

Worldwise

Geography Awareness Week

June 26th-30th 2006

This year's theme is ESD: Education for Sustainable Development

"Economic development, which does not compromise the ability of future generations to enjoy economic development themselves." A possible, albeit narrow definition of ESD (R D North, 2005)

Welcome to the Geographical Association's Geography Awareness Week (GAW), which is just one of a range of Worldwise student oriented activities aimed at promoting fun and engaging geography in schools (see also the Worldwise Local Quiz and the Online Quizzes). We hope that you enjoy using the resources on the following seven panels, either during the designated week or at any other time in the school year that may be more convenient for you and your pupils. Each panel focuses on a different aspect of ESD.

We hope that examples of students' work showing their engagement with this year's GAW theme will be submitted to us here at the GA (please email details or provide school or department website page links to: rgill@geography.org.uk). The best entries will be showcased via the GA website and the 2007 GA Annual Conference. Entries from the KS3/4 category can be used in support of your school's overall involvement in Worldwise, with a view to possibly being invited to take part in the 2007 Worldwise Challenge (a free-of-charge residential weekend of fieldwork activities for Y8-Y10 students).

The following websites contain some useful background information on this year's ESD theme:

GA- <http://www.geography.org.uk/projects/gtip/thinkpieces/esd/>

QCA- www.nc.uk.net/esd

In addition, the Spring 2006 edition of the GA *Primary Geographer* journal has several articles on ESD.

We believe that the suggested GAW activities, outlined on the following panels, will allow students to appreciate the range of views and issues that surround this important subject. They should also provide opportunities for students to reflect on and clarify their own views, ideas, values, attitudes and experiences. With an improved understanding of ESD, pupils should start to envision the sort of future that they might want for themselves and for society in general.

The suggested GAW activities are intended to use a range of resources, help students to develop autonomous and critical thinking, and develop skills of enquiry, creativity, imagination and collective decision making. The suggested activities could lead pupils into discussions about issues that might seem beyond their control. Local community fieldwork may provide a good opportunity to counteract this, by encouraging students to look critically at their everyday lives and their own immediate surroundings.

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ESD Panel 1: Citizenship and Stewardship

- Pupils could be asked to investigate ways of initiating how to make their own school more environmentally sustainable e.g. setting up of a school council or a groundwork trust or even going down the 'Eco-school' route (for all key stages).
- Pupils could be encouraged to find out about local renaissance projects and how they could get involved (for all key stages).
www.shorehamrenaissance.org.uk (look for reference to the 'Junior Day')
- Sketches and photographs of the local landscape could be used to encourage a discussion around stewardship and responsibilities for local environments.
- Consider what makes a certain place attractive or unattractive?
 - Ask pupils to choose words that could describe different places e.g. smelly, dirty, grey, open, airy, quiet
 - Then choose pairs of words that are opposites and carry out a bi-polar analysis of different places or areas to try to find out whether they are attractive or unattractive
 - What could be done to make an unattractive place more attractive?
 - Does everyone agree that the same places are attractive and unattractive?
 - What potential problems does this analysis suggest for planners and other people involved in designing local environments?
- Use the 'Six Thinking Hats' technique (Edward de Bono) to look at a planning issue from different points of view; each 'Thinking Hat' represents a different style of thinking:
 - White Hat – to focus on the data available; look at the information you have and see what you can learn from it
 - Red Hat - wearing this hat you look at problems using intuition, gut reaction, and emotion; try to think how other people may react
 - Black Hat - look at all the negative points; look at any decision cautiously and defensively; try to see why it might not work
 - Yellow Hat – this is the optimistic viewpoint that helps you to see all the benefits of any decision; yellow hat thinking helps you to keep going when everything looks gloomy and difficult
 - Green Hat - stands for creativity; it represents a free wheeling way of thinking in which there is little criticism of ideas
 - Blue Hat - representing process control; this is the hat worn by people chairing meetings

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ESD Panel 2: Interdependence

Interdependence is about causes, effects and consequences at a range of scales, from personal to global. This panel provides an example of how teachers may plan for progression using interdependence themes.

