

[e] ENERGYWATCH

THE SCHOOLS ENERGY JOURNAL FROM **CREATE**



06 _ KEEPING YOU INFORMED
_ ON ENERGY MATTERS
_ AND CLIMATE CHANGE

CREATE

CENTRE FOR RESEARCH, EDUCATION AND TRAINING IN ENERGY

SUMMER**2006**

Welcome to the summer 2006 edition of [e]ENERGYWATCH, the electronic energy journal for schools in the U.K.

We hope you enjoy this issue and if you have any opinions, comments or questions we encourage you to email us - energywatch@create.org.uk

HOTSPOT

IMPORTANT ENERGY NEWS IN BITE SIZE CHUNKS

KIDS STUFF

The Government's Climate Challenge web site, www.climatechallenge.gov.uk, now has material to aid young people to learn about climate change. There is a simple animation to explain the basics of climate change.

www.climatechallenge.gov.uk

On the Managenergy website there are games, downloads and photos which will help children to understand how every day actions affect the environment around them. The site is aimed at two age groups, the 7-11's and 11-15's as well as having a section with resources for teachers.

www.managenergy.net/kidscorner

ENERGY EFFICIENCY ADVICE

The Carbon Trust provides a series of publications advising schools on ways to save energy. There are general publications such as "How to reduce energy costs in schools by implementing simple energy efficiency measures" and "Saving energy - a Whole School Approach", plus more specific documents focusing on energy systems and equipment used in schools. To find out more and order these publications visit the website

www.thecarbontrust.com

WHAT ARE WE WAITING FOR?

Greenpeace has launched an innovative new short film showing how the UK can answer the crucial energy question it now faces - how to provide the country with a secure, clean energy supply and fight climate change without treading the potentially dangerous and environmentally harmful nuclear path. Titled "What are we waiting for?" it is available by contacting Greenpeace at info@uk.greenpeace.org or telephoning 020 7865 8100

REDUCING CARBON EMISSIONS THROUGH THE CREST AWARD

In partnership with United Utilities CREATE has developed an innovative programme for secondary school pupils to help them obtain a Bronze CREST award.

During June, pupils from Hawkley Hall School in Wigan will be visiting the Leigh Environmental Education Centre, Greater Manchester, to investigate the potential for wind power, solar power and energy efficiency at the Centre. Back at school, they will design a model in light of their investigations which will show how the Centre can reduce its carbon emissions and help it become an Eco Centre.

Further details can be obtained from nfo@create.org.uk

DfES LAUNCHES SUSTAINABLE SCHOOLS WEBSITE

The DfES Sustainable Schools site is designed to support schools on their journey to sustainability, introducing the principles of sustainable development and offering guidance on how to embed these principles into the heart of school life. The site provides useful information for all sectors of the school community, including the leadership team, the management team, teachers and parents, and offers a number of excellent online and downloadable tools (auditing, benchmarking, environmental assessment) to help schools identify the best route to becoming more sustainable.

The site has been designed so users can search by subject, Key Stage, theme and keyword. The resource library offers a comprehensive online directory providing access to hundreds of teaching resources, places to visit, a useful A to Z directory of organisations that work in the field, information about related programmes and essential reading, case studies and an inspirational image gallery. Similarly, the support section contains information about funding, professional development opportunities, research and regional landing pages. Users can also search for the latest news, events and press releases.

www.teachernet.gov.uk/sustainableschools

UK CLIMATE CHANGE PROGRAMME 2006

A new UK Climate Change Programme was published by the Government at the end of March 2006. This followed an extensive review, launched in September 2004, of the existing Programme. The new Climate Change Programme sets out the country's policies and priorities for action in the UK and internationally. Climate Change is a global problem, so the UK will strive to secure global action on the scale needed to tackle it. Further action will also be taken at home, to meet the country's commitments and demonstrate that climate change can be tackled without damaging the UK's economy.

Download the programme at: www.defra.gov.uk/environment/climatechange/uk/ukccp

IS THIS THE GREENEST SCHOOL IN THE COUNTRY?

A recent BBC Countryfile programme named the St Francis of Assisi Academy in Liverpool as the greenest school in the country. The school is flying the flag for an education that's founded in environmental awareness and sustainability. It is the first academy to make the environment its specialism.

The school is arranged around a main 'Eden Project' style atrium, collecting the sun's heat and light in an object lesson of passive solar design. The solar theme continues with photovoltaic panels to generate electricity and solar heating for the water. Seeded green roofs boost both insulation and biodiversity and a rainwater harvesting system enables the flushing of toilets with grey water.

St Francis of Assisi Academy is not just about design and construction. The environment permeates throughout the curriculum with pupils actively engaged in recycling and biodiversity activities and overseeing the environmental performance of the school through an elected Eco-Committee.

