Learning outside the school

Learning Experiences Outside the Classroom (LEOTC) is a Ministry scheme that presents teachers with an opportunity to link in-class learning with real-life contexts and experiences. Over the next pages, KATE TRINGHAM looks at three community organisations providing learning experiences in an authentic context that enhance and enrich the New Zealand school curriculum



Educator Steve Cutler describes kina to students at the New Zealand Marine Studies Centre.

Photo: Philippa Crick.

Curiosity fuel

Schools find education benefits in examining the marine world

ally Carson vividly remembers one of her first experiences taking a group of students through an educational programme at the New Zealand Marine Studies Centre in Portobello, Otago.

"I remember taking the group down to the shore, and we found these little white eggs. I had no idea what they were so we collected a sample and took them back to the teaching lab and put them under the microscope, where they hatched in front of our eyes," she recalls.

"They looked like little octopus, so we brought in a scientist who got some reference material, and we identified them together. They were cuttlefish, and the

kids were so excited to be part of this process of discovery that was happening before their eyes."

The memory perfectly illustrates why Sally, the director of the centre run by the Department of Marine Science at the University of Otago, believes it is so important for school children to have learning experiences outside the classroom.

"What we're doing is creating situations that you can't recreate in the classroom."

The Marine Studies Centre is situated on the Otago Peninsula, and includes research and teaching laboratories, an aquarium, and access to a variety of marine habitats.

The centre's programmes focus on aspects of the curriculum in negotiation with the teacher, and cater for all primary and secondary levels.

The junior programme "Creature Features," for example, addresses levels 1-3 of the Living World, with children considering how easily identifiable features help animals survive in their environment.



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COVER SHOT: A Southern Potbelly seahorse at the New Zealand Marine Studies Centre on the Otago Peninsula. As the name suggests, the ample, protruding stomach of this seahorse sets it apart from its typically flat-bellied cousins. Once known as a giant species, the Southern Potbelly grows up to 30-35cm long – the size of a school ruler. Seahorses are famous for the fact that the male carries the young in a pouch on his belly until they hatch.

"What we're doing is creating situations that you can't recreate in the classroom."

The centre's educator Steve Cutler says programme flexibility means teachers can request that the emphasis be tailored to their needs.

"When I explain the "Creature Feature" programme they might say 'Great, and we've got a boy who is mad about sharks, can you include sharks?' Another might want invertebrates - and we can tailor the programme to include those things."

When it comes to senior secondary school classes the centre assists and delivers programmes that meet assessment requirements for NCEA.

The popular Year 13 senior biology programme, for example, looks at developing students' skills as scientists in a three-day programme aimed at meeting an achievement standard, related to carrying out an investigation into the ecological niche of an animal.

LEOTC providers often find it difficult to entice secondary school students out of the classroom, but this particular programme is seen as so worthwhile that teachers and students are even willing to give up a day out of the weekend to make up the three days. During the programme, students study a particular animal and its habitat in relation to others, pose questions and hypotheses, design an experiment, carry it out and verify results.

Chris Gold, a Year 13 biology teacher at St Hilda's Collegiate in Dunedin, has taken students out of school for the programme for the past two years.

"It is a concentrated period of time where we can access marine facilities, equipment and expertise we don't have at school, and as such we are better able to meet the requirements of the standard in terms of authenticity."

Students are able to control variables more effectively because of on-site marine tanks and environmental monitoring equipment.

Steve says it is vital students have such experiences of the "real world".

"You can have as much book learning and search the computer for as much information as you like, but all that information is derived from the real world, and I think kids



Sally Carson, programme director at the Marine Studies Centre.

can appreciate that," he says.

He adds that the experiences definitely create future scientists.

During 23 years as a teacher in South Canterbury, he has had a number of students sufficiently inspired by their visits to the centre to go on to university to study marine science.

"There was a wee bloke here the other day, nine years old, just full of questions, and when he left he said 'oh, I'm going to study the sea, I'm going to study the sea!' and you just can't get that from a classroom."

