

Litter & Waste

Biodiversity

Climate Action

Energy and Water

Food and the Environment

Health and Wellbeing

Global Citizenship

Transport: Active Travel

Transport: Decarbonisation

School grounds

Litter and Waste

This topic is mandatory and covers actions on litter, fly-tipping, graffiti, and waste minimisation actions such as recycling and composting.



Dundee City Council Contact

Sally McConville - Environment Assistant sally.mcconville@dundeecity.gov.uk

Hamish Donaldson - Project Officer (Waste) hamish.donaldson@dundeecity.gov.uk

Local Resources Available

- Scrapantics can provide support to identify ways to embed creativity and environmental art into the curriculum.
- The Scrapstore is located in Meadow Mill, it's open to the public, and they have a huge array of materials and resources, and space to run workshops.
- Baldovie and Riverside HWRC

Online Resources

- Keep Scotland Beautiful: Clean Up Scotland, Handy Litter Resources, Upstream Battle on the Tay and It's Your Neighbourhood
- Zero Waste Scotland's website and social media have great resources: Zero Waste Scotland, Communications Resources
- Bin It Education Resources
- Marine Conservation Society: Fun and Learning Resources & Campaigns

Context for Learning

arts and crafts science

textile design environmental studies

technical studies biodiversity

fashion interdependence

creativity language teamwork citizenship

planet earth

What the waste team can do to support your Eco-Schools Journey

- Help to raise the profile of Waste Education within the school environment.
- Help to bring about a positive change in behaviour towards waste minimisation and management in schools, cascading down and into the home.
- Find ways to develop and enhance the services we offer to schools.
- We can attend/assist at school assemblies, class talks/events, arrange visits to recycling centres and attend Eco Group Meetings.
- There are different Recycling rates and types throughout the city, we can support you to monitor what your school recycles/wastes and how to work this out.

Local Facts Related to Topic

- Litter is waste in the wrong place and there are many different causes.
- Littering is illegal and you can be fined £80 for throwing down or dropping an item in any open public space.
- Not cleaning up after a dog you are responsible for when it fouls in a public open space is illegal and you can be fined £80 if you do not pick up. In total litter and fly-tipping costs Scotland over £78 million each year.
- £53 million of public money is spent each year on the direct costs of litter and fly-tipping (e.g. clean up, enforcement, education), that's over £1 million a week!
- 80% of marine litter comes from land-based sources, by stopping litter on land we can help prevent it entering water courses and ending up in our seas and oceans.
- Scrapanticshave diverted 45 tonnes of waste away from landfill and used this to inspire creative projects across Dundee - help us to make it even more!

Litter and Waste continued...



Tips and Ideas

There are lots of initiatives for you to get involved with on at a national and local level. Including:

- Creating a Litter Prevention Action Plan for your school.
- Gathering data on litter through litter surveys.
- Learn about single use plastic and what alternatives there are.
- Dundee's Take Pride In Your City campaign.
- Clean Up Scotland all year round and their annual spring clean in April and May, and the #2MinuteCleanUp.
- Join Beautiful Scotland and/or the It's Your Neighbourhood scheme.
- As an Eco Group, can you help your school collect recycling or encourage more recycling?

Case Studies

Grove Academy pupils have been improving their local environment, working closely with local groups, such as Broughty Ferry in Bloom and their local primary school.:

- The pupils carry out litter picks, an annual beach clean and litter survey for the Marine Conservation Society's Great British Beach Clean. They supported campaigns: Keep Scotland Beautiful's 'Give Your Litter a Lift' and 'My Beach, Your Beach' campaign through litter picking and litter surveys.
- The pupils also help brighten up their local environment and improve biodiversity by planting in two areas of Broughty Ferry: Shiell Street and Queen Street car park. Both projects are registered with the It's Your Neighbourhood scheme.

Share what you are doing, it's a great way to highlight all your good work and inspire others!

