# Programme Outline

**BOOKINGS:**
Email: marine.studies@otago.ac.nz  
Phone: 03 479 5826

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<table>
<thead>
<tr>
<th>Mighty Molluscs</th>
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<td><strong>LOCATION:</strong></td>
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## PROGRAMME DESCRIPTION:
What is a mollusc? Discover the characteristics that link snails, chitons, clams, octopus and more. What set of adaptations relate to their survival in particular niches? Classify molluscs, investigate how they feed and survey the intertidal zone to compare the distribution of the two chiton species.

This programme includes experiences in a laboratory, on the rocky shore and opportunities to interact with live animals.

**Extensions:** Conduct an experiment looking at chitons response to light.

## LEARNING OUTCOMES:
Students will
- Increase understanding of the relationship between niche and adaptation.
- Gain first hand experience of animal classification.
- Develop understanding of the relationship between morphology and functionality in the context of survival in a particular niche.

**Extras:**
- Gain a new or renewed appreciation of marine life and the marine environment.
- Gain a new appreciation of marine science as a possible field of study or a future career.

## YEAR/LEVEL:
Years 9-10, level 5-6

## CURRICULUM LINKS:
**Nature of Science (NoS):** level 5-6 understanding, investigating.  
**Science:** Living World: level 5-6, Life Processes, