

Learning Through Action

Environmental LEOTC Education
Programmes for Schools 2014



**Ko tōku
ao, ko tō ao**
“my world is your world”

There's no substitute for real world experience.

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Learning Through Action

Environmental LEOTC education programmes for schools

The Christchurch City Council offers a range of environmental and city infrastructure programmes that are free to schools. These programmes provide relevant and authentic learning experiences through hands on activities.

Learning areas covered in the programmes:

- Conservation of water
- Ecosystems
- Sustainability of resources
- Organic waste cycle
- Biodiversity
- Impact of pests
- Geology
- Outdoor survival
- Waste management
- Native trees and plants

As the programmes are experiential and interactive we encourage students to be immersed in the unique environments when participating in the programmes. We are supportive of students and teachers using cameras, iPhones and tablets to record any findings resulting from their learning however we ask that the delivery of the lesson by Environmental Teachers and Rangers are not digitally recorded.

This booklet briefly describes programmes available to teachers in Christchurch.
For details of programmes including programme outlines, links to the NZ Curriculum and RAMS please visit the Christchurch City Council’s Learning Through Action website: www.ccc.govt.nz/learningthroughaction

Programmes cater for students from new entrants to year 13. Learning Through Action Programmes are supported by the Ministry of Education – The Christchurch City Council Education Team is a Learning Experiences Outside The Classroom (LEOTC) provider.



Civil Defence Emergency Management (CDEM) education programmes for primary schools

The Christchurch City Council also offers free Civil Defence Programmes to schools, concentrating on disaster awareness and preparedness; including reduction, readiness, response and recovery. These programmes are run in classrooms at your school so are not part of the LEOTC programmes.

Bookings

To book any of the programmes in this booklet please fill in a separate form for each class you are booking. Book online at: www.ccc.govt.nz/learningthroughaction/booking



Biodiversity

Junior park explorers

The regional parks come alive, as students awaken their senses to explore the awe and wonder of the natural world. They learn to listen to different bird calls; feel the different parts of the tree; see mini-beasts in their local habitat. Through these activities, students understand how birds, trees and insects are all connected.

Year level: New entrant – Year 2
Curriculum level: 1 – 2
Availability: Available year round, predominantly in Terms One and Four
Length: 2 hours
Site: Your local regional park: The Groynes, the Botanic Gardens, Halswell Quarry, Victoria Park and Spencer Park
Cost: Free
Number of students: Minimum of 18 and a maximum of 30 students

Park detectives - advanced junior park explorers

Students will build on their knowledge from Junior Park Explorers and further develop their detective skills in learning why our local green spaces are so important to our lives as humans. Hands on activities enable them to describe the key roles in these perfectly balanced ecosystems, before students engage in a problem-solving process and use this learning to propose action for the future!

Year level: 3 – 5
Curriculum level: 1 – 4
Availability: Predominantly in Terms One and Four
Length: 2.5 hours (mornings), 2.2 hours (afternoons)
Site: Christchurch Botanic Gardens
Cost: Free
Number of students: Minimum of 18 and a maximum of 30 students



Native nurturing

Through historical accounts and a multi-sensory walk on the Port Hills, students discover and consider the different values associated with two contrasting landscapes: Podocarp forest and tussock grassland. They are encouraged to engage with sustainability issues around our native forests, particularly in terms of the impact of pests.

Year level: 3 – 8
Curriculum level: 1 – 4
Availability: Available year round
Length: 2.25 hours (mornings), 2 hours (afternoons)
Site: Port Hills - Victoria Park
Cost: Free
Number of students: Maximum 35 students



Forest survivor

Students will identify organisms making their homes in the exotic forest environment. They will learn about safety in the outdoors, including how to build a bivouac shelter out of fallen materials.

Adventurous students will have the opportunity to try a squirmy huhu grub, learning the importance of using wild food for survival.

Year level: 3 – 8
Curriculum level: 1 – 4
Availability: Available year round
Length: 2.5 hours (mornings), 2.25 hours (afternoons)
Site: Bottle Lake Forest Park or Spencer Park
Cost: Free
Number of students: Maximum 35 students



Freshwater frolicking

At the Groynes or Styx Mill Conservation Reserve, students identify a range of stream invertebrates and explore the wider food chains and life cycles. They then consider the importance of our biodiversity eating nutritionally and appropriately, as well as investigating the impact of human choices on the sustainability of the ecosystem.

