

Education for Sustainable Development

March 1st 2005 saw the launch of UNESCO's decade of Education for sustainable development (portal.unesco.org/education):

The **objectives of the UN Decade of Education for Sustainable Development** are to:

1. give an enhanced profile to the central role of education and learning in the common pursuit of sustainable development;
2. facilitate links and networking, exchange and interaction among stakeholders in Education for Sustainable Development;
3. provide a space and opportunity for refining and promoting the vision of, and transition to sustainable development – through all forms of learning and public awareness;
4. foster increased quality of teaching and learning in education for sustainable development;
5. develop strategies at every level to strengthen capacity in Education for Sustainable Development.

Key Themes of the UN Decade of Education for Sustainable Development

Environmental Protection

Preservation and protection of the environment
Water
Climate change
Biodiversity
Preventing disasters
Sustainable production and consumption

Economic development

Overcome poverty
Rural development
Sustainable tourism
Information and communication technologies
Corporate responsibility
Market economics

Social and cultural development

Quality Education
Human rights
Peace and human security
Governance
Intercultural dialogue
Cultural diversity
Promotion of health
HIV/AIDS
Gender equality
Sustainable urbanisation
Indigenous knowledge

The QCA (2004 www.nc.uk.net/esd) state

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.

This website also includes examples where sustainable development can be incorporated into the mathematics curriculum at Key Stage 3: oil spills and population growth; and illustrates how the programme of study for Key Stage 4 data handling might be used to address ESD issues (e.g. RPI, census data, quality of life indicators...).

Teachers can be most effective in delivering ESD in mathematics when they:

- have developed a critical and holistic understanding of ESD

- can apply this understanding to planning, using and evaluating classroom materials (which meet curriculum requirements) in ESD
 - are prepared to rethink ways of teaching mathematics that take account of complex social and political issues
 - adopt teaching approaches that encourage critical and creative thinking
- and are equipped to:
- tackle difficult, controversial issues where there is no right answer
 - deal with the anxiety that might arise in learners from the studying of these issues.
- (adapted from www.geography.org.uk/projects/qtip/thinkpieces/esd/)

Other useful websites include:

www.earthcharter.org The Earth Charter is a set of internationally agreed cross-cultural, cross-religious, cross-political values to guide our relations with the rest of human and non-human nature. (Huckle, J. (2004) TTA Think Piece)

www.eco-schools.org.uk What sustainable approaches can schools adopt?

www.wwflearning.co.uk What is learning for sustainability?

www.amnesty.org Resources for teaching about human rights

www.foe.co.uk Strategies for conserving and protecting the environment and resources for environmental education.

www.oxfam.org.uk/coolplanet The distinction between global citizenship and education for sustainable development is blurred. Oxfam produce many potentially useful resources (not explicitly for secondary mathematics).

Please see the Global Citizenship document for more links