What the Neighbourhood Services Team can do to support your Eco-Schools Journey

- Put you in touch with local community groups to work on tackling litter.
- Provide advice for your litter pick (e.g. locations, how to arrange, campaigns you can get involved with).
- Lend equipment for litter picks/clean ups.
- Provide information on the Council's Take Pride in Your City campaign, and how your Eco-school can get involved.
- Help share and promote the good work you are doing through the Council's Take Pride in Your City campaign.
- Help support you to create a Litter Prevention Action Plan (LPAP) for your school.
- Provide advice on Keep Scotland Beautiful initiatives such as Clean Up Scotland, Beautiful Scotland, It's Your Neighbourhood, and Upstream Battle on the Tay.
- Find ways to develop and enhance the services we offer to schools.
- We can attend/assist at School Assemblies, Class Talks/Events, Visits to Recycling Centre, Attend Eco Group Meetings.

Curricular Links

Experiences and Outcomes
SCIENCE: Properties and uses of substances
SCN 0-15a, SCN 1-15a

NUMERACY AND MATHEMATICS (Information handling): MNU 0-20b, MNU 1-20b, MNU 2-20b

Keep Scotland Beautiful Eco-Schools Topic Information:

Eco-Schools At Home Activities Litter & Waste

Curricular Map:

Eco-Schools Curricular Maps - Litter & Waste

Biodiversity

Maintaining a high level of plant, insect and animal life locally and globally.



Dundee City Council Contact

Colin Donald - Countryside Ranger colin.donald@dundeecity.gov.uk

Local Resources Available

There are a large number of parks and greenspaces rich in biodiversity with free public access in and around Dundee!

Online Resources

- NatureScot have lots of free activities
- The RSPB have lots of resources to connect children with nature

Tips and Ideas

- Managing school grounds for biodiversity can be as simple as asking for an area of grass to be left unmown, to building and planting planters, bug hotels and compost bins.
- If you have a woodland area then bird or bat boxes can be made and put up.
- Keep a record of before and after your project by taking photographs or carrying out a bird or mini-beast survey before and after. This will allow your students to measure and see what difference(s) your project has made.
- Visit a local park, or simply go outside and explore your school grounds by foot; take a survey of the varying types of flora and fauna.

Curricular Links

Experiences and Outcomes

SCIENCE - Biodiversity and Interdependence SCN 0-01a, SCN 1-01a, SCN 2-01a, SCN 1-02a, SCN 2-02a, SCN 2-02b

What we can do to support your Eco-Schools Journey

- Provide advice on biodiversity within school grounds and the wider city.
- Signpost schools to related biodiversity organisations.
- We can arrange visits from local rangers to teach schools about biodiversity.
- There is the potential to arrange trips for small groups to see examples of biodiversity within Dundee. Or we can provide teacher training sessions.

Local Facts Related to Topic

- Dundee is one of the very few cities in the UK to have its own population of Red Squirrels. If schools have an area of woodland or are close to wooded areas Squirrels can be encouraged to visit.
- Many other threatened species such as hedgehogs, sparrows, starlings and bats can be found in Dundee and would benefit from action taken in school grounds to support their populations.
- School grounds can help varieties of pollinators by planting nectar rich plants.

Case Studies

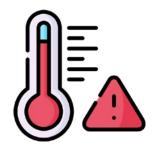
Menziehill Nursery, Grove Academy, St. Andrew's Primary, Barnhill Nursery, Mill O' Mains Nursery and St. Mary's Primary have installed successful bug hotels, bird feeders and more.

Keep Scotland Beautiful Eco-Schools Topic Information:

Eco-Schools: Biodiversity

Climate Action

New Topic! Climate Action look at all aspects of Climate Breakdown: why and how it affects our daily lives, what the causes are, and how to take action to prevent and reduce the effects of carbon on our environment.



Dundee City Council Contact

Naomi Clarke - Senior Sustainability & Climate Change Officer (S&CC)

naomi.clarke@dundeecity.gov.uk

Katie Morrison - S&CC Assistant katie.morrison@dundeecity.gov.uk

Local Resources Available

- The <u>Dundee Climate Action Plan</u> was created in response to the declaration of the Climate Emergency, the plan has 64 actions all of which are linked to the United Nations Sustainable Development Goals.
- We have created a number of Sway's sharing some of DDC's efforts to address and mitigate climate change and share stories from our community. Check them out here!
- Bright Green Hydrogen can facilitate renewable energy learning in the classroom through their workshops.
- The West End Community Fridge is a great example of a local project connecting communities and saving carbon emissions.

Tips and Ideas

- There are lots of resources online to help your class understand climate change, its impacts and how we can contribute to its solution.
- Learning about carbon footprints is a great way to begin to understand our impact and how to reduce it.

