked to the Kerb Craft Scheme and cycle trains can be linked to the National Standard cycle training. Rewards can be offered to encourage participation, and the Council's School Travel Advisers can help in setting these up.

Secure cycle provision and lockers, and reflective school uniforms

Pupils can campaign for and organise fund-raising events (such as a sponsored cycle) to buy secure bike sheds etc, lockers for cyclists and reflective school uniforms, and this can be incorporated into the School Travel Plan. Schools can receive a grant on completion of a School Travel Plan, which can pay for cycle storage at school.

Bike clubs

After-school activities could include bike clubs for maintenance and sporting events, BMX biking, extreme sports etc.



Who to contact

For more information about School Travel Plans, road safety and a Teachers Guide to School Travel Plans, contact:

Kathy Collins (School Travel Adviser)
Transport Policy Unit
Chief Executive's Department
Room 308
Manchester City Council
Manchester M60 2LA.

Tel: 0161 234 4312
Fax: 0161 236 6459
Email: k.collins1@manchester.gov.uk

People to invite to your school

School Travel Advisers

Contact Kathy Collins on the number, above.

Greater Manchester Police

To request a school visit from a police officer, ask for your community affairs representative at your nearest police station. They will, if feasible and a resource is available, arrange for an officer to visit your school.

Road Safety Officers and cycle training

Manchester Road Safety Officers have regular contact with schools throughout the city, and operate a support service for schools, assisting teachers and pupils alike.

Contact the Road Safety Team on 0161 234 4490.



Places to visit

Greater Manchester Museum of Transport

The Museum of Transport has the biggest collection of beautifully restored vintage buses and coaches in the United Kingdom. There are over eighty buses dating from 1890 to 1980, mainly from the north west of England. The Museum is open every Wednesday for school parties. They can cater for any party up to a hundred, but this does depend on you booking first! Class visits needn't be expensive. All pre-booked visits are free.

Tel: 0161 205 2122

www.gmts.co.uk

Museum of Science and Industry

KS2-taught lessons and KS3 guided tours on themes such as the coming of the railways. Contact the

Education Team for bookings on 0161 833 0027.

www.msim.org.uk/education.asp

Manchester Canals

Rochdale, Bridgewater and Ashton Canal and Pennine Waterways

Information, maps and guides about all Manchester's waterways are available online at

www.penninewaterways.co.uk/manchester

Resources

www.databases.dft.gov.uk/schools

A catalogue of information and other relevant resources relating to encouraging greater use of walking, cycling, public transport and car sharing for school journeys.

www.dingding.org.uk

An interactive website with lots of ideas for younger children.

www.kerbcraft.org.uk

Child pedestrian training; this is a pilot scheme being run in Manchester.

www.manchester.gov.uk/roadsafety

Information about Manchester City Council's road safety unit.

www.cyclegm.org

Cycle maps and information for all areas in Greater Manchester.

www.thinkroadsafety.gov.uk

Links to the Department for Transport's Road Safety Strategy and Child Road Safety Campaign.

www.saferoutestoschools.org.uk

The Sustrans national Safer Routes to Schools information, including free resources for teachers.

Tel: 0117 915 0100

Email: schools@sustrans.org.uk



Curricular links

English

- Report the outcomes of surveys on how children travel to school
- Debate issues, planning campaigns and activities and reviewing successes of travel plans
- Play scripts and stories to persuade other pupils to walk to school and parents to share cars to work
- Dramatic performance to persuade parents to share cars in the school run.

Maths

- Carry out travel surveys about how pupils travel to school and use of the car at weekends
- Put data collected into tables and graphs to analyse results
- Cost travel and working out savings from alternative transport uses, such as buses, trams and trains.

ICT

- The data created by a travel survey can be used in ICT to explore ways of presenting and handling data
- A database can then be created from the travel survey.

Science

- Look at how a bicycle works and linking this to work on forces
- Devise tests for different bike tyres – stopping distances on different surfaces
- Research into alternative forms of transport
- Links to healthy living – exercise, looking after your body.

Art and Design & Technology

- In Art and Design & Technology pupils can produce signs, posters and stickers to place around the schools, encouraging use of other modes of transport rather than the car.

Geography

- Map routes to school
- Look at use of transport, eg. for shipping goods from abroad and linking this to fair trade goods.

History

- Transport through the ages and how the transportation networks have spread. Also, links to travel and tourism.

Citizenship/PSE

- Active citizenship and the whole school-based approach to sustainable transport use can support pupils' activities to explore their own personal responsibilities and the global environmental outcome of their decision and actions
- Pupils can be encouraged to put their ideas into practice through setting up action groups and clubs on transport issues.

A teacher's guide to rubbish!

The aim of this section is to deal with waste management and minimisation in a positive way. Litter is a persistent long-term problem and by tackling issues of waste minimisation it is hoped there will be less litter to deal with.

Why worry?

- Reason 1

The UK is running out of landfill space and councils and businesses now have to pay for landfill use and costs are rising each year. Local authorities have new recycling targets of 28 per cent of household waste if these are not met, heavy penalties will be issued.

- Reason 2

The smell of rotting rubbish and production of methane gas produced by rotting rubbish can be dangerous and explosive! Methane is a major greenhouse gas contributing to climate change but is not produced by composting as the air is well aerated.

- Reason 3

New technologies mean that modern landfill sites are better engineered, but old sites can leach pollutants into the soil and cause damage to watercourses and associated eco-systems.

- Reason 4

We are running out of room for new landfill sites; each year we fill about 300million square metres of land with rubbish – that's the same as covering the pitch at Old Trafford (MUFC) over 28,000 times!

