

Education for Sustainability



Everything is connected

 **Environment
Canterbury**
Regional Council

Education for Sustainability

What we are all about

Education for Sustainability (EfS) provides action-based, interactive programmes facilitated by trained educators. Our resources aim to support you in developing new knowledge and ways of thinking among your students to help achieve sustainable ways of living.

Future-focused issues are a rich source of learning opportunities. They encourage students to make connections across learning areas, values and key competencies.

Sustainability is a critical issue for New Zealand environmentally, economically, politically, and socially. Our national curriculum documents recognise the need to prepare young people for a future that will require them to challenge existing lifestyles and to safeguard and enhance the environment and our place in it.

EfS fosters innovative approaches to curriculum design and review, including such concepts as cooperative learning, inquiry-based learning and experiential learning through real-world contexts.

The New Zealand Curriculum encourages students to look to the future by exploring significant future-focused issues such as sustainability, citizenship, enterprise and globalisation. (See page 9 of the New Zealand Curriculum).

(Source: Education for Sustainability: <http://efs.tki.org.nz/EfS-and-the-Curriculum>).

Alongside the New Zealand Curriculum, there are four key spheres that underpin the development and implementation of our programmes for schools.

Biophysical: Living things and life support systems

Social: People living together

Political: Power, policy and decisions

Economic: Jobs and money

EfS encourages involvement by all participants, from decision-making through to taking action, resulting in a sense of ownership and responsibility.



Who we are

Our educators are all trained teachers with masses of ideas, enthusiasm and passion to help you educate for a sustainable future. We are available to work with you, your class, and your school.



Sian Carvell Team Leader, Education for Sustainability

Teaching/EfS experience

Nine years experience in primary schools in NZ, with particular interest in EfS, art, and outdoor education. I have been part of the team at Environment Canterbury since July 2002.

Strengths/responsibilities

Team leader with responsibilities for Freshwater, stormwater and hazards.
Enviroschools Canterbury Chair.

Contact details

Phone: (03) 353 9736
sian.carvell@ecan.govt.nz



Andrea Taylor Enviroschools Regional Coordinator

Teaching/EfS experience

I have been part of the Environment Canterbury team since January 2008. I have five years primary teaching experience and I have also worked with health promoting schools in the areas of nutrition and physical activity.

Strengths/responsibilities

Enviroschools Regional Coordinator, primary – creating sustainable communities.

Contact details

Phone: (03) 353 9737
andrea.taylor@ecan.govt.nz



Debbie Eddington Educator for Sustainability - Timaru

Teaching/EfS experience

Seventeen years teaching experience in primary schools in Timaru, teaching at all levels. I have been part of the team at Environment Canterbury for three years.

Strengths/responsibilities

Coastal Education, Regional co-ordinator for Seaweed, water, passenger transport, air quality and waste education.

Contact details

Phone: (03) 687 7813
debbie.eddington@ecan.govt.nz



Jocelyn Papprell

Educator for Sustainability

Teaching/EfS experience

25 years experience in secondary schools in NZ and the UK, Social Science specialist with particular interest in EfS. Board of Geography Teachers' representative on the writing panel for the Social Sciences Curriculum 2003-2007. Involved in the development of EFS NCEA Achievement Standards and in the writing of Senior Subject Guidelines for EfS.

Strengths/responsibilities

Urban issues, pest education, secondary focus, transport issues and awards.

Contact details

Phone: (03) 371 7108
jocelyn.papprell@ecan.govt.nz

What we offer

Educators can visit your school to facilitate any of our **FREE** programmes or to deliver individual lessons on regional environmental issues, which relate directly to your area or topic of study.

BE QUICK – OUR PROGRAMMES ARE POPULAR!

Enviroschools Canterbury

Enviroschools Canterbury

Imagine... a generation of innovative and motivated young people, who instinctively think and act sustainably.

Enviroschools is a whole school approach to education for sustainability. With support from the school community, students plan, design and take action to create a sustainable school environment.

Enviroschools Canterbury is a partnership between The Enviroschools Foundation and local organisations and agencies. A regional team offers support to schools across Canterbury in the journey to become a sustainable school community.

Your contact:

Andrea Taylor

EfS teaching resources

Your Environment Canterbury – EBox

A real box of Education for Sustainability goodies! A local environmental issue with activities to support learning, this resource is one of our most popular – and it is FREE!



Clearing the Air

Breathes fresh air into the issue of wintertime smog – what actually is air pollution, what causes it, why it is so bad in Canterbury towns and cities and what you, your family and friends can do about it!