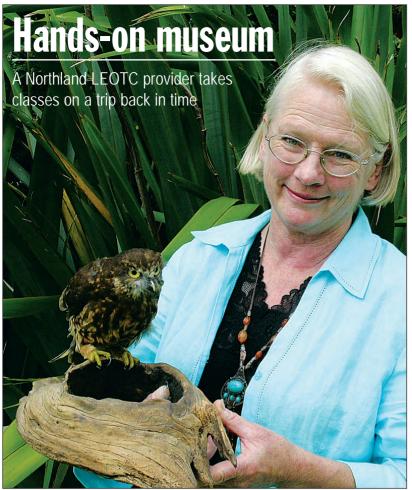
The LEOTC programme

Since 1994 the Ministry of Education has run a contestable annual tender round for the purchase of Learning Outside the Classroom (LEOTC) services on behalf of schools. The 67 LEOTC-contracted providers range from science centres to art galleries and between them cover a variety of cross-curricular programmes. The programme targets 350,000 students a year, but often reaches closer to 500,000.

The purpose of LEOTC is to provide learning experiences that:

- provide opportunities for contextualisation and transfer of learning
- · are hands-on and interactive.
- Enhance and enrich the curriculum in keeping with the New Zealand Curriculum Framework (NZCF)
- Complement students' inschool learning by providing experiences that could not be made available in the immediate school environment.





leanette Rummery

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eannette Rummery offers a whole new take on the standard trip to the museum, thanks to the huge range of opportunities provided by her location.

Within the 25-plus hectare park occupied by the Whangarei Museum and Heritage Park lie a museum, vintage trains, a 120-year old house and school, and numerous clubs.

"I'm extremely lucky because we have such a diverse place here, so we can just go for it," she says.

Jeannette runs a variety of programmes, which are all "very much hands on and absolutely curriculum-linked."

The most popular programme is based on the time, continuity and change part of the social studies curriculum where children experience life in their great-grandparents'

"We take the children up to the old school and get them all dressed up in old-fashioned clothes, and they go into the school set up exactly as it was set up 100 years ago," she says.

"I march in, role playing a teacher of the time, all strict and grumpy which is quite mind blowing for the kids, and we take them through a day's lessons complete with fingernail inspection, handwriting and speech training."

The children write on slates and with dip pens, and are also shown the old straps, canes and dunce caps that ultimately lead to the conclusion that school wasn't much fun in the old days.

In the afternoon, the programme sees children taken into the old homestead, restored to the state it would have been in 120 years ago. There they try their hand at washing with wash boards, wheeling in wood for the fire, mowing the lawns with old mowers, churning butter and baking bread in camp ovens.

Jeannette also makes use of the native bush at the park and offers several different science programmes.

The museum houses an extensive insect collection, and the curator has also set one up specifically for Jeannette's teaching. After an initial insect study, she takes students into the native forest to see what can be found.

"There is everything there from giant centipedes to native worms, and it is absolutely awesome for the children, because our city children don't get the chance to go into the bush and do things like this."

While the curriculum areas are fairly defined, Jeannette modifies the programmes to cater to the particular needs of each teacher and their class.

A Christian school may ask that language is adjusted around old religious themes - Sunday becomes the Sabbath, for example. And with Sunday being a day of rest, the activities might centre around what needs to be achieved in the days before Sunday so that a family can rest on that day.

Another school recently requested that an early settler activity in the bush be developed into a school camp activity.

"The children role play early settlers and we put them into groups and send them into the bush as if they have just arrived at their new land. They end up having to build a shelter with the purpose of actually sleeping in it until 9pm, which makes the whole thing real."

Jeannette cannot emphasise enough the importance of getting children to experience things for themselves.

"You can talk until you are blue in the face to children, but if they do things they remember so much more."

Jeannette sees her role as showing children what a "big, wide, fabulous interesting world" there is out there.