- Reason 5

The transportation of rubbish is a problem, because it causes pollution and is expensive.

Why bother?

Efficiency: most waste is valuable and can be reused or recycled.

Reduced demand for raw materials: reuse and recycling reduces the amount of raw materials required for new products; for example, trees and energy used to produce new goods and materials.

Create local jobs: producing goods from recycled materials creates new industries to handle recyclable materials and in turn new products and jobs.

Environmental issues: recycling helps to reduce the environmental impact of issues such as global warming and deforestation.

Reduce landfill: we need to reduce the amount of rubbish going to landfill and the only way to do this is to reduce, reuse and recycle our rubbish.

Costs: landfill is expensive and as the amount of recycling increases, the actual process of recycling and producing recycled products will become cheaper.

The solution?

The three Rs of Reduce, Reuse and Recycle are key sustainable development messages. The three Rs' waste solution is:

- Too much in the first place? Reduce the amount of rubbish you create by choosing to buy products with less packaging.
- Can it be used again? Reuse unwanted items by giving them to friends or charity shops. Give old books and toys to your local hospital.
- Can it be made into something else? Recycle more of your rubbish. Approximately 60 per cent of the average domestic waste bin can be recycled.



Activity and project ideas

Litter surveys and litter lifecycle studies

A lot of schools have a litter problem. It is important therefore that the whole school is involved in looking at the problem through litter surveys and identifying where it ends up and how it affects the local environment. As well as the environmental implications, a litter survey can be used in curriculum areas, such as mapping skills in Geography, data collection for Maths, and presentation of results in ITC.

Visit to a recycling centre and refuse vehicle demonstration

Emerge Recycling Manchester – a not-for-profit community recycling business–offers short demonstrations and talks to schools.

Contact Emerge on 0161 223 8200
www.emergemanchester.co.uk

Visit a landfill site

A visit to a landfill site can really bring home to pupils the need for reducing waste when they see and smell the experience! Both Biffa and Viridor offer visits to landfill sites.

For details visit www.biffa.co.uk and www.viridor.co.uk

Start a recycling project

Approximately 70 per cent of school waste can be recycled, including paper, cans, glass, printer cartridges and mobile phones. Investigate which elements of the school waste can be recycled and start a project to recycle one of these. Paper is the most recycled material each year and is therefore a good way to start off a school recycling scheme. Also, remember to buy recycled products where possible. Think about solutions to reduce the amount of paper being used, such as double-sided photocopies, using paper on both sides, and using scrap trays – a good place for these is by the photocopier.

Take part in the Yellow Woods Challenge

The Council is working in partnership with Yell and The Woodland Trust to run a scheme for Manchester schools called the Yellow Woods Challenge. Running between July and October each year, the Yellow Woods Challenge is an exciting environmental campaign that has been running in Manchester for the past four years. The challenge is to collect last year's out-of-date Yellow Pages directories when the new ones are delivered across Manchester in August and September. There are significant cash prizes available for the schools that collect the most directories (per pupil) to be spent on improving the school's environment. All teachers will receive a Teacher's Toolkit with updated curriculum-linked ideas to teach children about the environment and native woodland, and each school receives a certificate from Kirk the campaign mascot, thanking the children for their hard work. There is also an option this year for an assembly to be given to the school on Yellow Pages recycling and how recycling can help our environment. If you would like further information on this campaign, please email the recycling team at recycling@manchester.gov.uk

www.yellow-woods.co.uk

Start a composting scheme

Schools are eligible for up to three free compost bins and five free compost caddies through the WRAP home composting scheme. The compost bins hold 330 litres. If you would like to order these, please send the full address of the school, a contact name and telephone number to recycling@manchester.gov.uk You can also apply to have an educational visit from a Greater Manchester Home Compost Adviser to teach the children about composting.

Activity and project ideas

Run a recycling/waste minimisation awareness campaign

An awareness-raising campaign can target pupils, teachers and non-teaching staff as well as parents and the wider community. Competitions, posters and leaflets can focus on the three Rs and an A-Z of recycling can teach communication and research skills as well as motivating pupils to run their own campaigns and clubs, perhaps through the Schools Waste Action Club (SWAC) or Waste Education Support Programme (WESP).

School purchasing policy

A school purchasing policy can help to reduce, reuse and recycle. Things to address in the policy include:

- buying recycled products
- buying from local suppliers to reduce transportation
- buying in bulk to reduce packaging
- choosing items packaged in recycled materials, such as cardboard rather than plastic.



Who to contact

Environmental Campaigns Team

Manchester City Council

Tel: 0161 953 2573

Email: campaigns.team@manchester.gov.uk

Recycling Team

Manchester City Council

Tel: 0161 954 9000

Email: recycling@manchester.gov.uk

Waste Watch

Lauren Prince

Education projects co-ordinator

Waste Watch

Tel: 020 7549 0321

Email: Lauren.prince@wastewatch.org.uk

Emerge

Tel: 0161 223 8200

www.emergemanchester.co.uk

Resources

Schools Waste Action Club (SWAC) and Waste Education Support Programme (WESP)

Schools Waste Action Club (SWAC) is an exciting Waste Watch initiative that provides advice on waste reduction, reuse and recycling in schools, and helps children take practical action on waste through its core activities. It has developed a variety of fun, curriculum-based activities focusing on the three Rs: Reduce, Reuse and Recycle.

Activities include the interactive bin and Cyler, the state-of-the-art rapping robot that dances, raps and chats to children aged five to 11 about reducing, reusing and recycling.