The Canterbury Coastline

The Canterbury coastline is spectacular. This issue explores its many different coastal features, from dunes to lagoons and the living creatures within.

Power the Future

Energy sources both current and future. Create mini solar, wind and hydro generators in your classroom.

Are You Ready?

Change is in the air, all the time, everywhere! Sometimes you are ready for it and sometimes it is unexpected. But no matter what, it is a sure thing. So let's hunker down and contemplate how our changing world impacts on the way we do things now and in the future.

On the Move

A journey about transportation – what it involves, the regional trends, the impact it may have on the environment, and possible solutions to our transport woes.

Waste Not, Want Not

Nobody wants a landfill in their back garden or next door. But what do we do with all the stuff we throw away?

Water - The Lifeblood of Canterbury

In this issue, we dive into water, a natural resource that can be taken for granted – but shouldn't be.

Biodiversity and Terrestrial Pests

How do the relationships between the different life forms in an environment change when there are unwanted guests such as possums and mustelids?

Wild, Wonderful Wetlands

What are they, how do they work, and why are they so important? What impacts do people have on wetlands and how can we change this behaviour?

Get Grounded

Brown, dirty, muddy, hard, sandy, grassy – the ground underneath us is vital stuff! What soils are found in Canterbury and how are people using them?

Underwater Mayhem

What exotic beasts reside in our underwater gardens? New Zealand's freshwater ecosystems are under threat from a range of introduced plants and animals.

A Changing Climate

Our weather is changeable at the best of times but global warming is adding to the changes we are experiencing. This issue explores climate change's global implications, including what it means for New Zealand and Canterbury.

Your contact: Sian Carvell



The Canterbury Coast

Canterbury has a spectacular and diverse coastline stretching from Kaikoura to the Waitaki River. In between are the sandy beaches and dunes of Pegasus Bay, the rocky platforms of Kaikoura and Banks Peninsula, coastal lagoons, estuaries and shingle beaches.



Resources

Sea Chest - A coastal resource for teachers

- Canterbury's Spectacular Coast
 - Canterbury's Marine and Coastal Animals
- Booklets designed to be used together but can be used individually.*

- Spectacular Coast - Coastal Dunes
 - Spectacular Coast - Coastal Wetlands
 - Spectacular Coast - Rocky Shore
- Supplementary units of work including lesson plans and activities.*

Interactive websites available on the Environment Canterbury website:

- Wild Wonderful Coastal Wetlands
- Dramatic Dynamic Dunes

Your contact:

Debbie Eddington



Let's get ready! Community Resilience and Hazards

All about how well we adapt to change, and in this instance, to environmental change. The shake of an earthquake, a threat of floods, the unpredictability of a pandemic and the global warming of our planet can all be a bit scary and daunting.

Resources

The Q Files

- Exposing Canterbury's Shaky Future
- Defining Moments in Nature
- Tsunamis
- Liquefaction: The solid facts on Christchurch liquefaction.

Your contact:

Sian Carvell



Air – but not as we know it!

Air is all around us, we need it to live, and when it becomes polluted it affects everyone. Wintertime air quality in Canterbury's towns and cities is often below acceptable standards, and most of the pollution (80 - 90%) comes from home heating.

Resources

Clear the Air

A classroom programme for Years 5-8. Includes an introductory a free class set of workbooks, a teacher resource kit, and a box of visual resources on loan for the duration of the unit (2-3 weeks).



The Air We Breathe

Senior Geography resource. Class set of workbooks plus teachers' NCEA Level 2 assessment schedule. No in-class facilitation offered, but we can arrange presentations from council staff to complement work based on this resource.

Your contacts:

Debbie Eddington (Primary);

Jocelyn Pappriill (Secondary)

Let's Tip the Balance – Waste

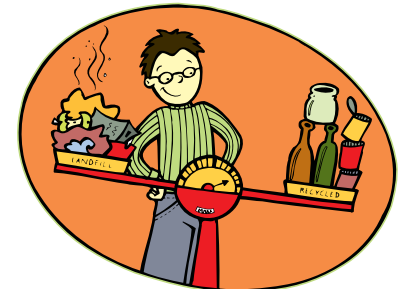
Did you know... you could fill the WestpacTrust Centre about three and a half times over with the amount of waste (263,000 tonnes) that the Canterbury region generates each year? It is an ever-growing problem and one that we just can't ignore.