So is St Francis of Assisi Academy the greenest school in the country? Do you know of a better one? Is it your school? If so let us know!

www.theacademy-sfa.co.uk

News Round Up

SUSTAINABLE SCHOOLS CONSULTATION

Schools are being urged to prepare their pupils for a lifetime of sustainable living as part of a new consultation from the Department for Education and Skills launched on 15 May.

The Government's aim is for all schools to be models of sustainable development for their communities by 2020. The consultation aims to get feedback from schools and those who work with them about how they can become models of sustainable development, and what support they need to do so.

While it's true that sustainable development has been embedded in the curriculum for some years, it hasn't always transferred to the whole school environment.

The consultation documents ask schools to look at their activities across eight themes or 'doorways', including food and drink, purchasing, waste, energy and water. They include case studies of schools who are already tackling these areas, like Cassop Primary School in County Durham. They've reduced their energy bills by a third thanks to the wind turbine installed in the school grounds in partnership with Durham County Council and Northern Electric. Low-energy light bulbs are in use throughout the school and elected pupils, known as Energy Monitors, graph and analyse the school's energy and water use to identify efficiency savings.

And in what is believed to be a first for government, the consultation is climate neutral. Working with Climate Care, the Department has offset the CO2 emissions arising from all printing and distribution, consultation events, and response routes. The money used to offset these will go towards sustainable energy projects, like the production of energy efficient cooking stoves for schools in India and energy efficient lighting for schools in Kazakhstan.

The consultation started on 15 May, with responses due by Friday 1st September 2006.

To respond, or find out more, visit:
www.dfes.gov.uk/consultations

GLOBAL AMBITIONS FOR GREEN MACHINE

Millions of low-cost, low-energy laptops are set to reach children in schools across the southern hemisphere within a year. This spectacular bid to banish the 'digital divide' is the brainchild of One Laptop per Child (OLPC), a not-for-profit organisation set up by IT guru Nicholas Negroponte at Massachusetts Institute of Technology.

OLPC reckons that mass production of at least 5 million laptops will keep costs under \$100, so will the fact that the machine is not designed to store huge amounts of information, and the choice of a screen lit by LEDs rather than the conventional LCD type. Such features should also keep its energy consumption minimal – to the point that it can be powered by winding its crank handle when necessary.

For further details see
<http://laptop.media.mit.edu>

TODAY, TOMORROW, TOYOTA

Thanks to car company Toyota, innovative Eco-Schools in England and Northern Ireland can receive a Turbo Boost cash injection of up to £15,000 for a sustainable mobility project. Toyota Motor Europe has struck a deal with the Eco-Schools programme to share out over £15,000 that will help schools to realise their sustainable mobility dream. The car manufacturer is to fund a European competition to promote innovative thinking and environmental problem solving in schools, supported by UNEP.

England and Northern Ireland have been chosen to take part in the two-year pilot, with support by Toyota GB's Corporate Social Responsibility Department, alongside Italy, Germany and Spain. The theme for this year is sustainable transport. Eco-Schools is looking for schools who have a new and interesting idea to provide a sustainable transport solution for pupils. The more creative and innovative the idea that is put forward, the better. Just remember that you may be given the cash to make it happen!

Visit www.eco-schools.org/innovation

News Round Up

DOING THE POSITIVE THING

WRAP has launched the biggest kerbside household battery collection trial in the UK

In March, WRAP (the Waste & Resources Action Programme) launched phase one of the biggest household battery collection trial ever carried out in the UK.

WRAP are working in partnership with a range of local authorities and not-for-profit organisations that already run recycling collection services. The trials will initially cover over 350,000 households in a mixture of high-rise, urban and rural areas across England, Scotland, Wales and Northern Ireland.

Each household will receive an information leaflet and dedicated collection containers (either sealable bags or small boxes), giving full details of the scheme in advance of the first collection date. They will then be asked to put their container of spent and unwanted batteries out along with other recyclable materials as part of their normal recycling collection scheme.

The containers will show the types of household batteries that can be collected which include AAA and AA cells, sizes C and D, button, mobile phone and laptop batteries. Iconic images, striking colours and positive messages will be used on the leaflets and bags to encourage a high impact response. A national customer helpline will be available should people have any queries.

Chris Davey, Manager Local Authority Relations, WRAP said:

“This is the biggest household battery recycling initiative ever run in the UK. We know that the average household uses about 21 batteries a year and that around 600 million UK household batteries are sent to landfill every year. By making battery recycling simple and easy we hope to encourage people to recycle all their old household batteries rather than throwing them away.”