"Whether it's the world we lived in in the olden days or the world we live in now, if those children go away with their eyes wide open and buzzing at the end of the day then I've achieved what I set out to do."

And all kinds of school projects have emerged as a result of experiences had at the park.

"I had feedback from one particular school where children went absolutely crazy on insects and started planting things at the school that would attract them and where they could hide, and apparently that has been an ongoing thing, and that's just awesome."

Opening minds

Schools are a key focus for Lower Hutt's art gallery, The Dowse

s learning programmes manager at The Dowse, Sarah Bourke makes it a key priority to align the exhibition programme to fit in with the school

"We try to avoid really relevant exhibitions such as a recycling show happening in the school holidays and we try to spread things out so that all the exhibitions that are going to be ideal for schools are not in term one."

Sarah says a teaching background is important for her job, because she needs to be able to judge which curriculum area each exhibition best suits and what achievement objectives might be covered.

Being a teacher herself means Sarah also understands that the more information she can give teachers when they are planning their year, the better.

"I try to give them a general idea of what the programme will be when they are planning in November and starting to think about how they can include activities to complement the topics, and then I spell it out clearly in January."

Often a teacher will send Sarah a unit plan, and she is able to work from that.

From a general programme, Sarah can slot things in and adapt activities to make it suitable for different age groups.

She cites a recent exhibition of young New Zealand entrepreneurial companies, titled "The New Cool", as an example. Intermediate groups studying logos and promotion looked at creative thinking and inventing new brands, while for secondary school technology classes Sarah brought in some of the people from the companies covered by the exhibition.

"One of the young women featured in the exhibition had been a student at Taita College, and another came from Naenae College. The commerce teacher at Naenae brought her Year 13 students in, and it was really powerful to involve the community in such a way," she says.

"We were able to say - here is someone who went to school in your neighbourhood, and look at them now. It's good role modelling and having them there brings the exhibition alive. This is a real person, not just a picture."

Benefits extend far beyond the gallery outing.

"In one case, with "The New Cool" exhibition I heard the teacher from one of the schools in the Hutt having a conversation with a boy who was really into screen printing his t-shirts, and selling them at school.

"She was saying Till buy you the t-shirts and you can set up a bank account' - they were having the conversation about him extending his hobby, his passion, which was just great."

When children come in to do art workshops, Sarah encourages them to bring their families back in the weekend.

"We have lots of anecdotal evidence of the children coming back with their families and telling them all about the things they have learned."

Hutt Central School classes are keen regulars at The Dowse.

Teacher Alison Butler says she takes her class every term if possible.

"It's getting students to see real art work, so it covers that whole art history/visual arts aspect of the curriculum. Sarah does a fantastic job of pitching loads of activities at the right level and we take our kids



Sarah Bourke

right through from new entrants to year six because there is something for everybody."

Most importantly, the materials and artwork always provide something "a little bit different" that teachers might not think of at school, or have the resources for.

"And we can get a week's worth of follow-up work out of the activities, maybe more."

Because the children have been going to exhibitions so regularly, they gain indepth knowledge and a fantastic insight into looking at artwork, Alison says.

Wellington High School technology teacher Kylie Merrick is also a firm believer in taking up the opportunities provided by LEOTC programmes.

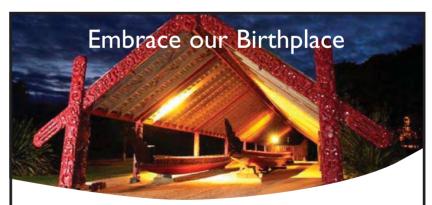
"Some of these students don't actually go to places like that with their families, and their experiences are quite limited," he says.

"I've got some students who have never been to Te Papa and that's a huge statement. I feel quite strongly that these experiences broaden everything and give them new thinking."

Related web link

Information about LEOTC providers in your region can be found on the Ministry of Education's TKI website:

http://www.tki.org.nz/r/eotc/leotc/provider_summary_05.doc



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