

MARLBOROUGH CONSERVATION EDUCATION TOOLBOX

A resource developed by the Department of Conservation
in conjunction with community conservation groups

Revised February 2021



Department of
Conservation
Te Papa Atawhai

New Zealand Government

CONTENTS

Introduction	4	Kaipupu Wildlife Sanctuary	13
Contents: Curricular links	5	Project summary	13
Climate Karanga Marlborough	7	Education programme	13
Project summary	7	Koru Native Wildlife Centre	14
1. Solar Oven project	7	Project summary	14
2. ‘Species threatened by climate change’ quiz	8	Marlborough District Council freshwater education	15
3. ‘Ocean acidification’ quiz	8	Project summary	15
Conservation Kids NZ	9	Education programmes	15
Project summary	9	1. Wai Korero booklet and kit	15
Education programmes	9	2. Our Fabulous Freshwater Fish: eels, whitebait and more!	15
1. Marlborough Envirohub	9	3. Stormwater and urban streams	15
2. Animal Activist programme	9	4. Scientific Stream Study: how healthy is this stream?	15
Department of Conservation	10	5. River catchments and pollution	16
Project summary	10	6. Writers’ Walk challenge	16
Education programmes	10	Marlborough District Council water and waste treatment	17
1. National resources	10	Project summary	17
Photo: DOC	10	Education programmes	17
2. Experience Momorangi	11	1. Marlborough’s Water Booklet	17
3. Mill Flat (Pine Valley)	11	2. Visits to the water treatment and wastewater treatment plants	17
4. Living Landscape kits	11	Marlborough District Council waste minimisation	18
5. Ranger support	11	Project summary	18
EcoWorld Science Heritage and Education Trust	12	Education programmes	18
Project summary	12	1. Waste kit	18
Education programme	12	2. Visits to Marlborough’s waste facilities	18
Education Outside the Classroom	12	3. Organic waste options	18

Marlborough Falcon Conservation Trust	19
Project summary	19
Education programmes	19

Marlborough Sounds Wildlife Recovery Trust	20
Project summary	20
Education programmes	20
1. The Reef Tour	20
2. The Conservation Tour.....	20
3. Explore Lochmara.....	20

Mistletoe Bay Eco Village	21
Project summary	21
Education programmes	21
1. The Mistletoe Experience.....	21
2. Marine studies with NZ Marine Studies Centre ..	21

New Zealand Marine Studies Centre... ..	22
Project summary	22
Education programmes	22
1. Primary programmes	22
2. Secondary programmes	22
3. Tailored programmes and special events	22
4. Voyage of Discovery with Steadfast.....	22

Pelorus Bat Recovery Project (Forest and Bird).....	23
Project summary	23
Education programme	23
Long-tailed bat viewing	23

Picton Dawn Chorus	24
Project summary	24
Education programmes	24
1. Trapping in action.....	24
2. Make your own trap	24

Index: Focuses and strengths of the community conservation groups	25
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INTRODUCTION

Conservation education

Conservation education aims to increase the value of conservation to New Zealanders. Our young people are the next generation of advocates and decision makers, so it is essential we connect them to nature. Effective conservation, delivered through schools, will foster a life-long commitment to conservation from children – and their parents.

Community conservation education in Marlborough

Marlborough has many conservation educators within community groups and agencies who can provide education and experiences to schools. The various groups focus on a range of habitat, species and conservation actions.

Using conservation groups to deliver or support school programmes has many benefits.

- Opportunities for real-life, hands-on conservation, such as trapping, pest monitoring or planting.
- Exposure to the work of community conservation groups sends the inspirational message that everyone can positively influence and contribute to conservation in their communities.
- Opportunities for students to learn about and participate in collaborative projects, and find their place in the environment and community.
- Exposure to different perspectives; students can develop their problem-solving and critical-thinking skills.
- Students can develop empathy and personal responsibility, while increasing their awareness for the environment.
- Teachers can incorporate conservation education into standard curricular requirements such as maths, English and science.

Marlborough Conservation Education Toolbox

This resource is regularly reviewed and updated. The conservation groups involved are committed to upskilling and being relevant to Marlborough's schools. We welcome feedback on the toolbox or school programmes; contact the Community Ranger, at picton@doc.govt.nz