Keep Scotland Beautiful Eco-Schools Topic Information:

Eco-Schools: Climate Action

What we can do to support your Eco-Schools Journey

- Climate Action encompasses a range of topics including biodiversity, energy sources, sustainability, travel and wellbeing, we can provide support on a range of topics and connect you with others to arrange talks and workshops!
- We can share knowledge and information on the Dundee Climate Action Plan and current work underway by Dundee City Council to mitigate and adapt to climate change.

Local Facts Related to Topic

Lots of work is going on in Dundee to tackle the climate emergency. Did you know?

- Almost 5,000 homes in Dundee have been thermally upgraded, creating warmer homes, reducing fuel bills, and tackling fuel poverty.
- All streetlights have been replaced with LED's which are 90% more efficient than regular lights.
- The V&A Dundee runs solely on geothermal energy, which means heat from within the earth!
- Electric vehicles (EVs) currently represent over 35% of the council's small van and car fleet.
- The switch to EVs has seen the council travel over 5.6 million miles on pure electric.

Curricular Links

Experiences and Outcomes

Social studies (People, Place and Environment) SOC 0-08a, SOC 1-08a, SOC 2-08a

Health and Wellbeing (Social Wellbeing) HWB 0-13a, HWB 1-13a, HWB 2-13a, HWB 1-18a

Sciences (Energy sources and sustainability) SCN 2-04b, SCN 3-04b, SCN 4-04b

Energy and Water

These two topics include reducing energy and water use, investigating greener energy sources and look at how clean water is becoming an increasingly rare and valuable commodity.



Dundee City Council Contact

Andy Marnie - Energy Officer andy.marnie@dundeecity.gov.uk Telephone: 01382 434244

Local Resources Available

- Energy saving survey checklists
- Classroom checklist
- Myths and FAQ's
- Carbon comparisons
- Stickers and posters
- Bright Green Hydrogen can provide educational workshops. Contact: karen@ thebusinesspartnership.org.uk

Tips and Ideas

- Carry out an energy survey of your school e.g. at different times of the day.
- Design your own energy saving posters and stickers.
- Have a switch off day and see how much energy you can save.
- Scottish Water have <u>online modules</u> and resources relating to the curriculum for specific year groups.

Curricular Links

Experiences and Outcomes

SCIENCE - Energy Sources and Sustainability SCN 0-04a, SCN 1-04a, SCN 2-04a, SCN 2-04b

Context for Learning

STEM Engineering - District heating Systems

What we can do to support your Eco-Schools Journey

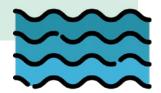
- Talks about energy and energy saving measures
- Provide reports on energy and water consumption for the school e.g. comparing year on year, or the effect of an energy saving (switch off) day.
- Provide advice and resources to support energy and water saving campaigns or strategies.
- STEM links Engineering District Heating System/Strategy presentation/talks.

Local Facts Related to Topic

- Dundee's Education Department took on a target to reduce its energy costs by 10% in 2015/16 through an energy saving campaign.
 This was supported by the Energy Management section of the Council.
- The target was achieved and has been maintained since then. However, there are still opportunities for further savings in schools.
- Case studies are available from Downfield Primary and Dens Road Primary.
- A Head Teachers energy saving workshop came up with over 100 ideas for actions, which have been compiled into a report.

Keep Scotland Beautiful Eco-Schools Topic Information:

Eco-Schools: Water
Eco-Schools: Energy



Food and the Environment

Most of us can name foods that are part of a healthy diet, but this topic challenges you to think about whether foods are also good for environmental health locally and globally.



Dundee City Council Contact

Kate Treharne - Community Allotments Officer kate.treharne@dundeecity.gov.uk

Local Resources Available

Dundee Resources

There are many community gardens that can be joined for ideas and understanding. Find a map of locations here.

Online Resources

- One Seed Forward links food growing to the CfE with modules, topics, awards and more!
- Royal Caledonian Horticultural Society has lots of activity ideas
- The RHS has lots of information including design tips, lesson plans and crop sheets for every vegetable you might wish to grow.
- Learn about sustainable food systems at Nourish Scotland

Tips and Ideas

- Learn about growing food organically, here!
- Check out Suttons Complete Beginners Guide to Growing your own Vegetables
- Enter homegrown produce into local food growing competitions; make this pupil-led so that children can suggest their favourite vegetables and research how to make the garden a success.

