

CEE*mail*



Council for Environmental Education

Environmental Education and Sustainable Development

RESOURCES AND INFORMATION FOR TEACHERS

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www.cee.org.uk

Awesome world of science



- Ancient and modern: Bristol Cathedral provides the backdrop for the Orange Imaginarium at Explore-At-Bristol (www.explore-at-bristol.org.uk)

Cloud 9

"Wow, that's amazing! Awe-inspiring, mind-boggling, beyond the wildest imagination." Call it a biosphere, creation, or just plain "home", this world inspires us to explore, learn and achieve great things.

Stimulating experiences beyond the classroom are essential if we want to inspire young people to learn. It is time education got out more!

Science for the 21st century is a welcome new teaching approach to inspire pupils' interest in the subject. And in a world shaped as much by values, beliefs and politics as by scientific facts, it will help them form their own opinions about important world issues. So, with biology fieldwork close to extinction, this is welcome news.

This issue of *CEEmail* helps you to make links between science and the world beyond your classroom.

If you want to learn more about the world of environmental education and sustainable development, come to the CEE/DEA conference on 11 April. For details, see back page.

CEE's work is funded by:

- Department for Education and Skills
- Department for International Development
- Department for Environment, Food and Rural Affairs

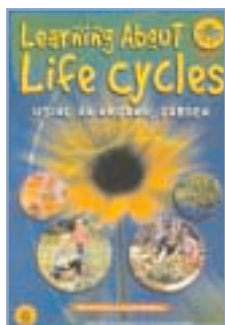
Spring 2003

Resources

**F.R.O.G.S.:
Learning about
life cycles using
an organic
garden**

Key Stage 2 science,
geography,
citizenship and
PSHE

Food Raised on Organic Gardens in Schools (FROGS) uses a cartoon frog with human characteristics to look at the life cycles of plants, common garden pests and their natural predators. With background information and



activities, it aims to help raise awareness in children of creatures in their own environments that need to be protected and to help them understand the interdependency of all species on the planet.

■ Randall, Alan and Mitchell, Ian. Learning through Landscapes and Southgate Publishers, 2002. 64 pages. Green Shoots series: science topics that encourage more sustainable development. £9.95 + p&p.

From: Southgate Publishers Ltd, The Square, Sandford, Crediton, Devon EX17 4LW.

Tel 01363 776888 Fax 01363 776889

Email info@southgatepublishers.co.uk

Website www.southgatepublishers.co.uk

Consuming passions – a Key Stage 4 teacher resource exploring the consumer strand of citizenship**Key Stage 4 Citizenship**

Consumer-skills teaching pack to encourage pupils to think beyond everyday purchases to explore how consumer issues touch on social, environmental and political concerns at local, national and global levels.

■ Hayward, Jeremy, Coppack, Martin, and Wells, Juliet. Institute for Citizenship, 2002. ISBN 1 902482 15 8.

58 pages. Free.

From: Institute for Citizenship, 62 Marylebone High Street, London W1U 5HZ

Online

ScienceWorlds

www.scienceworlds.co.uk

Key Stages 2 & 3

A guide to about 160 science centres and science-related venues across the UK. Contains listings for environmental education centres with links for their websites, and interactive science games from across the world. Topics include rainforests, global warming, air pollution and energy sources. Developed in partnership with BA, Wellcome and the Millennium Commission.

Try Science

www.tryscience.org

A gateway to explore contemporary science and technology through online and offline interactivities with science and technology centres worldwide. UK listings include

Explore-At-Bristol, Science Projects, The Making Place, Nature's World and Science Year, with links provided for their

various websites. Developed through a partnership between IBM, the New York Hall of Science, the Association of Science-Technology Centres, and science centres worldwide.

Planet Science for Science Teachers

www.planet-science.com/sciteach

Key Stages 1–4

As part of an educational

campaign aimed at encouraging young people to have positive attitudes to science, the teachers' section (sci-teach) is a

searchable database containing free resources, activities, information and ideas to help make science teaching more enjoyable. The website is

managed by the National Endowment for Science, Technology and the Arts in partnership with the Association for Science Education and the British Association for the Advancement of Science. Includes an online version of 'Little Book of Experiments'.



Picture: National Grid

Naturegrid

www.naturegrid.org.uk

The Naturegrid website contains resources that are linked to parts of the Primary QCA Science Schemes of work. The main support is for 'life processes and living things' (Sc2). Developed by the Canterbury Environmental Education Centre.