Material world	Climate Karanga Marlborough	Conservation Kids NZ	DOC: Experience Momorangi	DOC: Mill Flat	EcoWorld Trust	Kaipupu Point Wildlife Sanctuary	Koru Native Wildlife Centre	MDC: Freshwater education	MDC: Water and waste treatment	MDC: Waste Minimisation	Marlborough Sounds Wildlife Recovery Trust (Lochmara)	Mistletoe Bay Eco Village	NZ Marine Studies Centre	Pelorus Bat Recovery Project	Picton Dawn Chorus
Properties and changes of matter										Y					
The structure of matter															
Chemistry and society								Y	Y	Y					
Social science															
Identity, culture and organisation						Y				Y		Y	Y		
Place and environment		Y	Y	Y		Y		Y	Y	Y	Y	Y	Y		Y
Continuity and change		Y						Y		Y	Y	Y	Y		Y
The economic world										Y	Y	Y	Y		
Mathematics and statistics															
Numbers and algebra	Y														
Geometry and measurement						Y				Y					
Statistics	Y		Y	Y				Y		Y		Y			
Health and physical education															
Personal health and physical development												Y			
Movement concepts and motor skills															
Relationships with other people		Y				Y						Y			
Healthy communities and environments	Y	Y	Y	Y				Y	Y	Y	Y	Y			Y
English															
Listening, reading and viewing	Y	Y	Y	Y		Y		Y	Y	Y	Y	Y	Y		
Speaking, writing and presenting	Y	Y	Y	Y		Y		Y		Y	Y				

CLIMATE KARANGA MARLBOROUGH

Project summary

Climate Karanga Marlborough (CKM) was formed in 2015 by a group of local people concerned about climate change. It aims to increase awareness and action at local and national levels. CKM's education programme aims to advise, help and inspire New Zealanders to take responsibility for their actions.

Education programmes

Designed to link classroom learning to the Earth Day Party (celebrated for the first time in Marlborough in 2017), the programme could, however, stand alone. CKM is planning to make Earth Day an annual celebration to be held in conjunction with the Global March for Science on or around 22 April, and is keen to involve young people and families.

The programme would help develop students' understanding of a range of science concepts, particularly reflection, absorption, convection, radiation and insulation, and raise their awareness and understanding of renewable energy and its importance to the well-being of our planet. The programme would also provide opportunities to link to other community groups involved in Earth Day.

1. Solar Oven project

With this project, students carry out classroom-based preparatory activities then construct and test solar ovens. The programme develops students' understanding of science concepts, particularly reflection, absorption, convection, radiation and insulation, and of renewable energy and its importance to our planet's wellbeing. Solar ovens can be made of common materials, making this a cheap activity to run.

Logistics

Location: classroom and outdoors, such as school grounds.

Cost: small expenditure on items like cardboard boxes, black and white construction paper, aluminium foil, clear plastic wrap, and glue or tape. Other items such as rulers, scissors, newspaper and baking tins are readily available.

Age: 8–12 years

Setting: indoors and outdoors

Time: varies

Availability: February–April (to coincide with Earth Day)

Further information:

Tom Powell
tomspowell@hotmail.com
Ph 027 224 7362

2. 'Species threatened by climate change' quiz

This outdoor 'information treasure hunt' activity is based on 25 posters (distributed by The Global Education Project – www.theglobaleducationproject.org) of animals at risk from climate change. Students learn about animals around the world that are threatened or have been made extinct by climate change, the climate change processes responsible for this threat, and the animals' characteristics that make them susceptible to climate change.

Location: school grounds or large classroom

Cost: posters, quiz, pencils and clipboards can be borrowed from CKM for free

Age: years 4–10

Setting: outdoors or large indoor space

Time: 1 hr 30 min – 2 hr

Availability: on request. CKM volunteers may be available to set up and run the quiz.

Further information:

Tom Powell

tomspowell@hotmail.com

Ph 027 224 7362

3. 'Ocean acidification' quiz

This quiz deals with iconic local species like snapper, green shell mussel and pāua. Students learn about New Zealand sea life that is threatened by ocean acidification (due to rising levels of atmospheric carbon dioxide) and the research programs studying this.

Location: classroom

Cost: free

Age: years 9–13

Setting: indoor space

Time: estimate 1 hour for the quiz

Availability: on request. CKM volunteers may be available to set up and run the quiz.

Further information:

Tom Powell

tomspowell@hotmail.com

Ph 027 224 7362



CONSERVATION KIDS NZ

Project summary

Conservation Kids New Zealand (CKNZ) is a small environmental organisation based in Picton and run by the Envirohub Marlborough Charitable Trust. Its experienced, enthusiastic team provides environmental education and hosts events and activities that complement the school curriculum.

CKNZ's mission is 'To inspire and enable Marlborough's youth to take action for conservation'. To achieve this, CKNZ aims to collaborate with other environmental organisations to create unique and fun learning experiences.

Education programmes

1. Marlborough Envirohub

A facility to unite, inspire and assist Marlborough youth, families and individuals to achieve their environmental goals. Ideal for encouraging students to take environmental action. The hub offers connections, support and premises for students, teachers and families to learn about or pursue conservation ideas and campaigns.