Curricular Links

Experiences and Outcomes

SCIENCE - Biodiversity and Interdependence SCN 0-03a, SCN 1-03a, SCN 2-03a

SCIENCE -Biological Systems Inheritance SCN 1-14a, SCN 2-14a, SCN 2-14b

What we can do to support your Eco-Schools Journey

- Provide advice on garden space building and planting.
- Information on resources available to help with planting, sowing and more.

Local Facts Related to Topic

- Berries are the key local fresh product; James Hutton does breeding of new cultivars (links to genetics, evolution, nutrition, life cycles, pollinators, climate change, medical drugs from plant sources and more!).
- Craigowl Primary received Tesco Bags of Help money (£12k) for a school garden.
- St Mary's Primary have taken over the Whorterbank Tattie Patch; a good example of a raised bed, accessible structure. PEF invested in this case.
- The MAXwell Centre works with local Primary Schools to facilitate growing projects. This is an established project with a strong set of staff and a number of highly successful projects e.g. Summer Garden Club.

Case Studies

- Balgarthno Campus have community growing space and an orchard.
- King's Park School have raised beds and are planning to install more.
- St Peter and Paul's Primary School has raised beds in their tarmac playground, supported by the MAXwell Centre.

Keep Scotland Beautiful Eco-Schools Topic Information:

Eco-Schools: Food and the Environment

Health and Wellbeing

Health and Wellbeing covers all aspects of health - physical and mental health as well as social wellbeing.



Dundee City Council Contact

Audrey White - Senior Health & Wellbeing Officer audrey.white@dundeecity.gov.uk

Sarah Anderson - Education Support Officer (Health and Wellbeing)
sarah.anderson@dundeecity.gov.uk

Local Resources Available

We can support with embedding a range of interventions, including:

- Loose Parts Play
- Active Play and Play Champions
- Play based approach at early level
- Ancrum Outdoor Learning
- John Muir Award
- Outdoor Learning and Numeracy
- Outdoor Learning and Literacy through Lost Words
- And lots, lots more.

Local Facts Related to Topic

Approximately 21 Primary Schools and Kingspark School are now a part of the Outdoor Learning and Play Collegiate Group.

Curricular Links

Experiences and Outcomes

Social Wellbeing (all Es&Os HWB-09,10,11,12,13,14), HWB-18a, HWB-19a

What we can do to support your Eco-Schools Journey

Join our Outdoor Learning and Play Collegiate Group which aims to support the Collegiate Group schools to embed a whole school approach to outdoor learning and play, as part of the priorities within their school Improvement Plan. This will be completed through the following priorities:

- Flexible outdoor learning and playful environments for the school and community.
- Increased teacher/support staff awareness and understanding of outdoor learning and play.
- Increased teacher/support staff confidence and skills to take learning outdoors.
- Removing the barrier to outdoor learning and play - Health & Safety, solutions to going outside in Scottish weather.

Tips and Ideas

- Consider Eco-Schools as part of a whole school approach to develop pupil leadership, participation and provide opportunity for pupil voice to be used in a meaningful way.
- Allocate an outdoor learning and play champion within your school.
- Seek and take advantage of the available support through our Collegiate Group.

Keep Scotland Beautiful Eco-Schools Topic Information:

Eco-Schools Health and Wellbeing

Global Citizenship

Taking an active role in your community and making our planet more peaceful, sustainable and fair.



Dundee City Council Contact

Sally Romilly Global Learning Adviser - One World Centre (Development Education Centre & Resource Library)

sally@oneworldcentre.org.uk www.oneworldcentre.org.uk

Local Resources Available

- One World Centre library, including photopacks, games, CDs, posters, story books & novels on Global Citizenship themes. To see what's available, including online materials, visit: Signposts Global Citizenship
- Check out the Schools pages of STRIDE, a free national quarterly online magazine for teachers.

Tips and Ideas

- Try some starter activities on the World's
 Largest Lesson to get children's ideas on which
 goal they think is most important and relevant
 for their school to work on.
- Fair Trade for classroom resources, check out the Scottish Fair Trade Forum or the Fairtrade Foundation. Both these organisations can help to explore the concept of climate justice from a human rights perspective.

