

# Science Extension and Enrichment 2020



## Background

Over the past 14 years, the Science Extension and Enrichment Programmes at the New Zealand Marine Studies Centre have gained a growing reputation for delivering authentic, real-world learning experiences that are enriching and enhancing for gifted students.

Students tell us these programmes are the greatest experiences of their lives. Parents are enthused by their children returning home motivated from their experiences, their research and the friends they have made. The programmes also provide valuable professional learning and development for teachers. They tell us that observing and sharing the experience is fascinating and strengthens their understanding of the nature of science and links to current scientific knowledge.

## Why Marine Science?

There are a number of clear reasons why all citizens of Aotearoa need to have an in-depth experience and understanding of the marine world. The ocean is a vital part of our identity and culture, and provides us with over half of the oxygen we breathe. We have one of the longest coastlines and largest exclusive economic zones in the world, with many marine taonga right at our doorstep. Our ocean also provides for our economy through aquaculture, fisheries and marine eco-tourism. The challenges we face through climate change and pollution, mean it is vital that we gain knowledge and understanding, and we are able to act as kaitiaki for our marine environment for the future well-being of our planet.

## Programme Plans 2020

In 2020 we will be offering eight science extension programmes, including five residential programmes, open to students from schools in Southern NZ. Supervised and directed by our educators, these residential programmes involve in-depth and wide-ranging field and laboratory experiences, as well as mentoring by post-graduate research students in a supportive and friendly environment. Like minds living and working together develop an enriching, knowledge-building community.

### Costs:

The programme in 2020 is offered at a reduced cost of \$10/day per participant, thanks to Ministry of Education funding for gifted learners. Residential programmes include accommodation and boat transfers to Quarantine Island. Schools will be invoiced after the student selection process is complete, and it will be up to schools to determine the allocation of those costs.

### Selection process:

Due to limited capacity, allocation of places on these programmes will involve a selection process. Although some priority may be given to schools who have shown particular interest in the past, we are keen to attract new schools' involvement. Each school is expected to use at least three identification criteria to determine up to three applicants to commit fully to the relevant programme (please visit [gifted.tki.org.nz](http://gifted.tki.org.nz) for information on identifying giftedness).

### Application process:

Programme details and application forms are available on our website: [marine.ac.nz](http://marine.ac.nz)  
Go to "Learn with us" and click on "Science Extension" for further information.  
Email applications to [portobello.marinescience@otago.ac.nz](mailto:portobello.marinescience@otago.ac.nz)  
Applications can also be posted in the mail to PO Box 8, Portobello, Dunedin 9048, but time should be given for this to reach us by the deadlines outlined.

# Science Extension and Enrichment Programmes 2020

## Terms 1 and 2

### Year 10 Programmes

#### Making sense of the marine world

Open to Year 10 students who are able and enthusiastic about science, and/or gifted (not necessarily in the sciences). Programmes 1 and 2 are both residential.

Schools are offered places in either Programme 1 or Programme 2

- **Programme 1** (predominantly Otago, Canterbury, Westland, Nelson/Marlborough)

Applications close 27 March 2020

8 days | Wednesday 22 April to Friday 24 April  
Thursday 21 May to Saturday 23 May  
Friday 19 and Saturday 20 June

Maximum 25 students (up to 3 students per school)  
Programme cost in 2020: \$80 (\$92 inc. gst) per participant

- **Programme 2** (predominantly Otago, Westland, Southland)

Applications close 27 March 2020

8 days | Thursday 7 May to Saturday 9 May  
Friday 5 June to Sunday 7 June  
Friday 26 June and Saturday 27 June

Maximum 25 students (up to 3 students per school)  
Programme cost in 2020: \$80 (\$92 inc. gst) per participant

### Year 11 and 12 Programme

#### Deep thought expedition

Applications close 29 May 2020

Open to Year 11 and 12 students who are able and enthusiastic about science, and/or are gifted (not necessarily in the sciences). This programme is an ideal extension for those that have participated in the Year 10 programme "Making Sense of the Marine World". This is a residential programme.