Visit www.wastewatch.org.uk to register.

In response to the demand for SWAC projects, Waste Watch has developed the Waste Education Support Programme (WESP) to help other organisations deliver high-quality waste education in both primary and secondary schools. WESP allows organisations to access Waste Watch resources and expertise developed through Cyler the robot and SWACs. It provides a combination of waste education resources, support and training for organisations wanting to deliver quality waste education in schools.

For further details contact

Lauren Prince

Education projects co-ordinator

Waste Watch

Tel: 020 7549 0321

Email: Lauren.prince@wastewatch.org.uk

www.recycle-more.co.uk

Recycle-more.co.uk is a one-stop recycling information centre. You will find help and advice on all aspects of recycling at home, at school and in the workplace.

www.recyclezone.org.uk

Recyclezone is a site for schools, children and teachers that tells you what's what in the world of waste!

Although the site is called recyclezone, recycling is only one of the things that can be done about waste. It talks about the three Rs – Reduce, Reuse, Recycle.

www.wasteonline.org.uk

All you need to know about waste, including facts, figures and useful information.

Curricular links

English

- Report the outcomes of surveys on litter in and around schools and in the community
- Debate issues, planning campaigns and activities, and reviewing success of the reduction of litter and encouraging recycling
- Play scripts and dramatic performance to look at the issues of sustainable development and consumerism, eg. can we have sustainable development if we continue to produce so much waste and litter?

Maths

- Litter survey in school grounds and the local area
- Put information collected into tables and graphs
- Cost use of paper in schools and calculating savings that could be made, eg. cost of worksheets compared to exercise books or using the whiteboard.

ICT

- The data created by surveys can be used in ICT to explore ways of presenting and handling data
- Create database from survey.

Science

- Link to work on growth and living things – life cycles and biodegradable materials
- Look at the technology behind producing recycled materials, such as plastics, glass and tin.

Art and Design & Technology

- In Art and Design & Technology pupils can produce signs, posters and stickers to place around the schools, encouraging the three Rs
- Design and making litter bins to store recyclable materials in the school
- Use waste materials to create artwork, such as using old textiles for a recycled fashion show.

Geography

- Map litter in school grounds
- Research other countries' waste disposal and recycling policies
- Look at how developing countries reuse and recycle resources
- Look at how raw materials are mined and the effects this can have on the local environment and communities.

History

- Compare types of litter at different times, eg. the growth of plastics
- Look at finite resources, such as oil and gas, and think about what we will do when these run out.

Citizenship/PSHE

- Active citizenship and the whole school-based approach of sustainable use of resources can support pupils' activities to explore their own personal responsibilities and the global environmental outcome of their decision and actions
- Pupils can be encouraged to put their ideas into practice through setting up action groups and clubs.

A teacher's guide to using and saving water – a fun, yet finite resource!

We all take water for granted in the UK. We drink and cook with it; we use it to wash our clothes, our dishes, and ourselves. We flush the toilet with it. We use it to wash our cars and to water our gardens. We play in it, swim in it, and have fun with it. We need water for so many things that we do every day, but because it is so easy to use, we often forget how precious it is.

Issues of water conservation and management in school are easy to address – many water efficiency measures cost little or nothing to implement, such as informing pupils to turn off taps, using water butts to collect rain water for the school gardens, installing self-closing taps or fixing leaking taps and pipes.

Schools spend around £70million per year on water; that's an average of £2,500 for each school, although a large high school could spend as much as £20,000. Careful water management combined with an effective education promotion programme could reduce water use and save a school of 600 pupils around £5,000 per year.

By focusing on water as a precious and vital resource, pupils can investigate and think about how they use water at school and at home. The balance between water supply and demand is becoming an increasingly worrying environmental issue; by 2020 demand for water may have increased by 40 per cent and over 1 billion people may not have access to safe drinking water. This is a global problem and forecasts depict an upward trend.

Issues of the effects of human activity on the water cycle, domestic and industrial use of water, problems of water supply, water conservation and water pollution in the National Curriculum make numerous direct references in Science Key Stages 2 and 3, Geography Key Stages 2 and 3, and ITC. Other cross-curricular themes of global poverty, access to drinking water, and rivers and watercourses crossing international boundaries give a global dimension to PSHE, Citizenship as well as Art and Design, English and History.

There are also links to other topics in this guide, such as Biodiversity and Transport, and the use and value of the rivers, watercourses and coasts of the north west as a sustainable resource. The rivers and canals of Manchester are an important feature of the city, both in terms of their heritage and in the future development of the city. They are important habitats for supporting wildlife and plants and enjoyable urban green spaces for people. There is a strong push in the north west to encourage schools and communities to use the three canals, four rivers and five miles of waterfront in Manchester, providing an ideal opportunity for river studies, pond dipping and boat trips on the canals!



Activity and project ideas

Water conservation project

Pupils can look at all elements of water conservation, starting with the school, home and local environment, and leading on to national use of water and global issues. By studying the water cycle and identifying where water is wasted, pupils can look at ways in which they can cut down on water use. They can use management and monitoring of water as a way of demonstrating a clear link between personal action and the bigger environmental issues.

Water reviews and measuring consumption

Encouraging cross-curricular working can address the issue of water as a resource in teaching in other areas. For example, using water meter readings for numerical exercises over time, showing graphical evidence in ITC and looking at cost savings of water conservation in Maths. Almost all schools are metered and before starting a water conservation project a water review can be undertaken to look at the amounts of water entering and being used in the school to give an indication of any wastage. For example, by taking an initial reading before weekends or at night and noting changes, any leaks and drips can be identified.