Curricular Links

Experiences and Outcomes

Links to Social Studies Curriculum SOC 0-08a, SOC 1-08a, SOC 2-08a, SOC 2-08b, SOC 2-07b

Also links to HWB and RME curriculum

Context for Learning

Children's Rights Literacy Numeracy H&WB

Four Capacities

ΑII

What we can do to support your Eco-Schools Journey

- Provide Professional Learning opportunities for teachers, free of charge, on all aspects of Global Citizenship within Learning for Sustainability.
- We have a wide selection of resources across all levels available to borrow.
- We can provide advice on suitable activities and resources matched to the individual needs of your school.

Local Facts Related to Topic

- One World Centre have a downloadable pack on their website called '<u>Dhaka to Dundee</u>' which explores this in detail, with over 30 lesson plans, updated to include the SDGs.
- Did you know the One World Centre set up Dundee's Fair Trade Forum You can become a local <u>Fair Trade Finder</u> and help spread the word about all the places in Dundee where you can find Fair Trade goods.
- The <u>Dundee Global Trail</u> has been compiled which links Dundee to different parts of the world e.g. Verdant Works links Dundee's industrial past with current issues of global social justice in India & Bangladesh today.

Keep Scotland Beautiful Eco-Schools Topic Information:

Eco-Schools: Global Citizenship
Eco-Schools Curricular Maps - Global Citizenship

Transport: Active Travel

The majority of Scotland's emissions come from private car journeys. The easiest way to reduce emissions is by participating in Active Travel - the healthiest way to travel.



Dundee City Council Contact

Active Travel

Euan McKay - Active Travel Officer euan.mckay@dundeecity.gov.uk

Local Resources Available

- Waterfront Active Travel and <u>Dundee Cycle Hub</u> is now open! They can provide info on walking groups, cycling routes, bike repair and rental.
- Dundee has a great circular economy. If you are looking for a second hand (kids) bike pay a visit to Tayside ReUsers or visit Dundee's Cycle Hub.

Local Facts Related to Topic

- The <u>Green Circular</u> is a 25-mile leisure cycle and walking route around the city.
- The Dundee Cycle Map, shows ways of getting across the city using quieter roads, cycle lanes and off-road routes! More cycling and mountain biking routes can be found here.
- Every year the Rotary Club of Claverhouse hosts the <u>Dundee Cyclathon</u>, a cycling fundraiser open for everyone to participate.
- There are a variety of <u>Cycling Clubs</u> available across the cities for all ages and abilities.

Keep Scotland Beautiful Eco-Schools Topic Information:

Eco-Schools: Transport

What we can do to support your Eco-Schools Journey

- Presentations and Bikeability sessions from the Active Travel Team at Ancrum Outdoor Centre.
 Ancrum Outdoor Centre also offer a host of activities to schools. Activities can be arranged.
- A talk/presentation on the new city-wide eBikes or the new pedestrian zones within the city.
- Contact active travel officers for advice and presentations here.
- Provide a link with the Dundee Cycle Hub at the Waterfront.
- Provide posters, information, support and talks on the Get on the Go campaign, WOW (walk one a week) Travel Tracker with the Strider mascot.
- Sustrans do a lot of work around Dundee and more information about this can be found here
- We can facilitate and organise a creative ideas session for mobility solutions in Dundee

Tips and Ideas

- Become accredited by Cycling Scotland as a Cycling Friendly Primary or Secondary School.
 Cycling to school brings many positive benefits: keeping children fit and healthy, building their confidence and giving them skills for life.
- Create information posters/leaflets on walking and cycling to get children thinking about alternative, more sustainable transport to school.
- Reinforce the benefits of cycling, walking and scooting to school such as increasing road safety awareness, saving money, arriving to school alert, boosting mental health & wellbeing and reducing pollution.
- We can arrange for banners asking parents/ carers etc not to park near the school. These can be attached to the school gates/fence.
- Encourage exploring Dundee by foot. Dundee has many interesting walking maps available for the whole family.

Transport: Decarbonisation

The future of Dundee travel is electric. Moving to sustainable transport choices, reducing the reliance on individual traffic and participating in public transport is key to a sustainable future.