Logistics

Location: 14 Auckland Street, Picton

Cost: free

Age: all ages

Setting: indoor activities and events leading to outdoor actions

Time: varies

Availability: all year

2. Animal Activist programme

This programme caters for students who are extra-passionate about protecting a New Zealand species, or our environment in general. Students may apply themselves or be nominated. Once chosen, CKNZ provides activists with experiences to inspire them, and prompts them to ask questions, get answers and find solutions. We help students create a campaign that inspires others, takes action for conservation and ensures students' voices are heard!

Logistics

Location: varies

Cost: free

Age: ideal for 5–12 years of age

Setting: indoor and outdoor activities/opportunities on both land and sea

Time: varies

Availability: all year

For more info visit
www.envirohub.co.nz/conservationkidsnz or
www.facebook.com/conservationkidsnz



Photo: Conservation Kids NZ



DEPARTMENT OF CONSERVATION

Project summary

We are the government agency charged with conserving New Zealand's natural and historic heritage.

We organise our work around five outcomes:

- the diversity of our natural heritage is maintained and restored
- our history is brought to life and protected
- more people participate in recreation
- more people engage with conservation and value its benefits
- conservation gains from more business partnerships.



Photo: DOC

Education programmes

1. National resources

DOC has developed a series of high-quality education resources that can easily be led by the teacher. They enable students to undertake some initial enquiry based lessons in the classroom, reinforced with a field trip and then followed by action-based post-trip activities. These activities can be undertaken at almost any site or in the classroom and may complement programmes offered by other groups.

Logistics

Location: classroom, local community

Cost: free

Age: preschool and primary

Setting: outdoor activities, however the resources provide pre/post-trip activities

Time: various

Availability: all year

Further information:

www.doc.govt.nz/education/

2. Experience Momorangi

Thanks to sponsorship from Kathmandu, education activities and resource kits have been developed for Momorangi Campground. This site is ideal for groups wanting to study the marine or freshwater environments and to learn about a regenerating forest ecosystem and conservation techniques. There are three resource kits: marine, forest and freshwater. Each kit comes with activity instructions and the equipment required. The Momorangi field trip information gives teachers guidance in planning the trip, running activities, and the facilities available.

These resource kits can be used either as a day trip, or overnight camping experience. We also have tents, sleeping mats, TV/DVD and a whiteboard for schools to use.

Logistics

Location: Momorangi Bay

Cost: camping fees will apply; it is free to use the resources

Age: preschool and primary

Setting: outdoor activities, however the resources provide pre/post-trip activities

Time: minimum 2 hr, up to 2 days

Availability: March to December

Further information:

www.doc.govt.nz/momorangi-field-trip-resource/

3. Mill Flat (Pine Valley)

This site is ideal for groups studying the bush or freshwater environments. These resources can be used as a half-day trip while staying at Pine Valley camp.

Logistics

Location: Mill Flat, Pine Valley

Cost: free

Age: preschool and primary

Setting: outdoor activities, however the resources provide pre/post-trip activities

Time: minimum 2 hr

Availability: all year

Further information:

www.doc.govt.nz/mill-flat-field-trip/

4. Living Landscape kits

DOC also has several Living Landscape kits that support the Enviroschools Living Landscape programmes. These can be used at any local 'green space', and fit well with Whites Bay, Mill Flat and Onamalutu ecosystems. They can be borrowed from the Renwick or Picton DOC offices.

5. Ranger support

DOC rangers may be able to support teachers in conservation activities in the field or assist with their conservation action plans.



ECOWORLD SCIENCE HERITAGE AND EDUCATION TRUST

Project summary

The EcoWorld Trust was founded in 2004 and is a registered charitable entity. The Trust focuses on encouraging studies in science, heritage and education. Our vision is that students:

1. have an increased understanding of, and respect for, the environment and our natural heritage
2. believe in the need for a sustainable co-existence between wildlife and people
3. are empowered to take positive action for wildlife and the environment, in a global environment where ecosystems are healthy, understood and valued.

The EcoWorld Aquarium displays tuatara, seahorses, yellow-crowned and red-crowned kākārīki, various local fish species, lizards, frogs and turtles, a preserved 5-m giant squid, life-sized models of orca and Hector's dolphins, as well as a touch pool, kids' area, movies, shells and other displays.

Education programme

EcoWorld's amazing creatures help us understand the bigger picture of protecting our beautiful Marlborough Sounds and the amazing animals that live there. Our knowledgeable staff help you gain a stronger connection to nature with outstanding intimate experiences, discovery sharing and having fun.