- Where pupils have a basic understanding they:
 - Know about simple cause and effect
 - Can identify human and physical ‘concrete’ connections between geographical phenomena
 - Can identify links between one place and another

Example: The purchase of a banana here creates jobs for people elsewhere.

- Where pupils have a more developed understanding they:
 - Understand about multiple causes and effects
 - Know about human and physical interconnections between geographical phenomena
 - Can identify and explain some economic, social, political or environmental links between places

Example: The purchase of a banana here has influence on groups of people in the supply chain.

- Where pupils have an advanced understanding they:
 - Are able to weigh up the importance of different related causes and effects
 - Understand that there is some uncertainty in causes and effects
 - Understand human and physical interdependence between geographical phenomena
 - Can identify and explain how interdependence between places can be climatological, geomorphological, ecological, economic, technological, demographic, social, cultural or political

Example: Trade in bananas illustrates power relationships between people in different parts of the world. Governments of richer countries make decisions at a global scale, to reduce or increase tariffs and consequently banana farmers locally benefit or lose from this. As a result the economy of a small country can be affected.

- ‘The World on Your Back’ (activity idea)
 - Pupils record the places where their items of school clothing were manufactured
 - A collaborative mapping exercise can draw out interesting patterns linking pupils with different parts of the World
 - Further discussion can develop linking the shop it was purchased from with the country of manufacture e.g. are blazers/sweatshirts from a supermarket (that cost less), from different countries to those that were purchased from a school outfitters (and cost more)?

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ESD Panel 3: Sustainable Change

Understanding that there is a limit to the way in which the world, particularly the richer countries, can develop and that the consequences of unmanaged and unsustainable growth are increased poverty and hardship, and the degradation of the environment, to the disadvantage of us all

- Pupils could investigate how they attempt to follow the THREE Rs—reduce consumption, reuse goods, recycle waste by devising and completing a class survey to be based on their own homes, e.g. do we recycle newspapers/take clothes to or buy clothes (reuse) at charity shops—always, sometimes never.
- Pupils could present and discuss their results and findings. How good are we at following the three Rs? What would help us to do better? What might happen—for instance to the earth's resources, the environment, to our quality of life, if we do not follow the three Rs?
- Pupils look at how the 3Rs are, or could be followed in their own school e.g. saving energy, walking to school or sharing cars; they could also develop a 3Rs code for school.
- KS3 pupils could investigate and map provisions for the 3Rs in their own town or district. What things can be recycled or reused and where? Where are recycling facilities, landfill sites located? Are they in the best locations? This last topic in particular could be researched via your local council website. The Friends of the Earth website, www.foe.co.uk (word search 'waste') also has a number of useful pages which focus on the 3Rs.
- Some useful resources on sustainable change:
 - Use the planet.com website at Channel 4 to find fun games and activities
<http://www.channel4.com/learning/microsites/P/planet/menu.html>
 - Use the "recycle city game" to control recycling in a city
<http://www.epa.gov/recyclecity/>
 - Recycle more website
<http://www.recycle-more.co.uk/schools/homepage.aspx>
- Some other activity ideas:
 - Photo study e.g. pollution/litter. How to improve the area (for primary – KS3)?
 - Lunchbox survey – Ask pupils to save everything from their lunch that they would have thrown away, e.g. drinks cartons/cans, paper wrappers, etc. Weigh it and try to find out how much it costs to collect and remove that much waste. Where will the waste end up? Can you ask someone from the local waste management service to come and do talk about the life cycle of a piece of rubbish (for primary)?
 - Practical sustainability actions e.g. switching off lights. Make each student in turn responsible for switching off the light every day (for foundation stage)
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ESD Panel 4: Needs and Rights of Future Generations

Learning how we can lead lives that consider the rights and needs of others, and that what we do now has implications for what life will be like in the future. This is at the heart of the concept of sustainability - making sure that we act responsibly in terms of our own use of resources (including oil and electricity) and protection of valuable ecosystems.