Supported by funding from Defra through the Business Resource Efficiency and Waste (BREW) Programme and the devolved administrations in Scotland, Wales and Northern Ireland, the trials form part of a wider effort to develop cost-effective ways for the UK to meet the forthcoming EU Batteries Directive which is expected to require the collection of 25% of household batteries by 2012. The results of the various trials will be used to help Government identify the best mechanisms and most efficient methods of collection for rolling out across the UK.

G&P Batteries Ltd, the UK's largest waste battery collection and recycling company will act as the recycler for the scheme. G&P recently opened the UK's first recycling plant for the most common single use batteries. Other battery chemistries (types) will be sorted and sent to specialist recycling companies around Europe.

The trial is likely to be extended in the future to include other methods of collecting used household batteries such as via 'drop off' points at supermarkets.

For further details of Doing the Positive Thing and other WRAP initiatives visit

www.wrap.org.uk

Sustainable Energy in Schools

TWO UK SCHOOLS WIN LEADING GREEN ENERGY AWARD

Two showcase primary schools have been selected as joint winners of the prestigious Ashden Awards for Sustainable Energy recognising their commitment to integrating green energy use into all aspects of school life and a strongly pupil-led approach.

This year for the first time, the Ashden Awards - known across the UK for their promotion of innovative local energy schemes - have included a Sustainable Energy in Schools category in recognition of the important role that schools can play in promoting green energy solutions.

The joint winners are:

Cassop Primary School in County Durham, commended by the judges 'For showing how generating renewable energy on site can spark real interest and understanding across the school as a whole - while acting as a beacon for others'.

Ashden Award judge is informed of the energy monitoring in Cassop



For full details see www.ashdenawards.org/media_summary06_UK_cassop_school

Eastchurch School on the Isle of Sheppey in Kent, congratulated by the judges 'For the way in which they have galvanised their young pupils to become enthusiastically involved in responsible energy use throughout the school'.



Eastchurch pupils demonstrate their outdoor display on renewable energy

For full details see www.ashdenawards.org/media_summary06_UK_eastchurch_school

Both schools actively use and promote renewable energy technologies, have adapted their buildings to make them more energy efficient, and integrated sustainability right across the curriculum. Their ground-breaking work is inspiring other schools in the UK, in Europe and even as far afield as Africa.

"The Ashden judges have been immensely impressed with the quality and scale of the work being achieved in these schools. They are inspiring examples of how to integrate sustainable energy into the landscape of the school, into curriculum activities and into the childrens' everyday behaviour. From learning to switch off lights when they leave a room, to understanding how energy is generated from a wind turbine or solar panels, the pupils are becoming the motivating force in their communities to address climate change" says Sarah Butler- Sloss, Founder and Chair of Ashden Awards for Sustainable Energy.

British schools spend over £400 million annually on energy. But a growing number are implementing energy efficiency measures in efforts to reduce costs and avert the threat of climate change, thereby helping the government meet its 20% target for reducing CO2 emissions by 2010. Already almost 4000 schools around the country are working to achieve 'Eco-School' status - 525 have already succeeded.

The winning schools will both receive £10,000. Award money will be used to develop the schools' energy initiatives further - adopting other renewable technologies or extending their energy education programmes.

Renewables in Schools

MICROGENERATION GRANTS AVAILABLE TO SCHOOLS

The DTI's Low Carbon Buildings programme is open for business. It provides grants for microgeneration technologies for householders, community organisations, schools, the public sector and businesses. Microgeneration is the stand alone generation of low carbon heat and/or electricity which for example, could be through solar photovoltaics, wind turbines, etc.

The programme will run over three years and replaces DTI's Clear Skies and Solar PV programmes, which closed for applications on the 31st March 2006. The programme is UK wide (apart from the Channel Islands and the Isle of Man) and will demonstrate how energy efficiency and microgeneration will work hand in hand to create low carbon buildings.

Two streams of grants are available:

- Stream one** this applies to smaller projects for home owners, community groups, schools and small to medium enterprises among others.
- Stream two** this applies to larger projects which include larger businesses, community organisations and the public sector.

Under Stream one, schools will be able to apply for 50% funding up to a maximum of £30,000.

For further details of the programme visit: www.est.org.uk/housingbuildings/funding/lowcarbonbuildings

CREATE is able to provide advice on appropriate microgeneration technologies. Initially we would visit a school and carry out an assessment of the options for renewable energy and energy efficiency measures given the school's location, natural resources and current energy arrangements.

We would discuss with the governors and head teacher any specific issues that would negate a particular measure or option being implemented, for example extent of vandalism, and identify the level of support and commitment for such a project within the school as it is always our intention that the project is "owned" by the school.

We would provide a scoping study of the most cost effective renewable energy system(s) and energy efficiency measures that could be installed in the school. Additional support could be provided for schools wishing to involve pupils and the local community in the microgeneration project.