Education Outside the Classroom

Our EOTC programme offers fun, interactive, hands-on enquiry-based activities

- Students gain an understanding about many aspects of the Marlborough Sounds' 1) living things, and 2) physical environment.
- It provides positive environmental experiences, designed to inspire and enthuse students about our natural world.
- Programmes are adaptable to teacher and student needs. We can work with you to develop further learning.

Learning outcomes are to:

- explore and gain knowledge about the natural history of the Marlborough Sounds and its biodiversity
- identify past and present threats to the Marlborough Sounds ecosystem
- suggest ideas and actions we can all do to help keep the Marlborough Sounds ecosystem healthy.

Logistics

Location: Picton foreshore – 85 m from the Interislander Ferry Terminal

Cost: EOTC @ EcoWorld – prices:

- Student/child (up to 14 years) \$9
- Tertiary student \$9
- Teacher and lecturer \$9
- Accompanying adult \$9

Age: all ages

Setting: indoor aquarium complex

Time required: 1 hr 30 min

Availability: all year

Further information: www.ecoworldnz.co.nz;
john@ecoworldnz.co.nz; 03 573 6030

KAIPUPU WILDLIFE SANCTUARY

Project summary

Kaipupu Wildlife Sanctuary is a community project to restore a 40 hectare ‘mainland island’ in Picton harbour. The sanctuary offers wildlife viewing, school and group visits, and volunteering opportunities. The 2.7 km circular walking track takes you through recovering native bush, old growth forest, and our restoration zone where school groups can plant native trees. The bush-clad hills are home to unique native wildlife, including tūī, korimako/bellbird, pīwakawaka/fantail, kererū/New Zealand pigeon, kororā/little penguin, tree wētā, Raukawa gecko and Waiharakeke grass skink. Kekenō/New Zealand fur seals often laze on the jetty over autumn and winter.

Public access to the sanctuary is by boat to our jetty on the north-west side.

Education programme

Our environmental education combines classroom activities with field trips to the sanctuary. Students get up close with our specimens of New Zealand birds and predators, and learn about threats to native species from habitat loss and predation.

We encourage students to develop empathy for our wildlife as a basis for taking long-term responsibility for New Zealand’s environment.

Students learn:

- how the predator-proof fence functions
- methods for trapping and monitoring predators
- translocation of species (robin and kiwi)
- how to use artificial refuges for wētā, penguin, lizard.

We also introduce students to the native plants of a lowland coastal forest and their role in food webs, and learn how we monitor the plants’ growth.

Education programmes can be tailored to children’s level of knowledge, the classroom curriculum and time available.

Logistics

Location: Kaipupu Wildlife Sanctuary, Kaipupu Point, Picton

Cost: water taxi transport and any transport cost to Picton

Age: kindergarten to senior secondary

Setting: combines in-class work and/or a field trip to Kaipupu Wildlife Sanctuary

Time required: varies with programme – classroom about 1 hr, field trip minimum 1 hr 30 min

Availability: anytime

Further information:

www.kaipupupoint.co.nz or info@kaipupupoint.co.nz; or Andrew John (573 5509, celtsh2017@gmail.com)



Photo: Kaipupu Wildlife Sanctuary

KORU NATIVE WILDLIFE CENTRE

Project summary

Koru Native Wildlife Centre runs a programme where young people can see and learn more about species like the giant wētā, kākāriki/parakeet and gecko, and about conservation measures to protect these species. Our latest addition is the ‘close-up’ room, where students can examine insects through microscopes. To arrange a school visit, contact the centre.

Logistics

Location: Linkwater

Cost: donation appreciated

Age: 8+

Setting: Koru Centre is located in Smiths Farm Holiday Park in a natural farm setting.

Time required: about 1 hr; you can combine this with the nearby Momorangi Forest Experience walk.

Availability: by appointment only

Further information:

info@tuinaturereserve.co.nz



MARLBOROUGH DISTRICT COUNCIL FRESHWATER EDUCATION

Project summary

The Marlborough District Council (MDC) offers the following resources and sessions to support teachers and students in learning about our local freshwater habitats. Find out more by contacting Anna Crowe at apcrowe@icloud.com, or on the MDC website: www.marlborough.govt.nz/environment/environmental-education/school-education-programmes/freshwater-programme

Education programmes

1. Wai Korero booklet and kit

A waterways resource adapted to Marlborough with supporting resources/equipment for activities, including books, videos and posters.

Logistics

Location: classroom, local community

Cost: free

Age: primary (years 4 to 8)

Setting: indoor and outdoor activities

Time required: various

Availability: all year

2. Our Fabulous Freshwater Fish: eels, whitebait and more!

A classroom-based session exploring Marlborough's diverse native freshwater fish. Life-sized models, photos, stories and video clips are used to teach about our native eels, galaxiids, bullies and more.