Information and activity sheets can be downloaded from: www.waterintheschool.co.uk or click on Teacher Info then Info & Activity Sheets or contact the **United Utilities Education Liaison Service on 01257 427875** to get a version on CD Rom.

United Utilities have also produced a pack entitled 'All About Water' that links to the National Curriculum and is suitable for children aged between eight and 14.

This pack provides information and activities about the water cycle, water conservation and water treatment.

It is available to download at:
www.unitedutilities.com/?OBH=4298

Water cycle

The water cycle is a cross-curricular theme for Geography and Science. By addressing the effect of human activity on the local water resources, pupils can make a personal link to the environment, and this gives pupils direct experience of enquiry and investigation-based skills. A mini-school grounds or home water cycle project can seek to identify distribution of water and how water is managed by the water utility companies and the school.

A good water cycle website is
www.bristolwater.co.uk/education

A water cycle fact sheet can be downloaded from
www.thameswater.co.uk

Click on Community and Environment then Water in Schools/Learn about Water/Resources/Water Cycle Fact Sheet (pdf)

Saving water

Once the water review has been completed, pupils can put in to place technical improvements such as self-closing taps, on/off controls on showers, and cistern flush controllers for toilets and urinals. It is also important to stress the need for behavioural improvements such as telling the caretaker about leaks or floods, and of course promoting ways to save water. Leaflets and posters, as well as displays and discussions in PSHE, can advertise ways that pupils and staff can save water at school and at home.

'Energy and Water Management – a Guide for Schools' can be downloaded from:

www.dfes.gov.uk/valueformoney

Click on Good Practice in the right-hand tool bar, then click on Energy and Water Management in the left-hand tool bar.

See the Waterwise website for simple tips on how to save water: www.waterwise.org.uk/
Click on Save Water/Quick Tips.

Activity and project ideas

School grounds, gardens and ponds

The school grounds are a good place to start investigating where water can be recycled. Water butts collect rainwater from down pipes, such as guttering, and this can be used to water small gardens and plants. Water used to wash fruit and vegetables in the school kitchen can be recycled in the same way. In one year, enough rain falls onto a typical primary school roof to fill 19,000 water butts!

Free water butts are available for registered Eco-Schools.

Contact **Gemma Lee** or **Dianne Sakalas**, **Environmental Education Officers, Manchester City Council** on **0161 953 2760/1**.

The school grounds can be used to site science and weather experiments on rainfall, as well as studies on habitats and wildlife if your school has a garden or pond. The water cycle can be linked to life cycles of butterflies and frogs, as well as planting seasons for seeds.

Global water issues

Campaigns are about raising awareness; pupils need to be aware that globally one billion people lack access to safe, affordable water, and over two billion people lack adequate sanitation. Water-related diseases are the largest cause of death in the world; the growing water crisis provides an important global dimension and can be linked to pupils getting involved with aid agencies, such as WaterAid, and raising funds for marginalised communities.

www.wateraid.org.uk has case studies from around the world that focus on the real impact of water on people's lives and their health.

Water pollution

The pollution of waterways, such as beaches and rivers, can get pupils questioning who owns water and whose responsibility it is to keep it clean. Many human activities and their by-products have the potential to pollute water. Large and small industrial enterprises, the water industry, the urban infrastructure, agriculture, horticulture and transport, as well as deliberate or accidental pollution incidents, all affect water quality. This has a knock-on effect throughout the water cycle. An industry upstream that pollutes a river would cause a catastrophe to people and living things downstream;

similarly, oil spillages at sea can dramatically affect sea life. By holding a mock conference or public enquiry about the North Sea; for example, issues of oil, shipping and recreation and looking at the differences between man-made pollution and natural pollution, pupils can develop values and opinions concerning the environment.

Field trips, recreation and tourism

Fieldwork can start in the school grounds with small investigations and spread out to make use of local water resources however small or large. Manchester's Park Warden service organises activities such as pond dipping and has a wealth of green urban spaces, for example the Irk Valley, Irwell River Valley, Mersey Valley and Chorlton Water Park for river, water and biodiversity studies or just fun days out! Further away, water resources, such as Keilder Water and Forest Park in Northumberland, the Lake District and the north west's beaches, can be utilised to study recreation and tourism.

See **www.kielder.org** and **www.lake-district.gov.uk** for more information.

Manchester City Council Parks

For more information about Manchester parks see:

www.manchester.gov.uk/leisure/parks

Manchester City Council Park Warden Service

For more information and details of your local park warden see:

www.manchester.gov.uk/leisure/parks/wardens



Who to contact

Dave Barlow
Engagement Manager
Environmental Campaigns Team
Manchester City Council

Tel: 0161 953 2755
Email: d.barlow@manchester.gov.uk

People to invite to your school:

Manchester City Council Environmental
Campaigns Team

Tel: 0161 953 2573

Manchester City Council Park Warden Service

For more information and details of your local park warden see:

www.manchester.gov.uk/leisure/parks/wardens

Mersey Basin Trust

Mersey Basin Trust is an independent trust offering help, advice and resources to teachers on river studies and water issues in the curriculum.

Contact **Val Cooper** on **0161 273 4207**
Email: **merseybasintrust@hotmail.com**



Places to visit

Manchester City Council's parks

Chorlton Water Park

Telephone: 0161 881 5639

www.manchester.gov.uk/leisure/parks/mersey/index.htm

Debdale Outdoor Centre

Tel: 0161 223 5182

www.manchester.gov.uk/leisure/debdale

Heaton Park

Tel: 0161 773 1085

www.heatonpark.org.uk/HeatonPark

Wythenshawe Park

Tel: 0161 998 2117

www.manchester.gov.uk/leisure/parks/south/wshawe

Mersey Valley, Medlock Valley, Irk Valley, River Irwell, Ashton and Rochdale Canals

Mersey Valley

The Mersey Valley Countryside Warden Service offers free educational visits to schools and advice on water-related activities.