Biotechnology and Biological Sciences Research Council

www.bbsrc.ac.uk/quickguides/teacher.html

Contains information on the programmes the council runs to encourage links between working scientists and schools; online resources to support science education at primary, secondary and post-16 levels; and information on the free Schools Science club.

CD-ROMs

Inclusive Science and Special Educational Needs

ASE and NASEN, 2002. Price: £5.

Key Stage 3 Science

Includes investigations, interactive resources and practical guidance. Aimed at people teaching science in mainstream and special schools. Topics include coastline protection, citizenship and farming, and rainforest and symbols. Product of a recent project organised by the Association of Science Education and the National Association for Special Educational Needs. Contents are also available online at

Plastics and the environment

Fyffes and Symphony Environmental Ltd, 2000. Free.

Key Stage 2 Science, Design and Technology

Using plastics in banana production and distribution as a case study, it aims to raise awareness of the role of plastics and the environmental challenges that result.

From: Robert Bobroff, Symphony Environmental Ltd, Elstree House, Elstree Way, Borehamwood, Herts WD6 1LE. Tel 0208 207 5900 Fax 0208 207 5960 Email robert@symphonyplastics.co.uk



www.issen.org.uk.

From: ASE Book Sales, College Lane, Hatfield, Herts AL10 9AA. Tel 01707 283001 Fax 0800 371856

Antarctic Waves: Making music from science

British Antarctic Survey and Braunarts, 2002. £39.20 + VAT, plus £2.95 p&p.

GCSE and A-level Science, Geography, Arts and Music Antarctic science, imagery and sounds to provide inspiration and new ideas for musical composition for 11–19-year-olds. Issues include climate change. Winner of BAFTA award for Offline Learning and *Sunday Times* Doors Award 2002 for being "jaw-droppingly innovative".

From: MMT Ltd, Glaston Hall, Spring Lane, Glaston, Oakham, Rutland, LE15 9BZ. Tel 08700 552 552 Fax 01572 820213 Website www.antarcticwaves.com

Resources

Tel 0207 935 4777 Fax 0207 486 9212
Email info@citizen.org.uk
Website www.citizen.org.uk

Photo opportunities: science

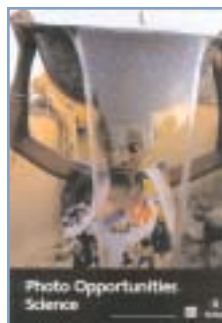
Early years, Key Stages 1 & 2

Intended to support teachers in bringing a global dimension to the delivery of primary science. Consists of photocards featuring children from around the world in activities specially selected for science; a teacher's booklet with ideas for science lessons with curriculum links; and a full-colour A1 poster with a world map on the reverse.

■ Wadsworth, Pamela and Brownlie,

Ali. Oxfam and Association of Science Education, 2002.
Photo Opportunities series.
ISBN 1 870727 48 7
£12.50.

From: Oxfam Publishing, 274 Banbury Road, Oxford OX2 7DZ.
Tel 01865 313744
Fax 01865 313713
Email publish@oxfam.org.uk
Website www.oxfam.org.uk



Science through the environment: a compilation of ideas for using the environment to inspire science education at Key Stages 1 and 2

Contains first-hand learning experiences with suggestions to enhance science education in the classroom and outdoor environment.

■ Edwards, Rosie and Wallace, Liz (Editors). National Association of Field Studies Officers, 2002. 48 pages. "...through the environment" series. £7.00 + £1.00 p&p.

From: NAFSO, Stibbington Centre for Environmental Education, Great North Road, Stibbington, Peterborough PE8 6LP. Tel 01780 782386 Fax 01780 783835
Website www.nafso.org.uk

Competitions and Awards

CREST Awards

Organiser: The British Association for the Advancement of Science.

Task: A project-based award scheme for mentoring secondary-age pupils, forging links between schools and industry, preparing pupils for the world of work. Projects can be in any area of science, engineering and technology and can be chosen by the pupil subject to the approval from the teacher and CREST advisor. Project suggestions can be obtained from CREST Local Organisers.

Categories: 11–14 years; 14–16 years; 16–19 years.

Awards: Bronze (KS3), Silver (GCSE), Gold (A-level) accreditations.

Closing date: Ongoing.

Application details: Jo Luciw, CREST Officer, the BA, 23 Savile Row, London W1 2EZ
Tel 0207 973 3309
Fax 0207 973 3051
Email Joanna.Luciw@the-ba.net
Website www.the-ba.net

Science Writing Competition

Organiser: Daily Telegraph BASF.