Logistics

Location: classroom

Cost: free

Age: primary, secondary

Setting: indoor

Time required: 1 – 1 hr 30 min

Availability: all year

3. Stormwater and urban streams

A school-based interactive session about how river catchments and the stormwater systems work. As a follow-up activity, students can attach blue kōkopu fish shapes on stormwater drains around their school and neighbourhood.

Logistics

Location: school, local community

Cost: free

Age: primary, secondary

Setting: outdoor space

Time required: varies

Availability: all year

4. Scientific Stream Study: how healthy is this stream?

An in-stream field trip designed to get students thinking about the animals and plants living in streams and what they need to be healthy. The students work in small groups to measure water temperature, clarity and flow, and to sample and identify critters living in the stream. All equipment and a facilitator provided!

Logistics

Location: Marlborough stream or river

Cost: free

Age: primary (year 4+), secondary

Setting: river

Time required: 1 hr 30 min + travel

Availability: all year, but best in terms 1 and 4



5. River catchments and pollution

A school-based session, with students working together to create a bird's eye view of a complete river catchment using ropes and laminated pictures. Students learn about the interconnected nature of river systems, and how activities in various parts of the catchment can affect water quality downstream. They learn about the different things that can pollute rivers, and what they can do to help.

Logistics

Location: school

Cost: free

Age: primary (year 4+), secondary

Setting: hall or large classroom

Time required: 1 hr - 1 hr 30 min

Availability: all year

6. Writers' Walk challenge

Students write and submit their water poems for the Taylor River Writers' Walk.

Logistics

Location: classroom

Cost: free

Age: primary, secondary

Setting: classroom, Taylor River

Time required: varies

Availability: all year



MARLBOROUGH DISTRICT COUNCIL WATER AND WASTE TREATMENT

Project summary

The MDC offers the following resources and sessions to support teachers and students in learning about drinking water and waste water treatment in the region. Find out more by contacting Annie McDonald at annie.mcdonald@marlborough.govt.nz, or on the MDC website: www.marlborough.govt.nz/environment/environmental-education/school-education-programmes

Education programmes

1. Marlborough's Water Booklet

Downloadable from the MDC website, this brochure gives information about Marlborough's water:

- where our drinking water comes from and how it is 'treated'
- the different values we place on water
- how our water is allocated and used
- where water goes when we have finished with it
- how we take care of our water.

2. Visits to the water treatment and wastewater treatment plants

We can help you arrange school trips to Marlborough's water treatment and waste water treatment plants with our engineers.

Logistics

Location: water treatment plant; waste water treatment plant

Cost: free

Age: primary, secondary

Setting: working water treatment plants, indoors and outdoors

Time required: 1 - 1 hr 30 min

Availability: on request www.marlborough.govt.nz/environment/environmental-education/school-education-programmes/marlboroughs-water



Photo: Marlborough District Council



Photo: Marlborough District Council

MARLBOROUGH DISTRICT COUNCIL WASTE MINIMISATION

Project summary

The MDC offers the following resources and sessions to support teachers and students in learning about waste minimisation.

Education programmes

1. Waste kit

A waste resource adapted to Marlborough, containing information and activities about how we deal with waste. Includes sections on:

- reducing, reusing and recycling
- landfills
- green waste and composting
- e-waste
- hazardous waste
- packaging, litter and marine debris
- origins of waste.

The resource is free to download from the MDC website.

2. Visits to Marlborough's waste facilities

We can arrange guided visits to the transfer station, compost operation and resource recovery centre. Senior students may be able to visit the landfill at certain times of year.

Logistics

Location: transfer station; compost facility; resource recovery centre; Marlborough landfill

Cost: free

Age: primary, secondary

Setting: working waste facilities; outdoor

Time required: varies

Availability: on request

3. Organic waste options

Since schools tend to have lots of organic waste from lunch boxes, we can help you establish sustainable systems to deal with it. We can supply a worm farm (along with our curriculum-based resource 'Wise Up on Worms') or an EM Bokashi system, as long as schools are willing to take part in some learning about these systems, and if they meet some conditions to ensure the systems are successful in the longer term.

Logistics

Location: school

Cost: free

Age: primary, secondary

Setting: outdoor space

Time required: varies

Availability: all year, on request

Further information: www.marlborough.govt.nz/environment/environmental-education/school-education-programmes/waste-minimisation

Find out more
by contacting Annie McDonald
at annie.mcdonald@marlborough.govt.nz



MARLBOROUGH FALCON CONSERVATION TRUST

Project summary

The Marlborough Falcon Conservation Trust is devoted to promoting the survival of the kārearea/
New Zealand falcon, our last remaining endemic bird of prey.