Contact **Andy Martin** on **0161 905 1100**

www.merseyvalley.org.uk

Medlock Valley

www.medlockvalley.info/

Irk Valley

www.irkvalley.info/main.html

Museum of Science and Industry Manchester

Permanent exhibitions on water: go underground to find out why clean water and effective sewerage were vital to public health and Manchester's development.

www.msim.org.uk

Leigh Environmental Education Centre

KS2 one-day programmes on the water cycle and water conservation. Book well in advance.

Contact Elisa Wood on 01942 601 114.

www.unitedutilities.com/education

Resources

www.waterintheschool.co.uk

This website provides everything required to set up and run a water conservation project in school. The site can support cross-curricular work that enriches subject areas such as science, maths, literacy and numeracy, and citizenship. There is easy-to-use downloadable software (which analyses the school's water meter readings), guidance and background information for teachers, plus information and activity sheets for pupils.

www.thewaterfamily.co.uk

A fun website designed to get the whole family involved in water conservation around the home. Design your own family, and challenge them to make decisions about water use, to win virtual prizes for their house.

'Water in the School' and 'The Water Family' are also available on CD Rom. Contact the United Utilities Education Liaison Service on 01257 427875.

United Utilities have also produced an 'All About Water' pack that links to the National Curriculum and is suitable for children aged between 8 and 14.

This pack provides information and activities about the water cycle, water conservation and water treatment.

It is also available to download at:

www.unitedutilities.com/?OBH=4298

www.wateraid.org.uk

Wateraid have a variety of resources that can be used throughout the curriculum. These fit in with QCA units and strategies for numeracy and literacy. Resources are especially focused on development issues and include case studies from around the world.

It links well with Global Eye, which produces an excellent newsletter on a variety of environmental and development issues.

www.globaleye.org.uk

www.wow4water.net/

Wild over Water website has lots of games to play, information for school projects and waterway events.

For teachers, the site contains numerous teaching resources, activity and information packs, and safety resources.

www.waterwise.org.uk/

Waterwise aims to reduce water consumption and wastage in the UK. Website has lots of useful information on saving water and links to other useful sites.

www.blueprintforwater.org.uk

Click Downloads/The Blueprint for a copy of the document, full of facts, figures and photos.

Suggests ten steps towards sustainable water by 2015. More suitable for Key Stages 3 and 4.



Curricular links

English

- Report the outcomes of school water surveys and top ten tips on saving water around schools and in the community
- Debate issues, planning campaigns and activities, and reviewing success of saving water
- Investigate issues associated with siting new reservoirs or Hydro Electric Power stations (HEP) and using play scripts, dramatic performance and stories to argue positive and negative aspects and present evidence
- Draft briefs and debating issues for representation of different groups at a planning enquiry
- Role play as a way of presenting opinions.

Maths

- Water surveys in school, measuring water meterage and quantifying water wasted from dripping taps and leaks
- Put information collected into tables and graphs
- Calculate savings that can be made by being water-efficient.

ICT

- The data created by surveys can be used in ICT to explore ways of logging, calculating, presenting and handling data
- Create databases from survey results.

Science

- Investigate the water cycle and link to work on growth, living things and life cycles of plants and animals
- Water treatment and sewerage issues
- Industrial uses of water.

Art and Design & Technology

- In Art and Design & Technology pupils can produce signs, posters and stickers to place around the schools, encouraging people to save water
- Water as a source of artistic inspiration in poetry and art.

Geography

- Study the water cycle, human effects on water cycle, pollution and seasonal variations, such as droughts and flooding
- Weather experiments and investigating rainfall harvesting in schools
- Research other countries' issues with water, for example the lack of water, floods, and drought.

History

- Find out how water was used in industry and about navigable rivers and canals
- Research how people kept themselves clean and about sanitation.

Citizenship/PSHE

- Active citizenship and the whole school-based approach of sustainable use of resources can support pupils' activities to explore their own personal responsibilities and the global environmental outcome of their decisions and actions
- Pupils can be encouraged to put their ideas into practice through setting up water management action groups
- Using water in play and through field trips, valuing rivers, canals and water as valuable resources
- Global and development issues of who owns water and health problems.

Setting up and running an Environmental Action Project in five easy steps

Running and maintaining an Environmental Action Project will depend upon enthusiastic and active participation from the whole school community.

Many environmental projects are not sustainable over the long term as enthusiasm fades and people who lead the projects move on to high school, college or another job. It is essential therefore to get a strong team together to organise the project and to organise management and maintenance for the future.

The Environmental Project Team should be made up of volunteers from students, teaching and non-teaching staff, parents and, if possible, outside bodies, community groups and local residents.

You may also wish to join national and international organisations to share experiences and provide motivation.

The British Council runs a variety of projects where schools can link and develop a learning partnership with a school in Africa, Asia, Latin America or the Caribbean.

Environmental projects are ideal!

The Development Education Project (DEP) runs the Sustainable Cities project, looking at the concept of sustainable cities and communities with partners in Italy, Brazil, Canada and India. Teaching resources can be viewed on the **website www.dep.org.uk/cities**.



Stage 1: On your marks!