Dundee City Council Contact

Low Carbon Team - Drive Dundee ElectricSophie McCaffrey – Low Carbon Project Assistant sophie.mccaffrey@dundeecity.gov.uk

Local Resources Available

- eBikes allow you to travel more easily and further. Even Dundee's hills are climbed without much effort! Find out more about the cities eBike hire scheme: RideOn Embark Dundee.
- Princes St. EV Charging Hub opportunity for site visits and demonstrations of plugging in a car. Plus potential for small scale surveys and data collection; car counting, time spent/energy consumed at each charger and more.
- Xplore Dundee's electric fleet, potential for a visit or a bring a bus to school.
- Visit one of Dundee's 100+ electric taxis.
- Urban Foresight can provide workshops and presentations on sustainable transport. They can talk about projects which made Dundee unique, where you can see them around the city, how using low carbon transport helps the environment and lots more!
- Dundee City Council may be able to support pupils with <u>free bus passes</u> depending on circumstance.

Tips and Ideas

- Create information posters/leaflets on scooting, eBikes, buses, EVs, car sharing, park & stride to get children thinking about alternative, more sustainable transport to school.
- Brainstorming sessions for kids to explore the benefits of active travel, EVs and clean energy sources.
- School competitions to name our new electric vehicles (bin lorries and sweepers already named for reference).

What we can do to support your Eco-Schools Journey

- A talk/presentation on electric vehicles (EVs), covering where our electricity comes from and the shift from fossil fuel to cleaner & cheaper electric transport.
- Talks on air quality and the health impacts of pollution.
- Bring an EV to the school grounds to compare, explore, and learn more about.
- Provide information on the Drive Dundee Electric campaign with supporting marketing materials and merchandise.
- Provide EV activity sheets i.e. colouring posters for events/classrooms
- Provide video and drone footage of local EV infrastructure for presentations/talks

Local Facts Related to Topic

- Since switching to EVs the council traveled over 5.6 million miles on pure electric, saving an estimated 250,000 tons of CO₂ in the process.
- Dundee has the highest concentration of EVs of any city in the UK, with the Council fleet of over 100 EVs being the largest of any local authority.
- Dundee's public EV charging infrastructure includes 39 rapid chargers and 82 fast charging posts so the city can charge approx 180 vehicles per square mile while the UK as a whole can charge just 6.6 vehicles per square mile.
- By 2027 the Council wants to convert 20% of all vehicles to electric, making the city sit at the forefront of EV technology in the UK and Europe.

Curricular Links

Experiences and Outcomes

SCIENCE - Electricity SCN 0-09a, SCN 1-09a, SCN 2-09a, SCN 2-10a

Technology TCH 0-05a, TCH 1-05a, TCH 2-05a

School grounds

The way school grounds are developed, used and managed can have a significant impact on pupils' attitudes and behaviour towards school, each other, the wider environment and society.



Dundee City Council Contact

Sustainable Dundee

sustainability@dundeecity.gov.uk

Online Resources Available

- Learning through Landscapes is a great resource, it highlights how imaginatively developed school grounds can contribute to curriculum teaching and learning.
- Find out about building resilience through play with Playful Schools
- There are lots of creative solutions to create a more sustainable school.

What we can do to support your Eco-Schools Journey

 Provide advice on biodiversity, food growing, sustainable design, energy solutions, recycling, and active travel.

Case studies

Get inspired by Eco-School's school grounds transformations and case studies, here.

Curricular Links

Experiences and Outcomes

Four capacities (successful learners, confident individuals, responsible citizens, effective contributors)

Tips and Ideas

School grounds can provide opportunities to:

- Devise and build technological solutions for developing alternative energy systems
- Experiment and build with recycled materials
- Use organic products and practise organic gardening
- By providing good facilities such as secure cycle sheds and well-designed access routes, school grounds can also promote sustainable transport - cycling and walking - and should be a consideration within School Travel Plans
- Design for minimum environmental impact.
- Re-use materials on site and source recycled materials.
- Design and build for the conservation of water resources, consider ponds.
- Use locally-sourced materials & local contractors.
- Maximise the positive capacity of the natural environment, including light, shade, ventilation and micro-climate.
- Make optimal use of green technologies, such as renewable energy and reed bed filtration.
- Appeal to children's intellect and sense of fun with features designed to stimulate their senses and encourage physical and mental exploration.

Keep Scotland Beautiful Eco-Schools Topic Information:

Eco-Schools: School Grounds