We aim to:

1. increase awareness and enthusiasm for kārearea through our education and advocacy programme
2. rehabilitate sick and injured kārearea, and breed its chicks for release in the wild
3. lessen dangers to kārearea, such as electrocution, shooting and predation.

Education programmes

The education and advocacy programme aims to increase awareness and appreciation of the kārearea while realising the importance of protecting all our native species.

1. Classroom visit

We offer a 45-min classroom-based visit to Year 5 and 6 students within the Marlborough region. Our interactive lesson includes a PowerPoint presentation and a visit from a handler with a live kārearea. Students will meet our advocacy kārearea up close and even feed her lunch!

Students will learn key kārearea facts and their importance within Māori culture, the dangers kārearea face in the wild and how the students can help increase the kārearea population. Pre-visit activities are provided, and students receive an educational booklet.

We guarantee students will find the programme stimulating and educational. Students will remember seeing a live kārearea for a lifetime!

Logistics

Location: at school

Cost: none

Age: years 5 and 6

Setting: at school

Time required: 45 min

Availability: terms 2 and 3

Further information:

Contact Lizzie Mcfarlane at marlboroughfalcontrast@gmail.com or visit mfct.org.nz

2. Flying display

The kārearea is one of the fastest animals on Earth, and the sight of one swooping down from the sky is exhilarating. Groups are welcome to witness this (by arrangement) in the flying display area at Brancott Estate. School groups often undertake projects on kārearea before they visit so they can share their knowledge during the display.

Logistics

Location: Brancott Estate, Brancott Road, Marlborough

Cost: donations welcome

Age: any

Setting: beside vineyard

Time required: 45 min, plus transport to and from the site

Availability: terms 2 and 3

Further information:

Contact Lizzie Mcfarlane at marlboroughfalcontrast@gmail.com or visit mfct.org.nz

MARLBOROUGH SOUNDS WILDLIFE RECOVERY TRUST

Project summary

The Marlborough Sounds Wildlife Recovery Trust (MSWRT) is a charitable entity incorporated in 2009, established to provide guidance and funding to environmental conservation projects in the Marlborough Sounds. As part of its sponsorship agreement, the MSWRT took over governance of the ongoing rehabilitation and conservation projects at Lochmara Lodge in Queen Charlotte Sound/Tōtaranui. The Trust partners with community organisations on long-term projects for education, recovery, protection and enhancement of the native Marlborough Sounds.

Education programmes

In partnership with Conservation Kids NZ, the Environmental Education Programme at Lochmara connects students with the Marlborough Sounds environment, raising awareness and inspiring them to take action!

1. The Reef Tour

The 1 hr 30 min guided Reef Tour includes the underwater observatory, seaside touch tank, stingray feeding and one additional marine module (Stingray Scientist, Amazing Adaptations or Creative Connectivity). Once the tour is complete, students can take one of the many nature trails at Lochmara where they can explore and enhance their learning experience.

Logistics

Location: Lochmara Lodge, Queen Charlotte Sound
Cost: \$27.50 per person (includes return transport from Picton, access to nature trails and guided marine tour)
Age: all ages
Setting: on land and sea in Queen Charlotte Sound
Time required: half or full day
Availability: mid-Feb to early Dec
Further information: www.lochmara.co.nz or enquiries@lochmaralodge.co.nz

2. The Conservation Tour

This land-based 1 hr guided tour focuses on flora, fauna and sustainability. Highlights include hand-feeding the native red-crowned kākārīki and meeting New Zealand's threatened eel species.

Logistics

Location: Lochmara Lodge, Queen Charlotte Sound
Cost: \$25 per person (includes return transport from Picton, access to nature trails and guided conservation tour)
Age: all ages
Setting: on land and sea in Queen Charlotte Sound
Time required: half or full day
Availability: mid-Feb – early Dec
Further information: www.lochmara.co.nz or enquiries@lochmaralodge.co.nz

3. Explore Lochmara

Enjoy a mini cruise of Queen Charlotte Sound and explore Lochmara at your leisure. Discover the numerous nature trails and meet a variety of New Zealand species.

Logistics

Location: Lochmara Lodge, Queen Charlotte Sound
Cost: \$20 per person (includes return transport from Picton and access to nature trails)
Age: all ages
Setting: on land and sea in Queen Charlotte Sound
Time required: half or full day
Availability: mid-Feb – early Dec
Further information: www.lochmara.co.nz or enquiries@lochmaralodge.co.nz

MISTLETOE BAY ECO VILLAGE

Project summary

Mistletoe Bay Trust is a not for profit charitable organisation. The Eco Village offers a sustainable facility for day trips or overnight camps. This facility has a focus on environmental education where students can learn 'hands-on' how to live sustainably within in a coastal ecosystem. Sustainability and conservation practices at Mistletoe Bay include energy conservation, water conservation and waste management. It is an ideal base to learn about the bush and marine environments.

