



## Learning about sustainable development in the school grounds

**“Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs.”**

Brundtland Commission, 1987

Learning about sustainable development is now part of the curriculum across the UK. Sustainable development education is about ensuring pupils not only acquire knowledge and understanding of the principles of sustainable development, but also acquire the skills and values needed to do something about it. The best learning about sustainable development takes place when links are made between subjects and with pupils' own lives and experiences; when learning takes place actively and participatively; when pupils are encouraged to reflect on their learning.

The school grounds can support sustainable development education in many ways. Changes made to the grounds can provide a memorable

experience of sustainable planning and development processes in action, through involving the whole school community, carefully identifying needs and using renewable resources. The Groundnotes *Sustainable School Grounds* (available from [www.ltl.org.uk](http://www.ltl.org.uk)) looks in detail at how such changes can contribute to making schools more sustainable.

This Groundnotes focuses on learning experiences that can take place within the school grounds to help pupils understand the key principles of sustainable development:

- **Stewardship** – recognising individual responsibility;
- **Interdependence** – the links between people and the environment;
- **Sustainable change** – living within the world's carrying capacity;
- **Diversity** – both human diversity (cultural, social and economic) and biodiversity;
- **Rights and needs of others** – both current and future generations;
- **Quality of life** – basic needs must be met universally, and equity and justice are essential elements of sustainability;

- **Uncertainty and precaution** – our actions may have unforeseen consequences, requiring a cautious approach to our use of the world's resources.

Learning activities are suggested for each of these concepts. These could take place as part of specific curriculum subjects or as part of a cross-curriculum day. You might want to use individual ideas in isolation or combine them as part of a sustainable development week.

### “Someone should do something about it!”

How often do we hear – or say – that? Learning about **stewardship** means learning that ‘someone’ is each of us. The lesson is most likely to be effective when it takes place in the context of solving a real problem affecting children's lives. Next time you hear a grumble, use it as an opportunity for some active stewardship.

For many schools, litter in the school grounds is a real nuisance, but it's a great example of a problem that can be solved by pupils through their own efforts. A school litter-pick makes an instant improvement, but it might not tackle the underlying causes. The environmental quality organisation, ENCAMS (best known for its Keep Britain Tidy campaign) recommends a four-step approach:

- 1 Assess the litter problem – survey where litter collects and what type of litter is found. Repeat the survey at different times and on different days.
- 2 Analyse the problem – does the type of litter suggest where it is coming from? Does litter occur at particular times or in particular places? Does the weather have an effect?
- 3 Devise a litter strategy – identify the sources of litter and develop an action plan to tackle the causes.
- 4 Monitor and evaluate the outcomes – both through repeated litter surveys and through attitudinal surveys.

*Further reading: The ENCAMS website ([www.encams.org](http://www.encams.org)) includes detailed advice on surveying litter, and the research report, “I'm Just A Teenage Dirtbag, Baby!”, is essential reading for any secondary school looking to tackle their litter problem.*



## No man is an island

As children grow older they need to learn that their actions affect other people and the environment, just as other people and environmental change will affect them – that we are **interdependent**. Children start learning this at the most personal, small-scale level such as when their play upsets others. When conflicts happen in the playground, circle time or other discussion opportunities can help them to start understanding their responsibilities towards others. As they get older, they can start learning about more distant and complex interdependencies.

Interdependence is also about how human society is dependent on the natural environment. Plants are a good entry point for exploring both biodiversity and multiculturalism. Children can research 'useful' plants – food crops and raw materials as well as ornamental varieties – and map where they originate.

Links with history can be made researching when plants were introduced to this country, or how trade routes developed. You might have examples of such plants already growing in your grounds, if not, a visit to a nearby botanic garden or park could provide some inspiration. You might want to identify species which would be suitable for growing in the grounds to create your own global garden.