5 days | Tuesday 30 June to Saturday 4 July

Maximum 25 students (up to 3 students per school)  
Programme cost in 2020: \$50 (\$57.50 inc. gst) per participant

# Terms 3 and 4

## Year 9 Programme

### Te Ara Wai Ki Te Oranga

Applications close 11 September 2020

Open to Year 9 Māori students (in the Dunedin area) who are able and enthusiastic about science, and/or are gifted – not necessarily in the sciences (e.g. have strong leadership and social skills, cultural specific abilities, sporting and/or creative skills).

This programme is supported by three University of Otago departments/schools: Health Sciences (Te Tangata), Sport and Exercise Sciences (Te he Māoriora) and Marine Science (Te Taonga Moana). This is not a residential programme.

5 days | Friday 16, 23, 30 October and 6, 13 November

Maximum 25 students (up to 3 students per school)

Programme cost in 2020: \$50 (\$57.50 inc. gst) per participant

## Year 10 Programme

### Te Rauawa O Te Pahī

Applications close 29 May 2020

Open to Year 10 Māori students who are able and enthusiastic about science, and/or are gifted – not necessarily in the sciences (e.g. have strong leadership and social skills, cultural specific abilities, sporting and/or creative skills). This programme is an ideal extension for those that have participated in the Year 9 programme “Te Ara Wai ki te Oranga”. This is a residential programme.

6 days | Monday 6 July to Wednesday 8 July  
Thursday 23 July to Saturday 25 July

Maximum 25 students (up to 3 students per school)

Programme cost in 2020: \$60 (\$69 inc. gst) per participant

## Year 11 and 12 Programme

### Rangitahi O Te Moana

Applications close 29th May 2020

Open to Year 11 and 12 students who are able and enthusiastic about science, and/or are gifted – not necessarily in the sciences (e.g. have strong leadership and social skills, cultural specific abilities, sporting and/or creative skills). This programme is an ideal extension for those that have participated in the Year 10 programme “Te Rauawa o te Pahī”. This is a residential programme.

5 days | Tuesday 28 July to Saturday 1 August

Maximum 25 students (up to 3 students per school)

Programme cost in 2020: \$50 (\$57.50 inc. gst) per participant

# Primary Programmes

## Year 6, 7 and 8 Programmes

### Science and the sea

Applications close 7 August 2020

Open to Year 6, 7 and 8 students (in the Dunedin Area), who are able and enthusiastic about science, and/or gifted – not necessarily in the sciences (e.g. have strong leadership and social skills, cultural specific abilities, sporting and/or creative skills). This is not a residential programme.

4 days | Thursday 3, 10, 17, 24 September

Maximum 25 students {up to 3 students per school}  
Programme cost in 2020: \$40 (\$46 inc. gst) per participant

### Mapu Kimi-Ara Pasifika

Applications close 11 September 2020

Open to Year 6, 7 and 8 Pasifika students (in the Dunedin Area), who are able and enthusiastic about science, and/or gifted – not necessarily in the sciences (e.g. have strong leadership and social skills, cultural specific abilities, sporting and/or creative skills). This is not a residential programme.

4 days | Thursday 22, 29 October and 5, 12 November

Maximum 25 students (up to 3 students per school)  
Programme cost in 2020: \$40 (\$46 inc. gst) per participant

## Customised Programmes

We are now also accepting 2020 bookings for requested customised science enrichment programmes from individual schools and clusters (1, 2 or 3 days). Examples of customised programmes below:

### Year 10 programme

#### Making Sense of the Marine World Aids Survival and Enriches Lives

Introduction to key abiotic parameters of the marine world via senses and instruments. Exploring field data gathering, boat-based and shore-based. Nature of teams, nature of science, higher order thinking in experimental design and practice, critique and communication. (1, 2 or 3 days)

### Year 7 and 8 programme

#### Sedimental Science

Sediment as a topical concern for coastal marine ecosystems – systems approach. Field and lab measurements and interpretation. Science skills and tools; team research challenge. (1 or 2 days)

### Year 9 to 12 programme

#### The 'Litmus' test

Exploration and enquiry into climate change in a marine world with particular focus on ocean acidification. (1 or 2 days)

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For further information or any queries please contact:  
NZ Marine Studies Centre  
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