Mistletoe Bay Trust educational programme aims to:

- promote conservation through hands-on adventure and practical education
- practice sustainable living in a place where it clearly makes a difference
- foster learning by leaving only footprints and taking only memories.

Education programmes

1. The Mistletoe Experience

The Mistletoe Experience includes a sustainability tour, sailing, kayaking, fishing, tramping, camping, beach/stream/pond study, native planting, maintaining vegetable gardens (Eat-Fit Program) and enjoying the native bush and bay. Contact the camp managers to discuss how Mistletoe Bay can fit into your learning requirements. For overnight trips, schools have the option of two different accommodation options, where (cabins) or camping.

Logistics

Location: Mistletoe Bay Eco Village and surrounding reserves

Cost: accommodation \$10–20

Age: primary to secondary

Setting: bush and marine

Time required: day trip or multi-day

Availability: all year

Further information:

www.mistletoebay.co.nz/zones/schools

2. Marine studies with NZ Marine Studies Centre

Mistletoe Bay is a perfect setting to host Richard de Hamel's marine programme. See the [NZ Marine Studies Centre](#) page for further details.



Photo: Mistletoe Bay Eco Village

NEW ZEALAND MARINE STUDIES CENTRE

Project summary

Our educator in the Nelson/Marlborough/Tasman region is Richard de Hamel. He is very experienced and has a wide background in biological sciences. He is creative, humorous, and specialises in hands-on learning experiences often using games, puppets and dress-up activities to add an element of fun to his sessions. Richard often calls it 'education by subterfuge'.

Education programmes

1. Primary programmes

All our primary programmes are experiential. Programmes can be adapted to the needs of the class, situation, interests and topic. They cover a wide variety of topics including food chains, adaptations, Māori fishing methods and technology, beach studies, albatross and flight, fishing and sustainability and the famous Pirate programme! Some of the programmes are based on boats like the 'Voyage of Discovery', others attempt to get children to fly – like an albatross!

www.otago.ac.nz/marine-studies/learning/nelson/otago062216.html

2. Secondary programmes

Shoreline transects for level 2 and comparative dissection/anatomy sessions fit well at any level. At lower levels there are many options, from shark studies to learning about food chains.

www.otago.ac.nz/marine-studies/learning/nelson/otago062220.html

3. Tailored programmes and special events

There are often special events like Seaweek or Conservation Week that may have a 'limited time' programme. School camps may have an interest in shore studies and combine this with a boat trip to see what happens further out in the ocean. There is also an entertaining and interactive, evening programme available for school camps. This programme works well at Momorangi or Mistletoe campgrounds.

www.otago.ac.nz/marine-studies/learning/nelson/otago062409.html

Logistics (1-3)

Location: various, see programme links

Cost: \$4 per student, \$200 transport levy (+ GST)

Age: all ages

Setting: various, see programme links

Time required: various, see programme links

Availability: all year, bookings required

Further information: Richard de Hamel; ph 021 4 62326; email richard.dehamel@otago.ac.nz

4. Voyage of Discovery with Steadfast

The Voyage of Discovery programme is conducted in partnership with Steadfast Traditional Sail. This programme is being offered from Picton, or as part of a school camp experience at Mistletoe Bay Eco Village in Queen Charlotte Sound. Richard brings his considerable knowledge and experience in marine biology to great effect (as well as being a pirate!) with a programme that involves up to 28 children rotating through 7 activity stations on board *Steadfast* at sea. Activities include old-time navigation methods like heaving the lead line, trailing a ship's log, steering and dead-reckoning navigation, as well as an underwater video trolley (for finding out what's down there) and a plankton net and microscope (for getting a close-up view of the little critters). Check out our Voyage of Discovery video.

Logistics

Location: Picton or Mistletoe Bay Eco Village

Cost: boat cost is \$700 (= \$25 per student for 28 students and 5 free adults); \$4 per student for educator (+ GST)

Age: years 4 to 10, level 3 to 5

Setting: on a 58 ft traditionally built cutter

Time required: approx. 5 hours

Availability: all year, bookings required

Further information: www.steadfastsail.co.nz/schools/



PELORUS BAT RECOVERY PROJECT (FOREST AND BIRD)

Project summary

The Bat Recovery Project runs a predator trapping programme at Pelorus Bridge Scenic Reserve to protect one of the few remaining populations of critically endangered long-tailed bats in the top of the South Island. The project is managed by Forest and Bird and achieves most of its work through dedicated community volunteers who regularly check a network of rat, stoat and possum traps.

Education programme

This resource will provide students with the opportunity to view long-tailed bats on the wing at twilight as they forage for aerial insects in their native forest habitat. Students will use bat detectors to 'translate' the echolocation calls of bats to audible sounds.