Resources

A fun, interactive cartoon-based way to learn about waste, aimed at year 5-8 students. It highlights how actions have reactions and how individual choices influence the war on waste. To add to the experience and learning, a student workbooks and a facilitator's guides are available.

Your contact:

Sian Carvell



EfS Facilitated programmes

The Lifblood of Canterbury - Water

Water is perhaps the number one natural resource issue in Canterbury. Whether we're talking quality or quantity, the demand for Canterbury's water is extremely high. Canterbury has some of the cleanest water in the world, some of which is drawn from underground aquifers and which we can drink untreated.

Resources

Waitaha Wai

Is a comprehensive water education resource written for years 7 and 8. This resource is FREE to teachers and, depending on bookings, some facilitation support is available.

- Waitaha Wai Water of Canterbury
- Waitaha Wai Waterways of Christchurch

Waitaha Wai Supplements:

- Canterbury Mudfish/Kowaro
- Kaiapoi Catchment
- Waihi, Opihi, Orari Rivers and their tributaries
- Lake Ellesmere
- Wainono Lagoon and its tributaries

Your contacts:

Debbie Eddington (South Canterbury); Sian Carvell (Mid and North Canterbury)



Let's Get Moving! Transport

In 2006 there were 338, 517 cars in Canterbury. That's nearly 2 for every 3 people! And a lot of Cantabrians, such as children, don't drive. That's a lot of cars! Motor vehicles can have a great effect on the environment.

Resources

Move It

A year 5-8 inquiry-learning programme for Canterbury schools. With support from the class teacher and Environment Canterbury facilitator, the students develop outcomes and a plan to reduce car use, and increase shared and active transport in their school community.

From a to b – Billy Bus

A resource for year 1-3 students and teachers. 'From a to b' centres on bus awareness and safety. This free programme is fully facilitated and includes student and teacher booklets, CD ROM, song and bus visit.

Your contact:

Jocelyn Papprell

What a pest! – Investigating the impact of pest species on biodiversity

Ants in the kitchen, fleas on the dog, rats in the roof, Old Man's Beard in the garden – at some point, everyone has been annoyed or pestered by pests. Animals and plants are considered pests when they are "out of place," causing damage or harm to people, property, pets, native plants and animals, or the environment.

Resources

What a pest!

Pest Education Kit Years 5-8. Discover what things are considered pest species in Aotearoa New Zealand and turn your students into Pest Detectives tracking down clues to solve pest problems in safe and effective ways.

Your contact:

Jocelyn Papprell



Environment Canterbury School Awards

Environment Canterbury sponsors a number of regional awards for students. These awards are designed to recognise and reward young people who are thinking and acting for a sustainable future.



Science and Technology Fairs

Environment Canterbury staff judge exhibits in the special category of Resource Management in the Science and Technology fairs held in Christchurch and Timaru. Awards are given to students whose exhibits take an innovative investigative approach to solving an environmental issue facing Canterbury.

There are 2 categories: Years 7-8 and Years 9-13.

Prizes:

Winning exhibitors receive \$1000 for their school.

Students receive:

\$400 - 1st place

\$150 - 2nd place

\$80 - 3rd place

Senior students [Years 12 and 13] are also offered work experience.

Wrybill Trophy

Each year, the winners of the Environment Canterbury School Award category present their exhibits to an expert panel. The overall winner is awarded the Wrybill Trophy, the best of the best!



Youth Leadership for Sustainability Awards

Encouraging the next generation of sustainability leadership. These awards are sponsored in partnership with Te Runanga o Ngai Tahu.

The Youth Leadership for Sustainability (YLS) award has two categories - individual and group. Entries are invited from Canterbury secondary school students who have been making a difference in the community, at school or in their own household.

We are looking for individuals and groups who, through their own or school/organisational initiatives, have done something positive towards making Canterbury a great place to live.

Category - Individual:

Any student in Years 12-13 living in Canterbury who has been making a difference and is willing to present or display their own unique project.

Category - Group:

Any group of 13-18 year olds within Canterbury who have worked on a sustainability initiative either within school or beyond (this can be in collaboration with a community organisation).

Youth Environment Forum - The Sir Peter Blake Trust Award

Annually three students (aged 15-18) from Canterbury are selected from a pool of applicants to represent the region at the 4-day hui in Wellington. There they will engage in workshops and activities designed to inspire them and build their leadership capabilities.

Your contact:

Jocelyn Papprell



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*Promoting quality of life through
balanced resource management.*

www.ecan.govt.nz

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