

teaching about: SUSTAINABILITY

“A global human society, characterized by islands of wealth, surrounded by a sea of poverty, is unsustainable.”

Thabo Mbeki South Africa 2002

How far has the food in your trolley travelled? What will you do with all the packaging generated by your shopping? Is your phone charger switched on all the time? How did you travel to work today? Is there a hippo in your toilet?

With more than 6 billion people sharing our planet there’s a growing need for us to understand the mark we are leaving on it, as individuals and as communities. If our levels of consumption in the UK were repeated around the world we’d need an extra 8 planets by 2050. (Friends of the Earth, 2004)



Global footprints are a measure of human impact on the planet. They represent the land area needed to sustain a person or a population. Exploring sustainability through global footprints shows us how personal and collective action can support a world where we all live within the means of one planet.

“A footprint means pressing down and global means world, so ‘global footprint’ means pressing down on the world and we don’t want to press too hard’.”

a child’s definition of Global Footprint

Key themes for exploring sustainability include... **waste**... whatever is thrown away still exists... **water**... rainfall in London last year was less than in Nairobi and Istanbul... **food**... the average UK Christmas dinner has travelled 24,000 miles... **energy**... we can harness wind and solar power by using a washing line... **transport**... personal freedom comes with more pollution and congestion...

reduce... reuse... recycle... recharge... refill... repair... refuse... RETHINK

Secondary Resources

80:20 Development in an Unequal World KS4 (TIDE)
Comprehensive introduction to many major development, human rights & justice issues with statistics, case studies, graphs, websites.

Woven Lives KS2 (MUNDI)
Activity pack on the Maya of Guatemala exploring the social impact of change in & use over time. Includes a play, posters & audio CD.

World Map & Globe
Essential tools for everyday use in every classroom, ensure world maps are equal area, & sometimes non-Eurocentric.

Water Issues: local & global KS2 (TIDE)
Using plants to investigate sustainable development.
Practical ideas for using water issues as a way to understand sustainability.

Waking Up KS2 (TIDE)
make moving toys & puppets.

Toys & Tales & Puppets Unlimited KS1 & 2 (Tara Publishing)
Indian resources full of ideas for using everyday, found & reclaimed materials to make moving toys & puppets.

Toyng with Technology KS1 (Scottish DEC)
A design & technology resource exploring toys made from reclaimed materials. The video is not recommended.

Thengpalli & Forests & Futures (Hampshire DEC)
Cross-curricular resource focused on an Indian village & its remarkable environmental movement.

Primary topic poster sets: water, transport, cities KS1 (Oxam)
Poster sets with activities which enable young children to understand the issues.

Lessons in Sustainability KS2 & 3 (TIDE)
Practical activities, photocopiable stimulus sheets & internet links. Suggestions for starting points, planning, methodology & differentiation.

Growing Bananas KS2 & 3 (RISC)
A simulation game which raises awareness of the problems faced by banana producers, & introduces Fair Trade as an alternative.

Future of the Earth KS2 & 3 (Abrams)
A book of beautiful photos from the Earth From the Air collection.

Food & Farming KS2 & 3 (TIDE)
Explores food, farming & interdependence – case studies on strawberry growing in the UK, a Gambian school garden & banana production in the Windward Islands.

Education for Sustainable Development KS1-3 (Cheshire County Council)
Delivery of the key concepts of ESD through the curriculum & whole school ethos.

Creating Sustainable Environments in Our Schools (Trentam)
The report of a 7 year long project in schools across Europe focusing on children’s learning & whole school development.

Climate Change: local & global KS2 & 3 (TIDE)
Supports children’s enquiry into climate change.

Primary Resources

Bulb
Magazine for young people by young people, should be in every school library.

Citizenship for the Future KS3 & 4 (WWF-UK)
Encourages students to consider what kind of world they want to live in, & their role in creating it.

Climate Change: local & global KS2 & 3 (TIDE)
A useful resource which supports children’s enquiry into climate change.

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No Nonsense Guides: water, climate change, science (New Internationalist)
Sift scientific theory from fact & present the impacts on people, health, farming & wildlife, along with analyses of political negotiations & potential solutions.