Age: 3 – 8
Curriculum level: 1 – 4
Availability: Available year round
Length: 2.5 hours (mornings), 2.25 hours (afternoons)
Site: The Groynes or Styx Mill Conservation Reserve
Cost: Free
Number of students: Maximum 35 students



Wetlands, waders and water boatmen

Take a trip to Travis Wetland, Christchurch's largest freshwater wetland and an important habitat for native wetland plants and birds. Students learn about the biodiversity of the wetland, go pond-dipping to discover the underwater species, and get behind a pair of binoculars to check out the huge variety of bird life.

Year level: 3 – 8
Curriculum level: 1 – 4
Availability: Available year round
Length: 2.5 hours (mornings), 2.25 hours (afternoons)
Site: Travis Wetland
Cost: Free
Number of students: Maximum 35 students



Creative and native

In the Botanic Gardens, students explore scientific terms around the life and origin status of New Zealand biodiversity, before investigating how and drawing conclusions as to why our biodiversity has changed over time. Students become a flock of migratory birds to consider the challenge facing the sustainability of natural habitats and they identify a selection of native trees and plants.

Year level: 5 – 8
Curriculum level: 2 – 4
Availability: All year round
Length: 2.5 hours (mornings), 2.25 hours (afternoons)
Site: Christchurch Botanic Gardens
Cost: Free
Number of students: Maximum 35 students

The Christchurch art gallery offers a complementary programme, please email the art gallery, artgallery.schools@ccc.govt.nz



City Water and Waste

All flushed out (*resumes April 2014*)

Our wastewater is carried through a network of underground pipes and pumps to the Christchurch Wastewater Treatment Plant. At this facility, students will discover what happens to anything that goes down the drain. Be prepared for a revival of your senses - this is a smelly one.

Year level: 5 – 13

Curriculum level: 2 – 8

Availability: Available year round

Length: 2.5 hours (mornings)
2.25 hours (afternoons)

Site: Christchurch Wastewater Treatment Plant

Cost: Free

Number of students: Maximum 35 students

Requirements: Closed in shoes must be worn.

Casting magic with worms

Even worms are doing their thing for the environment! A programme aimed at junior students to discover the important role worms can play in our waste management system. Students search the area for worms and create their own worm farm to take back to school.

Year level: 0 – 4

Curriculum level: 1 – 2

Availability: Available year round

Length: 2 hours

Site: EcoDepot/EcoDrop, Metro Place or Curators House, Botanic Gardens

Cost: Free

Number of students: Maximum 30 students

Requirements: Each student needs to bring a 1.5 litre plastic bottle ready for reusing. Closed in shoes must be worn.



A waste of time

Students will gain an insight into the Reduce, Reuse and Recycle aspects of the waste management hierarchy.

This is highlighted by visits to:

EcoSort — Students will investigate the importance of reducing over recycling before exploring how the Materials Recovery Facility (MRF) separates the resources from the Recycling (yellow top) wheelie bins, then explore what products these resources can be recycled/made into.

EcoDrop — A quick drive past the recycling drop off area to identify resources that can be dropped off for reuse and recycling that are not part of the Kerbside collection.

EcoShop — A leap into the future as students are invited to imagine they are moving into a new flat, so need to decide which items they would purchase with their designated budget. This activity reinforces the concept of Reuse.

Year level: 5 – 13

Curriculum level: 2 – 8

Availability: Available year round

Length: 2.5 hours

Site: EcoSort (Parkhouse Road Materials Recovery Facility, 'MRF'), EcoDrop Parkhouse (EcoDepot / Refuse Station) and EcoShop (SuperShed, Blenheim Road)

Cost: Free

Number of students: Maximum 35 students

Requirements: Closed in shoes must be worn.



Fertilising for the future

Students learn the science behind reducing and utilising organic waste as a resource by turning it into natural fertilisers.

For Curriculum Levels 2 to 4 students investigate the methods of hot heap composting and vermicompost. Students will layer ingredients in a bin to make hot compost and learn how to maintain a worm farm, harvesting vermicompost and liquid fertiliser.

For Curriculum Levels 4 to 8 students learn the method of hot heap composting and investigate the anaerobic fermentation of food scraps using EM Bokashi.