## Living within our limits

**Sustainable change** requires us to recognise that there are limits to the

world's resources, and we have to learn to live within those limits. Sustainable change is often summed up with the 3 Rs:

- **Reduce** our consumption levels to reduce our use of resources;
- **Reuse** resources wherever possible, repairing rather than replacing, and finding new uses for things we no longer need;
- **Recycle** is the third choice, as recycling itself uses resources (energy, water, etc).

Set pupils the challenge of identifying changes which can be made in the grounds to reduce the use of resources, for example composting or installing water butts. Where changes are planned, start by identifying what existing features can be reused, either in their current form – repainting benches – or in a different form – reusing the wood from a derelict shed to build a compost bin.

If your school doesn't already have an eco-committee, this is a good way to involve children in planning how to reduce the school's environmental impact.

*Further information: the Eco-Schools programme provides a simple framework to enable your school to analyse its operations and become more sustainable.*  
[www.eco-schools.org.uk](http://www.eco-schools.org.uk)

## Variety is the spice of life

When we think about **diversity** in the context of sustainable development, we tend to first think of biodiversity – the infinite variety in the natural world.

Preserving biodiversity is a vital element of sustainability, not only for its own intrinsic value, but also because of our dependence on the natural world for food, medicines and other resources. Even tiny differences, for example between different strains of potato plant, can make the difference between feast and famine when crops are attacked by disease.

Diversity also refers to celebrating the differences between people. Celebrate the diversity of your school population through an artwork that welcomes visitors to your site and demonstrates how you value your community.

- Pupils at Matthew Arnold School created outdoor ceramic murals featuring whole classes. Each child made a clay tile decorated with their portrait and the tiles were fixed together on the wall.
- Visitors to Mount Nod Primary School in Coventry are welcomed by a mural featuring all the different nationalities attending the school, each character saying "welcome" in their own language.



- Chipping Norton School created a flag stone path, with each child painting their national flag on a paving stone.

You can also celebrate cultural diversity through dance and music. Ask parents to lend you recordings of music that their family enjoys or if they have any instruments children could listen to or try. By teaching songs and dances from different nations of the world children will begin to see that all people like to sing and dance and that every group has its own special way.

*Further reading: Schoolgrounds-UK members can download a Groundnotes on Biodiversity from the Member Services area of the website.*





## Looking beyond me

A fundamental element of maturing is learning to respect the **rights and needs of others**. Where sustainable development education takes this further is focusing on future as well as current generations. Children are often more receptive to this message than adults, recognising that they are the first of these future generations.

Your grounds can help children to understand other people's rights and needs. Many school playgrounds see space being dominated by sub-sections of pupils – for example boys playing football might push other activities to the fringes. Circle time can be a useful opportunity to discuss any issues like this that affect your grounds.

An activity to start pupils' thinking about equity is to divide the playground into two equal areas. Let a small group of children have one half to play in while crowding the rest into the other half.

Or allocate different areas to groups of children, an area of plain tarmac to one group, a more exciting area to another group. When pupils complain "*it's not fair!*" you can develop the discussion to bring in issues of inequality of income, food, education or opportunity, depending on the ability of your children.

You can help children understand inequality of wealth distribution through using your playground. Divide a hard court area into twenty spaces. This

represents the world's wealth. Now label the spaces as follows:

**Africa** – 1 space

**Asia** – 6 spaces

**Latin America** – 1 space

**Europe** – 6 spaces

**North America** – 6 spaces – put North America and Africa next to each other for reasons which will become clear.

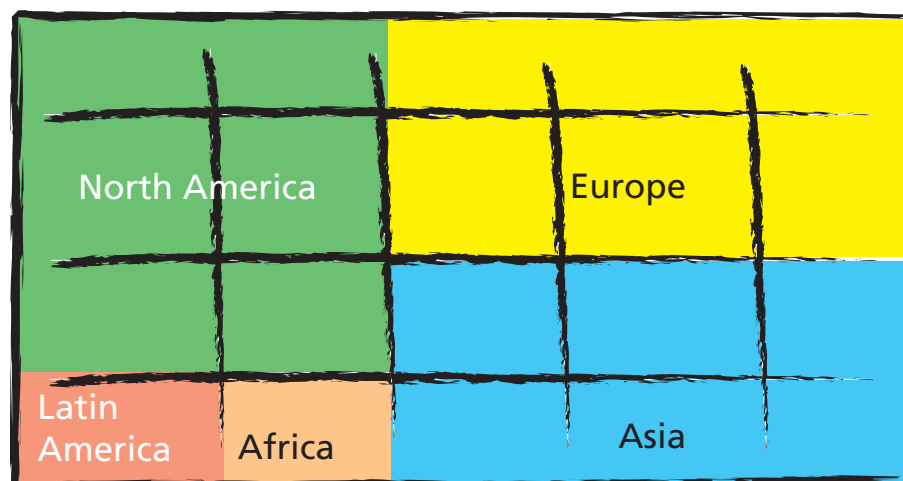
You could draw the boundaries with chalk or use play equipment to mark them. Your playground might now look like the diagram below.

Start a discussion with pupils about whether this is 'fair'. In fact, Africa should only have  $\frac{1}{5}$  of a square, so redraw the boundary again giving about  $\frac{4}{5}$  of the Africa square to North America.

Children may recognise that it depends on how many people have to share each section of the wealth, if not prompt them. You can now divide the class up to represent the world's population and allocate them to different parts of the world. The numbers shown here are for a class of 30, so you may need to adjust them slightly.

Ask 18 people to stand in Asia, and 5 people in Europe. Make sure children understand what this shows about the wealth per person in these two areas.

Then send 2 people to Latin America and 2 people to North America and discuss what this shows. Finally, ask 3 people to crowd into the fraction of a square left over for Africa.





## The pursuit of happiness

Sustainable development requires a shift away from increasing the wealth of the few, towards improving the **quality of life** for all. An interesting approach is that taken by the government of Bhutan who, rather than targeting improvements to national economic indicators such as Gross National Product, are instead seeking to increase their nation's Gross National Happiness. Bhutan being a Buddhist country, this is rooted in the Buddhist notion that the ultimate purpose of life is inner happiness. The measure incorporates health; education; ecosystem diversity and resilience; cultural vitality and diversity; time use and balance; good governance; community vitality and psychological well-being.

Your school grounds can play an important role in improving the quality of life not just for pupils, but also for staff and other users of the site. Well designed and

maintained school grounds send a message to site users that they too are valued and their needs considered important. Involving children in evaluating their grounds, identifying their needs, and planning for improvements can help create an environment which supports a feeling of well-being. Research has also shown specific elements of school grounds which are viewed particularly positively by children. These include trees, grass, flowers and ponds – but only if well-maintained. Tarmac and concrete, on the other hand, are associated with aggressive games and pain. Moreover, children often believe that better alternatives to tarmac or concrete exist, but that the school is not prepared to pay for them.

If you are planning school grounds improvements, make the pursuit of happiness an explicit element of your thinking, by helping children to identify what elements of outdoor environments make them happy.



## When “don’t know” is the right answer

In education, we often focus on knowing the answers, but we simply don't know all the answers when it comes to the well-being of our planet. Sustainable development takes place in a context of **uncertainty and precaution**, which means that we need to play it safe to avoid jeopardising the welfare of future generations.

When children raise issues to which the answers are not yet known, help them to think through the possible consequences of our actions, and weigh up the risks. For example, look at a common issue such as whether to use pesticides when growing food. What might happen if you do, and what might happen if you don't? Trace out the chain of consequences.

*Further information: See the Future Problem Solving section in the Teaching & Learning Strategies part of UNESCO's Sustainable future website*  
[www.unesco.org/education/tlsf/index.htm](http://www.unesco.org/education/tlsf/index.htm)

© This resource was originally created as part of the Schoolgrounds-UK membership scheme from the national school grounds charity **Learning through Landscapes** operating in Scotland as **Grounds for Learning**

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