Peter’s Projection Atlas, World Map & Globe
Essential tools for everyday use in every classroom, ensure world maps are equal area, & sometimes non-Eurocentric.

Rethink, Refuse, Reduce (Field Studies Council)
Practical guide to education for sustainability in a highly accessible format.

Sustainable Lifestyles? KS4 (Practical Action)
Tackles the complex economic & cultural issues associated with sustainable & appropriate technologies.

TUNZA (UNEP)
Youth magazine. www.unep.org/tunza/youth/Publications/index.asp

Wall to Wall Design KS3 (Practical Action)
Supports design & technology teachers tackling sustainability. Focuses on cultural & environmental issues involved in building new homes.

Practical Action www.practicalaction.org

All available in RISC Resource Centre or by mail order: liz@risc.org.uk

“If the Earth were only a few feet in diameter, floating a few feet above a field somewhere, people would come from everywhere to marvel at it. People would talk around it, marvelling at its big pools of water, its little pools and the water flowing between the pools. People would marvel at the bumps on it, the holes in it, and they would marvel at the very thin layer of gas surrounding it and the water suspended in the gas. The people would marvel at all the creatures walking around the surface of the ball, and at the creatures in the water. The people would declare it as sacred because it was the only one, and they would protect it so that it would not be hurt. The ball would be the greatest wonder known, and people would come to pray to it, to be healed, to gain knowledge, to know beauty and to wonder how it could be. People would love it, and defend it with their lives because they would somehow know that their lives, their own roundness, could be nothing without it. If the Earth were only a few feet in diameter.”

Steve Smith

“Young people want to be better equipped to place themselves in the world as it changes, they want to know what hopeful futures are available to them.”

Vandana Shiva

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Teaching About Sustainability: Curriculum Links

Art & Design

- explore the work of artists from around the world who work with reclaimed materials (eg El Anatsui, Antonio Ole, Moshekwa Langa)
 - explore the work of artists from around the world whose work promotes the concept of stewardship (eg Andy Goldsworthy, Keiko Mukaide)
 - explore pupils' ideas of probable & preferable futures through 2 or 3D work

Design & Technology

- design & make a meal using locally grown ingredients
- evaluate quality products (kites, baskets, toys, musical instruments) that are made from reclaimed materials
 - investigate & evaluate sustainable buildings to enable schools & homes to become more sustainable
 - hold a fashion show to demonstrate how clothing can be customised rather than discarded
- design systems for reusing copier paper

Drama

- collect current local & global news stories to dramatise
- use proverbs on environmental issues as scenarios for drama work
 - use forum theatre to explore how change can be brought about

English

- consider attitudes to sustainability as represented in the world's media
 - www.onlinenewspapers.com
- use issue-based poetry as a stimulus to pupils' work, eg Benjamin Zephaniah's *Little Book of Vegan Poems*
 - collect traditional stories which promote the concept of stewardship, eg *How Night Came*
- send letters to manufacturers, retailers or decision-makers for persuasive writing

Geography

- record pupils' journeys to school, measure and reduce their environmental impact
 - investigate local and global climate change, and appropriate action to minimise impact
- make the links between water demand and supply, locally & globally (Thames, Narmada, Three Gorges)
- map the countries of production of food to explore interdependence & consider food miles

History

- investigate changing sources of energy in the Industrial Revolution & their impact on the environment
 - compare history of population growth, resource consumption & waste production
- explore environmental impact of trade & migration in colonisation
- include the history of the environmental movement

ICT

- collect & present data from school meter readings
 - research & evaluate websites of environmental campaigning organisations
 - research & map local cycle and pedestrian routes, and public transport alternatives to cars
- research disposal of computers, mobile phones & batteries

Maths

- use population, resource consumption & waste production statistics for data-handling activities
 - monitor & reduce weight of paper waste for each class & for whole school
 - calculate food miles for pupils' lunchboxes

Modern Foreign Languages

- examine the media portrayal of environmental events in Francophone countries
 - www.allafrica.com
- follow the migratory journey of swallows along the Zero Meridian through Francophone countries
- write captions for images from the *Earth from the Air*
 - www.earthfromtheair.com

Music

- explore the role of fusion music in sustaining minority cultures
- compose raps on an environmental theme
- create a musical washing line from reclaimed materials