Year level: 4 – 13

Curriculum level: 2 – 8

Availability: Available year round

Length: 2.5 hours

Site: EcoDepot / EcoDrop, Metro Place

Cost: Free

Number of students: Maximum 35 students

Requirements: Closed-in shoes must be worn

Water for life

Students learn how to be waterwise! At one of Christchurch's water pumping stations, students investigate the importance of valuing water as a precious resource. They compare water use around the world and view the various pump station components. The programme finishes with a range of problem solving and reinforcement activities. Students can continue their learning at school with a Christchurch City Council water diary and mathematical challenge.

Year level: 5 – 8

Curriculum level: 2 – 5

Availability: Available year round

Length: 2.5 hours (morning), 2.25 (afternoon)

Site: Main Water Pumping Station, Colombo Street

Cost: Free

Number of students: Maximum 35 students



Waterways and wetlands

Freshwater frolicking

At the Groynes or Styx Mill Conservation Reserve, students identify a range of stream invertebrates and explore the wider food chains and life cycles. They then consider the importance of our biodiversity eating nutritionally appropriately, as well as investigating the impact of human choices on the sustainability of the ecosystem.

Year level: 3 – 8

Curriculum level: 1 – 4

Availability: Available year round

Length: 2.5 hours (morning),
2.25 hours (afternoon)

Site: The Groynes or Styx Mill Conservation Reserve

Cost: Free

Number of students: Maximum 35 students



Wetlands, waders and water boatmen

Take a trip to Travis Wetland, Christchurch's largest freshwater wetland and an important habitat for native wetland plants and birds. Students learn about the biodiversity of the wetland, go pond-dipping to discover the underwater species, and get behind a pair of binoculars to check out the huge variety of bird life.

Year level: 3 – 8

Curriculum level: 1 – 4

Availability: Available year round

Length: 2.5 hours (morning),
2.25 hours (afternoon)

Site: Travis Wetland

Cost: Free

Number of students: Maximum 35 students



Beach and shore habitats

Searching the shoreline

What’s on the beach? What gets washed up and what shouldn’t be there? This is a chance for students to investigate objects on the beach - natural and unnatural - and identify ways that they can contribute to sustainable coastal areas.

Year level: 0 – 4
Curriculum level: 1 – 3
Availability: Available year round (tide dependent)
Length: 2 hours
Site: Spencer Park beach, Waimairi beach, North New Brighton beach, New Brighton beach and South New Brighton beach.
Cost: Free
Number of students: Maximum 35 students



Saving the sand dunes

In this programme students build their own mini sand dunes, to understand the secret behind them; how they work to protect the coastal environment.

Year level: 3 – 8
Curriculum level: 1 – 4
Availability: Available year round
Length: 2 hours
Site: Spencer Park beach, Waimairi beach, North New Brighton beach, New Brighton beach and South New Brighton beach.
Cost: Free
Number of students: Maximum 35 students



Coastal management

Students will have an opportunity to explore the coastal environment, while examining the issues on the hot topic of coastal management. They will also explore the issue of coastal erosion – through natural processes and human interference. With the Coastal Park Rangers, students build their own beach profile discovering different coastal management techniques.

Year level: 11 – 13
Curriculum level: 5 – 8
Availability: Available year round
Length: From 2.5 hours
Site: Spencer Park beach, Waimairi beach, North New Brighton beach, New Brighton beach and South New Brighton beach.
Cost: Free
Number of students: Maximum 35 students



Geology

Rocky road of discovery

Students will discover the history of the Quarry and investigate the different geological rock types found around the site. They will explore how the Quarry has been transformed into a regional park catering for recreational activities, alongside sustaining natural environments for native species and showcasing the multi-cultural nature of Christchurch today through Sister City gardens.

Year level: 3 – 8
Curriculum level: 1 – 4
Availability: All year round
Length: 2.5 hours (morning), 2.25 hours (afternoon)
Site: Halswell Quarry Park
Cost: Free
Number of students: Maximum 35 students



Christchurch City

Our city uncovered (resumes mid 2014)

An insight into what a city council does, how it works and what services and facilities we require to build a city.

Year level: 5 – 8
Curriculum level: 2 – 5
Availability: All year round
Length: All day from 9.30am to 2.30pm
Site: Christchurch City Council, 53 Hereford Street
Cost: Free
Number of students: Maximum 35 students

Environmental calendar of events

The following days, weeks or years could be used to promote certain LTA programmes around these national or international events.