- **Get your team together**

Once you have decided on the idea of running a project, you need to get interested people together to form a Project Team. This works well if the people running the project decide what project is best and how they will run it. Try to involve the following: head teacher, two teachers, including the Environmental Education teacher if available, a non-teaching member of staff, pupils, parents, PTA members and local community group members.

- **ID your aims**

Your aims are your guiding principles and as such you should be clear about the reasons for the project and what you hope to achieve.

Stage 2: Get set

- **Assess your assets**

Spend time looking at the functional demands and constraints of the school. There may be technical or financial reasons why a project will not be successful at your school, or you may already have more resources and support than you thought.

- **Produce a design brief**

One of the first things for the Project Team to do is gather ideas from everyone linked with the school. Questionnaires are a good way of finding out information – in particular, ask pupils what they would like to do in the school rather than what they want, or you may end up with a shopping list. Also, design a logo and/or strapline to put on badges, letters and display boards. From this point you can design an Action Plan with realistic timescales.

- **Get permission**

It may be necessary to look at insurance, liability and responsibility for projects. Check with the Education Department to find out what is covered in the schools' insurance policy – you may have to budget separately for this. You will need to get written permission from parents and/or carers for out-of-school activities.

- **Fund-raising**

Although effective projects can be achieved without much finance, there are generally sources of funding and grants available. Good places to look for sources of funding are:

www.grantfinder.co.uk and
www.towards-sustainability.co.uk

CASH and CHANGE grants are available for new and small community groups from Manchester City Council's Voluntary Sector Group.

Email: voluntary.sector.grants@manchester.gov.uk

Alternatively, you can raise your own funds through competitions, sponsored events, donations and fund-raising events – most schools have lots of experience and ideas on fund-raising events and they can be linked to the project, such as a sponsored litter-pick.



Stage 3: Go!

- **Programmes of work**

Projects need to be planned into schemes of work and seasonal limitations, for example tree planting is best done in November to January. School travel surveys are best done during peak and trough times of the school runs and planning around school holidays is essential. If finance is required, cash flows need to be linked to activities and it is best to spread them out over the school terms. Projects can be season-based, such as Christmas recycling projects when people use and produce a lot of waste, and fund-raising events can be held to make the most of unwanted Christmas presents!

STOP PRESS!

Manchester City Council runs annual Spring Clean events in March/April where schools are invited to get involved in cleaning local communities and grot spots.

Contact the Environmental Campaigns team at:

campaigns.team@manchester.gov.uk

See **www.manchester.gov.uk/environment/campaigns/index.htm** for more information.

- **Informing people**

Keeping people informed of what is happening is vital to maintain enthusiasm and support. Have a special school notice board with events and milestones; ask pupils to present their findings at PTA meetings, and put up posters at local libraries, youth and community groups and places of worship. Why not invite the local press or celebrity along to launch your initiative?

- **Code of Practice**

A Code of Practice will help to ensure that the project is sustainable and that everyone knows what they should be doing, and most importantly, why.

- **Say thanks**

Thank everyone who has provided help and support – write a letter, organise an open day and keep them in touch with the future.

Stage 4: Keep on going!

- **Maintenance and evaluation**

Ongoing activity needs to be planned into the school year. The most effective way to do this is to formulate a maintenance plan and give responsibilities to individual people. Evaluation should be ongoing. Look back at the aims and see if they have been achieved; has the project met expectations or exceeded them? Is there anything that can be improved and how can changes be monitored and evaluated?

- **Motivation and enthusiasm**

Motivation is fed by enthusiasm, continuation and celebration. If you are finding it difficult to keep the project on track and the Action Team motivated, consider asking for advice and guidance from experienced professionals and organisations.



Stage 5: and on and on...

- **Plan for the long term**

Sustainable projects need sustainable thought and you should ask how the project will be maintained. If you are developing a wildlife garden, how will the garden be watered and maintained during school holidays? Is maintenance covered by contractors or will volunteers need to go into school to sow seeds during the summer holidays?

- **More community involvement**

You may need more assistance as the project develops or if you don't have the time to develop it. A good way of achieving this is to ask for more community involvement along the way – the more people involved, the more ownership there is to ensure success continuation.

- **Be realistic**

It may be better to start small and plan each step especially if you are new to this. If the first phase is successful, you can build on that success for the next year.

A typical Environmental Action Plan:

Term one

- Environmental Action Team formed
- Lead teacher appointed
- Project planned with schemes of work and Eco-Schools/Healthy Schools projects. Audit of school's resource use/issues to be carried out.

Term two

- Curriculum activities took place
- Campaign(s) launched
- Purchasing and/or contractual arrangements reviewed
- Improved facilities introduced.

Term three

- Success reviewed with a second audit
- Next steps planned
- Project aims built into the School Improvement Plan
- Results publicised
- Celebration!