- Travel-to-school patterns - find out how children get to school by designing a simple questionnaire. The main modes of transport are likely to be car, bus, bike, rail and on-foot. Which is the most sustainable and why? Get the children to devise strategies to reduce their transport impact e.g. changing transport type or walking. How might they influence people's decisions about the way they come to school? How can these small actions be linked with wider concerns about climate change and rising sea levels?
- Surveying the schools grounds - pupils produce a sketch-map of the school grounds. Identify different land-uses and parts, e.g. car park, grass, hard standing, woodland, buildings etc and colour code these onto the map. Are all the spaces being utilised to their full extent? How could the grounds be improved e.g. an area for seating or growing vegetables? See <http://www.ltl.org.uk/secondary/growing-success/documents/Growing%20food.pdf> - this may lead to further work e.g. microclimate measurements to determine the suitability of an area.
- An audit of energy usage - there is much in the news about 'energy security'. Do we use too much energy? Conduct an audit of electricity usage at home and school and find those 'hotspot areas'. Simply count up the number of appliances and lights in each room, noting down their wattage (you can usually find this on the back of, or underneath any equipment; otherwise an educated guess will suffice). Draw up a base map or plan of the rooms surveyed and colour code the map according to potential energy usage, i.e. red for high, yellow for medium, green for low etc. This study could be developed further by calculating how many hours each day that a light or appliance is used for.
- Some useful websites
 - Calculate your own 'ecological footprint'; how much impact are you having as an individual and how can you reduce it?
<http://www.bestfootforward.com/footprintlife.htm>
 - Visit the BP website and go on their 'carbon calculator' – this will assess your household carbon footprint http://www.bp.com/liveassets/bp_internet/carboncalc/
 - Try this <http://www.myfootprint.org/> footprint calculator. Easy to use and good fun!
 - If you are looking for ways of greening your travel and transport visit this website; it will show you where there is a good cycle route near to you
<http://www.sustrans.org.uk/>
 - The Sustrans charity (see above website) also runs the 'Safe Routes to Schools' programme <http://www.saferoutestoschools.org.uk/> A 'School Travel Kit' can be downloaded for free from this link

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ESD Panel 5: Uncertainty and Precaution

Realising that as we are learning all the time and that our actions may have unforeseen consequences we should adopt a cautious approach to the welfare of the planet. The precautionary principle guides human activities in personal, social, economic, scientific and technological decision making in the light of uncertainty. That is, weighing up the evidence before making a decision, similar to a criminal being treated as innocent until proved guilty.

- Pupils can be given resources about a particular local issue – for example:
 - The New Mersey Crossing;
 - Should the rare Ladies Slipper Orchid stand in the way of the new bypass; or
 - Any other issue (real or made-up) from your immediate locality;

They should then be encouraged to weigh up the arguments and evidence carefully from different perspectives, or whilst assuming different roles in the group. A ‘PESTLE’ analysis might be useful – giving consideration to the Political, Economic, Social, Technological, Legal and Environmental issues.

Ref: “Barnaby Bear and the Badger Tunnel” (KS1)

- *‘Nuclear Power contributes far more to sustainability than recycling, wind turbines, organic farming and public transport which contribute little or nothing to sustainability’.*

Pupils could address the current nuclear power debate in the UK based on this statement with reference to precautionary principles. A useful tool here could be a PMI (Plus, Minus, Interesting).

- Students could also use this principle to undertake the following activities:
 1. Study the release and use of toxic substances, the exploitation of resources, and physical alterations of the environment that have had substantial, unintended consequences affecting human health and the environment
 2. Construct associated thematic maps using GIS to help students make linkages with asthma rates, birth defects and learning deficiencies, species extinctions and worldwide contamination with toxic substances and nuclear materials
Ref: “The Precautionary Principle”, Montague M 19/02/98 (www.biotech-info.net)
 3. Prepare the evidence for a class discussion on the strategies available to the British Government in response to the threat of bird flu H5N1

Other ideas - Computer games such as like *SimCity* are really good for demonstrating these issues of uncertainty. *SimCity* allows you to make changes to the urban and rural environment that you are building and see the impact that these changes have <http://www.thesims.uk.ea.com/>

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ESD Panel 6: Quality of life

Recognising that for any development to be sustainable it must benefit people in an equitable way.