This activity is ideal for groups studying native wildlife, forest habitats, and conservation topics. The resource can be used as an evening activity while staying at Pelorus Bridge Scenic Reserve, and fits in with the wider education resource www.doc.govt.nz/pelorus-bridge-teaching-resource.

Long-tailed bat viewing

The programme involves a teacher-led field trip to Pelorus Bridge Scenic Reserve to view bats in their natural habitat. The Bat Recovery Project has automated bat detectors that are available for hire from Pelorus café. A self-guided bat walk brochure is being developed to direct groups to hotspots for bat activity in the reserve. With the aid of bat detectors, groups can 'tune in' to bats flying overhead and view them as they forage on the wing for insects. The brochure will also highlight aspects of the ecology of New Zealand bats.

This activity is best combined with initial enquiry-based lessons in the classroom, reinforced with

follow-up discussions post-field trip, and provides opportunities to discuss a broad range of topics e.g. science and technology, threats, conservation and extinction processes. Note that this activity is restricted to fine evenings during warmer months (October–March) when bats are most active.

To get started on bat-related topics in the classroom, have a look at the Starters and Strategies teaching resource all about bats called *Discovering pekapeka – New Zealand's native bats* at www.starters.co.nz and type bats in the search field at the top right of the page.

Logistics

Location: Pelorus Bridge Scenic Reserve, Marlborough

Cost: gold coin donation for each bat detector hired

Age: any children who are old enough to be outdoors away from home in the evening.

Setting: original podocarp-broadleaf forest

Time required: approx. 1 hour starting at dusk

Availability: self-guided. Pre-arrange detector collection with Bat Recovery Project Manager if you will be arriving at the reserve after 5 pm.

Further information: Bat Recovery Project Manager g.dennis@forestandbird.org.nz



PICTON DAWN CHORUS

Project summary

Picton Dawn Chorus aims to make more than 2,000 ha in and around Picton predator-free, using non-toxic trapping methods.

Education programmes

We take students with us to check trap lines. They learn about traps and identifying pest species, and may be involved with pest monitoring using chew cards, and bird monitoring using bird counts. We can help with school programmes around making traps, monitoring traps and looking at catch data from trapping in gardens.

1. Trapping in action

Take a walk along a trap line to learn about the traps used in pest control. Learn how to rebait and set a trap, identify pest species (mice, rats, possums, mustelids), and gain general bush knowledge while out walking (identifying some birds, plants and trees etc).

Logistics

Location: Victoria Domain

Cost: none

Age: 5+

Setting: bush area, without facilities

Time required: 1 hr

Availability: flexible

Further information:

Call 021 BIRDS12 (021 247 3712) or email admin@pictondawnchorus.nz



Photo: Picton Dawn Chorus

2. Make your own trap

Making simple traps that children can take home and set in their own garden. They then take the responsibility of maintaining the trap and tracking catches.

Logistics

Location: at school and at home

Cost: materials

Age: 10+

Setting: at school and at home

Time required: 1 hr plus some follow-up time

Availability: flexible

Further information:

Call 021 BIRDS12 (021 247 3712) or email admin@pictondawnchorus.nz



Impacts	Climate Karanga Marlborough	Conservation Kids NZ	DOC: Experience Momorangi	DOC: Mill Flat	EcoWorld Trust	Kaipupu Point Wildlife Sanctuary	Koru Native Wildlife Centre	MDC: Freshwater education	MDC: Waste minimisation	MDC: Water and waste treatment	Marlborough Sounds Wildlife Recovery Trust	Mistletoe Bay Eco Village	NZ Marine Studies Centre	Pelorus Bat Recovery Project	Picton Dawn Chorus
Pests		S	P	P	S	P	P	S			S	S		P	
Weeds															
Pollution	S	P	P	P	S			P	P		S	S	S		
Climate	P				S										
Conservation techniques															
Restoration		S	S	S		P					P			S	P
Captive rearing		S													
Species															
Birds		P	P	P	P	P	P	P			P	P			P
Insects		P	P	P	P	P	P	P	S		P	P			
Reptiles		P			S										
Marine mammals		P									S	P			
Marine species		P	P	P							P				
Freshwater species		P	P	P	S			P					P		
Habitats															
Wetlands								S							
Forests		P	P	P	S						S				P
Marine/coastal		P	P	P	P										
Freshwater		S	P	S	P			P			S		P		
Practical learning															
Planting		S				P								S	
Trappings/tracking		S		P		P					S				P
Weed control						P									
Development										P					
Leadership		P										S			
Kaitiakianga		S			S					P					

P = primary focus, S = secondary focus

Index: Focuses and strengths of the community conservation groups