- | | |
|------------------|---|
| February | - World Wetland Day
- National Bike Week |
| March | - Seaweed
- World Water Day
- World Meteorological Day |
| April | - Earth Day
- UN Global Road Safety Week |
| May | - World Migratory Bird Day
- International Day for Biological Diversity |
| June | - World Environment Day
- Arbor Day
- World Oceans Day
- World Day to Combat Desertification and Drought |
| July | - World Population Day |
| August | - Conservation Week |
| September | - International Day of Peace
- International Day for the Preservation of the Ozone Layer
- Clean Up the World
- Keep New Zealand Beautiful Week |
| October | - World Habitat Day
- Heritage Week
- World Disaster Reduction Campaign Get Ready Week
- World Food Day
- International Day for Eradication of Poverty
- World Rainforest Week |
| November | - International Buy Nothing Day |
| December | - International Biodiversity Day |
| 2013 | - International Year of Water Cooperation |
| 2005–2015 | - International Decade for Action “Water for Life” |
| 2011–2020 | - United Nations Decade on Biodiversity |
| 2014–2024 | - United Nations Decade of Sustainable Energy for All |

United Nations Observances
www.un.org/en/events/observances

Programme location map

Learning Through Action programmes are available at the following sites:



Programmes to resume in 2014

- **All flushed out** – Christchurch wastewater treatment plant
- **Our city uncovered** – Under development, due to start in mid 2014

More information

For more information regarding content of programmes:

Phone: 941 8298 or 941 8067

Email: educationceg@ccc.govt.nz

To book a programme fill in a separate form for each class you are booking: www.ccc.govt.nz/learningthroughaction/booking

Civil Defence Emergency Management (CDEM)

Education Programme - Stan's Got a Plan

Here in Christchurch we are all too aware of natural disasters. We know what do to in the event of an earthquake, but they aren't the only disaster that we need to be prepared for. The Christchurch City Council provides an education programme called 'Stan's Got a Plan' to supplement the delivery of Civil Defence Emergency Management education in the classroom.

The programmes focus on one of the following events most likely to occur in Canterbury:

- Earthquakes
- Flooding
- Pandemic
- Tsunami
- Storms

Programmes are tailored specifically to the age of the students and are delivered in a sensitive and caring manner.

The purpose of the programmes is to educate children so that they feel empowered, not scared.

Programmes are FREE of charge and are offered at Junior (years 1-3), Middle (years 4-6) and Senior levels (years 7 & 8).

More information

For more information regarding content of Civil Defence Emergency Management programmes:

Phone: (03) 941 8298

Email: educationceg@ccc.govt.nz

Website: www.ccc.govt.nz/stansgotaplan

Bookings

To make a booking, fill in a separate online booking form for each class you are booking:

Website: www.ccc.govt.nz/learningthroughaction/booking



Other programmes available

Cycle Safe

Cycle Safe is a programme for schools targeting year six students. Children learn to ride their cycle with confidence and be road-wise. The programme includes: cycle maintenance, correct fitting of helmets, basic and on road cycling skills.

All students receive a personal certificate detailing their achievements at the end of the programme.

The Programme is aligned with NZ Transport Agency's national cyclist skills training guidelines.

Contact us

Phone: 941 8067

Mobile: 027 224 9577

Email: educationceg@ccc.govt.nz

Website: www.ccc.govt.nz/cyclesafe



Crash Bash

Crash Bash is an educational road safety programme for secondary school students organised by Christchurch City Council and partly funded by New Zealand Transport Agency (NZTA).



The Crash Bash programme uses a creative stage performance to raise awareness among students about thinking and planning ahead to make safe decisions and choices around driving, alcohol and their peers. The show is performed by graduates from the National Academy of Singing and Dramatic Art (NASDA).

The show tours Christchurch secondary schools annually during term one.

Contact us

Community Travel Advisor

Phone: 941 8999

Email: educationceg@ccc.govt.nz

Website: www.crashbash.co.nz

School Travel Plans

The Council works with schools on developing travel plans that promote safer and more sustainable travel options for school related journeys.



School Travel Planning can be used to address congestion at the school gate and other road safety issues for children. It helps promote healthy and active lifestyles for children, and supports such values identified in the New Zealand curriculum as community and participation and ecological sustainability.

Contact us

Community Travel Advisor

Phone: 941 8999

Email: educationceg@ccc.govt.nz

Website: www.ccc.govt.nz/schooltravelpans



Christchurch City Council

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Or visit our website: www.ccc.govt.nz/learningthroughaction