PE

- pedal power for fitness – encourage safe cycling to school
- recycle relay race – race to correctly place items for recycling in bins

PSHE/Citizenship

- involve the School Council in reducing the school's global footprint
 - use the UN Convention on the Rights of the Child to explore rights & responsibilities regarding sustainability
 - discuss pupils' thoughts on their probable & preferable futures
- challenge consumption through 'No Shopping Day' & 'Swap Shops'

RE

- examine the attitudes of world religions to the concept of stewardship
- explore attitudes to the environment through creation stories
- investigate company ethics & corporate social responsibility statements

Science

- investigate the environmental impact of each of the Rs – reuse, repair, reclaim, recycle, refill, recharge
- develop school gardens & learn about growing food, composting the school's waste & harvesting water
 - investigate the impact of biofuels
- explore biodiversity & our impact on it, locally & globally

“Optimism is a strategy for making a better future. Because unless you believe that the future can be better, it's unlikely you will step up and take responsibility for making it so.”

Noam Chomsky

“All of life is interrelated. We are all caught in an inescapable network of mutuality, tied to a single garment of destiny. Whatever affects one directly affects all indirectly.”

Martin Luther King, USA, 1965

Some ideas for teaching about sustainability across the curriculum

Thengapalli, Forests and Futures KS2

Use puppet-making, story-telling and drama to plan ways of protecting woodlands, inspired by 3 real case studies from India. The examples show how change has been achieved by action, from 18th century Bisnoi people who hugged the trees to 21st century puppet-makers changing centuries old Rajasthani traditions. Together with the villagers of Kesharpur in Orissa, who use Gandhian philosophy and Hindu beliefs to reach consensus, each makes their contribution to the conservation of the world's forests.

Available from www.risc.org.uk/with

Exploring Food Miles KS2/3 (WWF-UK Lifelines 2004)

Using product labels that tell you where your food has come from, find out how far it has travelled using an atlas or Google Earth (which allows you to measure distances accurately). Record and discuss the results, then draw up guidelines for a more sustainable food policy for the school. Reducing food miles makes the greatest difference to a school's global footprint.

Investigating Eco-Tourism KS3/4 & 16+

Use days out, school trips, gap years, as well as holidays in Britain and world-wide, to raise awareness of the impact of travel and tourism on people and the environment. Promote active global citizenship by encouraging students to find out more about places they visit, think critically about the impact they have and consider alternatives.

“We did not weave the web of life; we are merely a strand in it. Whatever we do to the web, we do to ourselves.”

Chief Seattle

Discovering Global Footprint KS1/2

Use the concept of Global Footprints to explore the impact the school has on the environment. Enable all pupils to work towards creating a more sustainable school e.g. involve them in monitoring the use of water and energy, as well as waste reduction, travel to school and food miles. Ensure the school council takes a key role, involving the whole school community in developing strategies to reduce the school's global footprint.

Sustainable Design Award

for AS & A2 Level Design & Technology students

- An award scheme for AS & A2 level students integrated into their normal work for either level, involving no additional work.
- An opportunity for students to work on genuine case studies & product analyses within a variety of northern & southern hemisphere contexts, all of which have sustainability issues at their heart
- A scheme to help students explore environmental, economic, social & moral issues in Design & Technology.

“It is evident that many wars are fought over resources which are now becoming increasingly scarce. If we conserved our resources better, fighting over them would not then occur...so, protecting the global environment is directly related to securing peace...those of us who understand the complex concept of the environment have the burden to act. We must not tire, we must not give up, we must persist.”

Wangari Maathai 2004, on being awarded the Nobel Peace Prize

Some useful websites

- www.globalfootprints.org
- www.recyclezone.org.uk
- www.oxfam.org.uk/coolplanet/water/index.htm
- www.earthfromtheair.com
- www.stepin.org
- www.coolkidsforacoolclimate.com
- www.plantcultures.org.uk/schools/schools_food_miles.html
- www.safeclimate.net/calculator
- www.ecologyfund.com/registry/ecology.res_bestfoot.html
- www.epa.vic.gov.au/eco-footprint/schools/default.asp
- www.greenfutures.org.uk
- www.wwflearning.org.uk