	Biodiversity	Energy	Travel and transport	Water	Waste management	Global perspectives	Healthy living
English	KS2/En1/3c,d,e Group discussion and interaction	KS2/En1/3c,d,e Group discussion and interaction	KS2/En1/3c,d,e Group discussion and interaction	KS2/En1/3c,d,e Group discussion and interaction	KS2/En1/3c,d,e Group discussion and interaction	KS2/En1/3c,d,e Group discussion and interaction	KS2/En1/3c,d,e Group discussion and interaction
Maths	KS2/Ma4/1a Using, applying and handling data, problem-solving	KS2/Ma4/1a Using, applying and handling data, problem-solving	KS2/Ma4/1a Using, applying and handling data, problem-solving	KS2/Ma4/1a Using, applying and handling data, problem-solving	KS2/Ma4/1a Using, applying and handling data, problem-solving	KS2/Ma4/1a Using, applying and handling data, problem-solving	KS2/Ma4/1a Using, applying and handling data, problem-solving
Science	Unit 4B Habitats Unit 5B Life cycles Unit 6A Interdependence and adaptation	Unit 6D Reversible and irreversible changes	Unit 4B Habitats Unit 6A Interdependence and adaptation	Unit 4B Habitats Unit 5B Life cycles Unit 6A Interdependence and adaptation	Unit 6D Reversible and irreversible changes	Unit 4B Habitats Unit 6D Reversible and irreversible changes	Unit 3A Teeth and eating Unit 5A Keeping healthy
Art and Design	Unit 3C Can we change places?	Unit 3A Packaging	Unit 3C Can we change places?	Unit 5B Containers	Unit 3A Packaging Unit 5B Containers Unit 5C Talking textiles Unit 3C Can we change places?	Unit 3A Portraying relationships Unit 3B Investigating pattern Unit 6B What a performance	Unit 3A Portraying relationships
ICT	Unit 5A Graphic modelling Unit 6C Control and monitoring	Unit 5A Graphic modelling Unit 6C Control and monitoring	Unit 5A Graphic modelling Unit 6C Control and monitoring	Unit 5A Graphic modelling Unit 6C Control and monitoring	Unit 5A Graphic modelling Unit 6C Control and monitoring	Unit 3E Email Unit 5F Monitoring environmental conditions and changes	Unit 5F Monitoring environmental conditions and changes

	Biodiversity	Energy	Travel and transport	Water	Waste management	Global perspectives	Healthy living
Geography	Unit 8 Improving the environment Unit 21 How can we improve the area we see from our window?	Unit 8 Improving the environment	Unit 20 Local traffic – an environmental issue Unit 21 How can we improve the area we see from our window?	Unit 11 Water Unit 21 How can we improve the area we see from our window? Unit 23 Investigating coasts	Unit 8 Improving the environment Unit 21 How can we improve the area we see from our window?	Unit 17 Global Eye Unit 24 Passport to the world Unit 22 A contrasting locality overseas – Tocuaro	Unit 8 Improving the environment Unit 11 Water Unit 20 Local traffic – an environmental issue
History	Unit 12 How did life change in our locality in Victorian times? Unit 13 How has life in Britain changed since 1948?	Unit 12 How did life change in our locality in Victorian times? Unit 13 How has life in Britain changed since 1948?	Unit 12 How did life change in our locality in Victorian times? Unit 13 How has life in Britain changed since 1948?	Unit 12 How did life change in our locality in Victorian times? Unit 13 How has life in Britain changed since 1948?	Unit 12 How did life change in our locality in Victorian times? Unit 13 How has life in Britain changed since 1948?	Unit 10 What can we find out about ancient Egypt from what has survived? Unit 16 How can we find out about the Indus Valley civilisation?	Unit 8 What were the differences between the lives of rich and poor people in Tudor times?
Citizenship/ PSE	Unit 10 Local democracy for young citizens	Unit 10 Local democracy for young citizens	Unit 10 Local democracy for young citizens	Unit 10 Local democracy for young citizens	Unit 10 Local democracy for young citizens	Unit 5 Living in a diverse world	Unit 6 Developing our school grounds

	Biodiversity	Energy	Travel and transport	Water	Waste management
English	KS3 1/EN1 Speaking and listening	KS3 1/EN1 Speaking and listening	KS3 1/EN1 Speaking and listening	KS3 1/EN1 Speaking and listening	KS3 1/EN1 Speaking and listening
Maths	KS3 2/Ma2/ Numbers and algebra	KS3 2/Ma2/ Numbers and algebra	KS3 2/Ma2/ Numbers and algebra	KS3 2/Ma2/ Numbers and algebra	KS3 2/Ma2/ Numbers and algebra
Science	Unit 7D Variation and classification Unit 9C Plants & photosynthesis Unit 9D Plants for food Unit 9G Environmental chemistry	Unit 7I Energy resources Unit 8I Heating and cooling Unit 9I Energy and electricity Unit 9G Environmental chemistry	Unit 7I Energy resources Unit 8I Heating and cooling Unit 9I Energy and electricity Unit 9G Environmental chemistry	Unit 7I Energy resources Unit 8I Heating and cooling Unit 9I Energy and electricity Unit 9C Plants and photosynthesis Unit 9D Plants for food Unit 9G Environmental chemistry Unit 8G Rocks and weathering	Unit 7I Energy resources Unit 8I Heating and cooling Unit 9G Environmental chemistry
Art and Design	Unit 8C Shared view Unit 9C Personal places, public places	Unit 9Aii Selecting materials – resistant materials Unit 9D Using control for electronic monitoring	Unit 9Aii Selecting materials – resistant materials	Unit 9Aii Selecting materials – resistant materials Unit 9C Personal places, public places	Unit 9Aii Selecting materials – resistant materials Unit 9Aiii Selecting materials – resistant textiles
ICT	Unit 7 Measuring physical data	Unit 7 Measuring physical data Unit 14 Global communication: negotiating and transferring data	Unit 7 Measuring physical data Unit 14 Global communication: negotiating and transferring data	Unit 7 Measuring physical data Unit 14 Global communication: negotiating and transferring data	Unit 7 Measuring physical data