An example of this type of activity in action, at Spen Valley Sports College Huddersfield, can be found on the CREATE website at:

www.create.org.uk/schools/teachers_semanagement.asp

If your school is looking to install microgeneration technologies and needs specialist advice from an organisation involved in school energy projects for nearly 20 years, please contact CREATE on 01257 422800 or email info@create.org.uk

Climate Change

Nine young Climate Change Champions for England Unveiled

In May, England's nine new youth climate change champions met Prime Minister Tony Blair and Chief Scientist Sir David King today to launch their year as Climate Change Champions.

The champions are at the start of a year in which they will aim to communicate about climate change in the regions and the role that young people can have in tackling it. They will also have a number of engagements throughout the year, including a fact-finding tour to Switzerland to witness the visual effects of climate change at the Gurschen glacier.

The nine winners were chosen from more than 600 entries following a competition asking them to use different types of media to communicate the threats of climate change in their regions.

A total of 39 youngsters, aged between 10 and 18, were then interviewed in London, with the successful nine being chosen for their enthusiasm and passion about climate change, knowledge of the subject, ability to communicate, star quality and understanding of their region.

The appointment of the nine champions is part of the Government's Climate Change Communications Initiative, "Tomorrow's Climate, Today's Challenge" – a three year drive to communicate the threat of climate change and the need for everyone – Government; industry and individuals to help tackle the problem. The initiative was launched last December.

The young climate change champions will spend a year "in office" spreading the word about climate change to their region through local activities.

Environment Secretary David Miliband said he was delighted with the high calibre of the winners entries:

"Clearly these youngsters have put in a tremendous amount of effort in learning more about climate change. They understand that tackling climate change is the largest single environmental issue that we all face in this generation."

Speaking at a press briefing to unveil the winners, Environment Minister Ian Pearson added:

"These nine champions show there is a great deal of interest among young people on environmental issues. I look forward to working alongside them in the regions during the coming year."

Prime Minister Tony Blair said: "If we are going to raise awareness about climate change and what we can all do in our own lives to stop it, we need people up and down the country to take an interest. These young people have shown their commitment to the cause – and with our help, they can now spread the word about climate change."

Biographical details of the nine climate change winners:

Zoheb Khalil (10), Halifax, West Yorkshire for his climate change DVD. Zoheb attends the Parkinson Lane Community Primary School, Halifax, representing the Yorkshire and Humberside region.

Sarah Crudgington (12), Basildon, Essex for her newspaper report, questionnaire and leaflet. Sarah goes to Bromfields School, Wickford, and is the champion for the East of England.

Lucy Stansfield (13), Wellington, Somerset for her DVD news report on climate change. Lucy Anne attends Wellington School and will represent the South West region.

David Saddington (13), Stockton-on-Tees, Teeside for his newspaper article on climate change. David goes to Blakeston School, Stockton-on-Tees and is the champion for the North East region.

Aazim Ihsan (13), Cheam, Surrey for his climate change T-shirt. Aazim goes to Royal Russell School, Croydon and will represent the London region.

Jordan Stephens (14), Hove, East Sussex for his radio report within an extract from a radio show. Jordan attends Blatchington Mill School, Hove and is the champion for the South East region.

Carri Swann (15), Beeston, Nottinghamshire for her newspaper article on her own website. Carri goes to Nottingham Girls High School, and will represent the East Midlands region.

Stephanie Lynch (16), Prescott, Merseyside for her television news report. Stephanie attends Carmel College, St Helens and will represent the North West region.

Sofia Zabolotskih (17), of Rugby School for her flash file climate change entry. Sofia is the West Midlands climate change champion.

The champions' and semi-finalists' work is on display at:

www.climatechallenge.gov.uk

Climate Change

FoE launches Climate Change Resource for Schools

Friends of the Earth have launched a new resource for schools "Shout About Climate Solutions 2006", which is aimed at helping teachers, youth workers and young people teach 11 to 13 year olds about how to tackle climate change through electricity, transport and heating. In addition teachers are also encouraged to register for "Shout About Climate Solutions" Week will take place on 6th - 10th November 2006.

The resource is linked to national curriculum areas of science, maths, geography, CDT and citizenship, and it also includes activities such as encouraging students to promote energy efficiency to other young people, designing an energy efficient house and looking at different renewable energy sources.

Friends of the Earth's education coordinator, Vicki Felgate, said:

"The Shout About Climate Solutions resource offers teachers and youth workers easy to use information on climate change as well as ideas and resources which will help them encourage young people to think about the solutions and their role in tackling it - in their homes and their schools."

For further details visit

www.foe.co.uk/learning/educators

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