Task: A national event on science journalism. Write an article of 700 words on any scientific or science-related subject in an entertaining, informative and original way.

Categories: Students aged 16–19 years and 20–28 years. Articles can be submitted either as a school or teacher entry.

Prizes: (i) School's prize: £500 plus one year subscriptions to both *Nature* and *New Scientist* magazines; (ii) Teacher's prize:

£200 book token for the teacher submitting the highest number of entries for their school. Other prizes include an all expenses-paid week-long trip to the 2003 Meeting of the American Association for the Advancement of Science in Denver, USA; and an invitation to the British Association's Festival of Science 2003 at Salford University.

Closing date: 25 April 2003.

Application details: The Daily Telegraph BASF, Science Writer Awards 2003, 4 Hanover Yard, Noel Road, London N1 8YA.
Tel 0207 704 5315
Email enquiries@science-writer.co.uk
Website www.science-writer.co.uk

School Partnership Project

Organiser: Franco-British Council.

Task: Carry out a project with a partner school in France for the academic year 2003/2004 relating to any environmental theme. Emphasis should be on practical work at local level and the project plan must allow for collaboration between the partner schools in order to provide greater understanding of the differences in cultures, as well as the opportunity to share thoughts and ideas on the environment.

Categories: Any UK primary or secondary school.

Awards: Up to three grants with prize money totalling £5,000; maximum single award will not exceed £3,000.

Closing date: 22 May 2003.

Application details: Franco-British Council, British Section, Victoria Chambers, 16–18 Strutton Ground, London SW1P 2HP.

Tel 0207 976 8380
Fax 0207 976 8131
Email info@francobritishcouncil.org.uk
Website www.francobritishcouncil.org.uk

Trees for Schools Fund 2003

Organiser: The Tree Council.

Task: Schools to undertake well-planned tree-planting projects during National Tree Week, 26 November to 7 December 2003. Trees must be planted in school grounds or playing fields.

Categories: Schools.

Awards: Grants of £100–£700.

Closing date: 30 June 2003.

Application details: The Tree Council, 51 Catherine Place, London SW1E 6DY.
Tel 0207 828 9928
Fax 0207 828 9060
Email info@treecouncil.org.uk
Website www.treecouncil.org.uk

STEM 2003: Newcomer Award for the Science Museum

Organiser: Science Museum STEM 2003 and Toshiba.

Task: The STEM Project is an Internet competition to encourage museum visitors to create a website based on a gallery or exhibit at either the Science Museum (London), the National Museum of Photography, Film & Television (Bradford) or the National

Railway Museum (York), or a visit to one of their websites.

Categories: Under 11 years, 11–18 years and adults. Entries must be newcomers to STEM.

Prizes: 1st, 2nd and 3rd place prizes of Toshiba goods for the school and individual.

Closing date: 16 July 2003.

Application details: Martin Bazley, Science Museum London, Exhibition Road, South Kensington, London SW7 2DD.
Tel 0207 942 4771
Fax 0207 942 4447
Email stem@nmsi.ac.uk
Website www.sciencemuseum.org.uk/education/stem/stem/stemintro.asp

Partnership Grants

Organiser: The Royal Society.

Task: A scheme to support teachers, scientists and engineers who want to work together to inspire young minds. Develop a creative project for pupils aged between 5 and 16 that demonstrates the relevance of science and engineering in today's society.

Categories: UK teachers of primary and secondary schools.

Awards: Grants between £250 and £2,500 available.

Closing date: 24 October 2003.

Application details: Kirsty Brown, Education Officer, Partnership Grants, The Royal Society, 6–9 Carlton House Terrace, London SWY1 5AG.
Tel 0207 451 2561
Fax 0207 451 2693
Email kirsty.brown@royalsoc.ac.uk
Website www.royalsoc.ac.uk/education/partnership.htm

Events

7-16 March

National Science Week

Aims to celebrate science and its importance to our lives, giving people in the UK the chance to participate in science activities and experiments and to engage in science discussions in their local area.

Details: Lisa Jones, National Science Week Officer, the British Association, 23 Savile Row, London W1S 2EZ.

Tel 0207 973 3074 Fax 0207 973 3051

Email nationalscienceweek@the-ba.net

Website www.the-ba.net

11 March

Working with schools on sustainable development education

This one-day event will explore practical examples of how organisations can work in partnership with schools and young people to develop understanding of sustainable development and support informed action. This course is for teachers, local authority officers, community and environmental staff who work with schools.

Venue: Birmingham.

Cost: £100 +VAT for voluntary organisations, £150 +VAT for local authorities, statutory organisations and other non-voluntary.