	Biodiversity	Energy	Travel and transport	Water	Waste management
Geography	Unit 8 Coastal environments Unit 11 Investigating Brazil Unit 12 Images of a country Unit 13 Limestone landscapes of England Unit 14 Can the earth cope? Ecosystems, population and resources Unit 19 Tourism – good or bad? Unit 23 Local actions, global effects	Unit 11 Investigating Brazil Unit 14 Can the earth cope? Ecosystems, population and resources Unit 23 Local actions, global effects	Unit 8 Coastal environments Unit 14 Can the earth cope? Ecosystems, population and resources Unit 19 Tourism – Good or bad? Unit 23 Local actions, global effects	Unit 8 Coastal environments Unit 11 Investigating Brazil Unit 13 Limestone landscapes of England Unit 14 Can the earth cope? Ecosystems, population and resources Unit 23 Local actions, global effects	Unit 9 Shopping past, present and future Unit 14 Can the earth cope? Ecosystems, population and resources Unit 18 The global fashion industry Unit 23 Local actions, global effects
History	Unit 11 Industrial changes – action and reaction Unit 14 The British Empire	Unit 11 Industrial changes – action and reaction Unit 14 The British Empire	Unit 11 Industrial changes – action and reaction Unit 14 The British Empire	Unit 11 Industrial changes – action and reaction Unit 14 The British Empire	Unit 11 Industrial changes – action and reaction
Citizenship/ PSE	Unit 10 debating a global issue Unit 18 Developing your school grounds	Unit 10 Debating a global issue Unit 18 Developing your school grounds	Unit 10 debating a global issue Unit 17 School linking Unit 18 Developing your school grounds	Unit 10 Debating a global issue Unit 17 School linking Unit 18 Developing your school grounds	Unit 10 Debating a global issue Unit 18 Developing your school grounds

	Biodiversity	Energy	Travel and transport	Water	Waste management	Global perspectives	Healthy living
Key Stage 2	<p>Butterfly Pavilion School Kit with certificate for 33 caterpillars</p> <p>Butterfly Curriculum KS 2</p> <p>Activities for using the Butterfly School Kits</p>	<p>Teaching about energy</p> <p>KS2 activities for science, Geography</p> <p>Design and Technology</p> <p>Energy efficient light bulb</p>	<p>Earth Alert – transport</p> <p>KS2 explores environmental impacts of transport, colour photos, maps and topic web</p>	<p>Art of recycling</p> <p>Ideas for Art and Design using waste materials</p> <p>Mouse Mat made from rubber tyre</p>	<p>Water numerate: daily maths for the global citizen</p> <p>Water aid resource</p> <p>Pond Explorer Kit</p> <p>To explore and study pond life</p>	<p>101 ways to save the world</p> <p>Guide to the small actions children can take</p> <p>School is us: a practical guide to whole-school change</p> <p>Photocopiable activities to help staff work together</p>	<p>Primary Internet Explorer</p> <p>Introduction to ESD with activities linked to energy, transport and waste</p> <p>Manchester: creating our future</p> <p>KS2 Photo pack: living in the city, use of land and buildings, waste, jobs, transport</p>
Key Stage 3	<p>Butterfly Pavilion School Kit with certificate for 33 caterpillars</p> <p>Butterfly Curriculum KS 2</p> <p>Activities for using the Butterfly School Kits</p> <p>Urban Challenge: the challenge of the urban school site</p> <p>A practical guide</p>	<p>Live Well, Live Wisely</p> <p>Technology for sustainable development</p> <p>KS3 teacher guide on themes of solar power, transport, food etc</p> <p>Wall to wall design</p> <p>KS2 Design and technology guide to building new homes</p>	<p>Good alternative</p> <p>Travel Guide</p> <p>Environmental projects, global travel and sustainability</p>	<p>Don't throw it all away</p> <p>Recycling Guide</p> <p>Art of recycling</p> <p>Ideas for Art and Design using waste materials</p>	<p>Whose right to water?</p> <p>Examining global water issues</p> <p>Pond Explorer Kit</p> <p>To explore and study pond life</p>	<p>School is us: a practical guide to whole-school change</p> <p>Photocopiable activities to help staff work together</p>	<p>Internet to go!</p> <p>Effective Environmental Education using the internet</p> <p>Manchester: creating our future</p> <p>KS2 Photo pack: living in the city, use of land and buildings, waste, jobs, transport</p>

The following resources are recommendations only. DEP (Development Education Project) supplied the books. Contact Jane Angel on 0161 445 2495 for details of extensive resources available, including a lending library. Insect Lore supplied the Butterfly Pavilion and Pond Explorer Kits. Contact European Sales on 01908 563 338.

Special events

Month	National/Local	International
January	Big Garden Bird Watch	
February	National Nest Box Week Big Garden Bird Watch	World Wetlands Day 7th Conference of the Parties of the Convention on Biological Diversity
March	Biodiversity Month National Science Week Real Nappy Week Fair Trade Fortnight Earth Day World Water Day	World Sustainable Energy Day World Day for Water
April	Welly Week	World Health Day
May	National Moth Night Walk to School Week Walk in the Woods Be Nice to Nettles Week	International Compost Awareness Week
June	Wildlife Week National School Grounds Week National Insect Week Green Transport Week National Bike Week Yellow Woods Challenge Big Arts Week	World Environment Day
July	Enjoy Your Local Nature Reserve Week	
August		European Bat Week
September	In Town Without My Car – Manchester Red Squirrel Week Clean Up The World Week	
October	Seed Gathering Sunday Energy Efficiency Week Walk to School Week Make a Difference Day	International Walk to School Week
November	National Tree Week Road Safety Week National Children’s Activity Week Shout about Solutions to Climate Change Week	
December	Tree Dressing Day	