- Pupils should consider the point that quality indicators are often western constructions of what quality of life is about e.g. having money rather than measuring something like happiness.
- Pupils should list what they need in life to make it comfortable, happy or better; these can be written down on pre-prepared blank cards (suggested maximum of 18).
- Sort the cards into two piles, one of NEEDS and one of WANTS (this may need some explaining).
- Working in pairs, pupils should merge the two piles and select their top preferred 9 cards.
- Diamond rank the cards for the question ‘What is most important to me?’
- It is likely that those cards towards the top will actually be WANTS and the NEEDS, which we usually take for granted, will be towards the bottom.
- Introduce the terms ‘standard of living’ and ‘quality of life’. Again in pairs come up with a definition for both, or alternatively use as headings to reclassify the cards. Typing “define standard of living” or “define quality of life” into an Internet search engine such as Google - <http://www.google.co.uk/> - should highlight many more!
- To help to draw out the sometimes very subtle differences between the above two terms, pupils could be asked to write a slogan summarising what each term means to them and share it with the class.
- Some other ideas for activities and discussion topics could include the following:
 - A similar exercise to the one above could easily be developed to empathise with different groups of people in a LEDC that have been studied, for example the groups of people involved in the development of a hotel in the rainforest
 - Exploration of the positive and negative aspects of improving standards of living and people’s quality of life could be explored through role-play.
 - Who is responsible for our quality of life?
 - How does an increase in standard of living affect the environment and other people’s lives, both now and in the future?
- Other useful resources:
Primary Geography Handbook, pp296-8. Stephen Scoffham (Ed), GA 2004

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ESD Panel 7: Diversity

Understand the importance and value of diversity in our lives-culturally, socially, economically and biologically - and that all our lives are impoverished without it.

- Pupils could write down or describe how they dispose of unwanted food, bottles, cans, paper etc to distinguish between actions that are wasteful and actions that are more sustainable
- Products could be classified into those that are wasteful, and in what way or why, compared with those that are more sustainable and in what way or why?

A pupil's locality will have changed, and more than likely become more diverse over time in many ways. These changes could be investigated directly, or through enquiry:

- Land-use maps will reflect the diverse economic changes that have occurred in the locality and stimulate further investigation into the human and social impact that this has had both locally, and maybe further a field. Pupils could nominate a building of special interest and explain why they think it should be listed or decide how an old building could be found a new use, making its conservation economically viable.
- Census data will reveal the nature of the changes that have affected cultural and social diversity in their locality over past generations. In rural areas pupils could plot second homes in tourist areas on a base map e.g. Castleton, in The Peak National Park, and discuss the impacts on the village infrastructure of people not living there for much of the time. In urban areas pupils could further investigate the impact such changes in cultural diversity have had on the area including land use, health, employment etc.
- Biological diversity will have changed through previous generations. Pupils could investigate the threats to biodiversity (species and habitats); pollution, a local development, introduced species. Compare two farms, possibly locally, where one is organic and sustainable and the other applies intensive farming techniques.
- Find out what threats there are to a local nature reserve, such as new housing developments, or how a nature reserve has been developed in a disused quarry, brick works or gravel pit e.g. Needingworth Wetland Project, Cambridgeshire, www.qpa.org/natureconservation/bio_cal.htm
- Pupils could discuss how the issue could be viewed in terms of 'difference' being seen as either:
 - i. A positive i.e. diversity; or
 - ii. A negative i.e. discrimination
- There is plenty of scope for pupils to write geographical poems and songs, allowing them to draw upon a wide range of cultural sources
- Other useful references:
www.edenproject.com
www.eden-project.co.uk