Details: Pat Brayshaw or Marianne Wain, ETN, c/o BTCV, Red House, Great Barr, Birmingham B43 6LZ.

Tel 0121 358 2155

Fax 0121 358 2194

Email ETN@ukgateway.net

Website www.btcv.org/etn

21 March

Growing up in greener grounds conference

The aim is to share the knowledge gained from two school grounds programmes, Growing for Grounds and Capital Grounds. Using a variety of workshops the aim is to transfer ideas, skills and knowledge for delivering healthy and sustainable school grounds projects.

Venue: Conway Hall, 25 Red Lion Square, London WC1R 4RL.

Details: Pippa Doyle, Learning Through Landscapes in London Events, 77 Bexley Rd, London SE9 2PE.

Tel 0208 850 3112 Fax 0208 859 2180

Email pdoyle@ltl.org.uk

22 March

Alternative approaches to education

A seminar to help people find out about different educational approaches and schools, working to change your child's school and educating your child yourself.

Venue: Quaker Meeting House, Woodhouse Lane, Leeds LS2.

Cost: £25.

Details: Alternatives in Education, Unit 8, Fairseat Farm, Chew Stoke, Bristol BS40 8XF.

Email info@AlternativesInEducation.co.uk

Website www.alternativesineducation.co.uk/seminars.ht

11 April

Council for Environmental Education and Development Education Association joint national conference: Learning for sustainable development – towards a national strategy

Supported by National Grid, the conference aims to promote the need for a national strategy for education for sustainable development (ESD); to learn from approaches in other countries and contexts; and to build capacity for evaluation and effective practice.

Speakers will include Sir Geoffrey Holland, Chair of the Government's Sustainable Development Education Panel. Workshops will focus on evaluation and the identification of good practice. Also supported by the Department for Environment, Food and Rural Affairs (through the Environmental Action Fund), the Department for International Development, and the Department for Education and Skills.

Venue: Bristol.

Details: Anne White. Tel 0118 950 2550 Fax 0118 959 1955

Email awhite@cee.org.uk Website www.cee.org.uk



31 March

Renewable energy in our schools

Second 'Being Energy Smart' conference organised by the Centre for Research, Education and Training in Energy (CREATE) and the Energy Education Forum (EEF). Aims to stimulate action and support for renewable energy systems in UK schools.

Venue: Austin Court, 80 Cambridge Street, Birmingham, B1 2NP.

Cost: £35 for EEF members; £45 others.

Details: Ann Saffery, CREATE, Kenley House, 25 Bridgeman Terrace, Wigan WN1 1TD.

Tel 01923 661373 Fax 01942 322273

Email ann@create.org.uk

Website www.eef.org.uk/news.asp

15 April

Running an out-of-hours learning programme

This one-day event is for those considering an out-of-school hours learning programme for the first time, or looking for new ideas to expand what they already provide, or wishing to share experiences. The event will cover types of activities that could be included, planning and evaluation, building partnerships with schools, community groups and others to deliver programmes, health and safety considerations and funding availability.

Venue: Birmingham.

Cost: £100 +VAT for voluntary organisations, £150 +VAT for local authorities, statutory organisations and other non-voluntary.

Details: Pat Brayshaw or Marianne Wain, ETN, c/o BTCV, Red House, Great Barr, Birmingham B43 6LZ.

Tel 0121 358 2155

Fax 0121 358 2194

Email ETN@ukgateway.net

Website www.btcv.org/etn

3-5 September

Sustainable Development and the Governing of Rural and Urban Areas

Annual conference of the Royal Geographical Society (with the Institute of British Geographers).

Venue: Royal Geographical Society, London.

Website www.ex.ac.uk/eborg

8-12 September

Festival of Science 2003

The theme this year will be 'sustainable science'. Highlights will include the BA Education section which will be looking at how the Johannesburg Summit of 2002 has changed the way sustainability issues are taught, both in schools and in a more informal way; and a debate session on scientists for global responsibility.

Venue: University of Salford.

Details: Steven Chapman, Young People's Programme Manager, the BA, 23 Savile Row, London W1S 2EZ. Tel 0207 973 3057

Email steven.chapman@the-ba.net

Website www.the-ba.net

● For more events visit www.cee.org.uk

Publisher: The Council for Environmental Education (CEE), representing 80 national organisations, produces *CEEmail* to save teachers time accessing information and resources.

For further information please contact CEE at: **Council for Environmental Education, 94 London Street, Reading RG1 4SJ.**

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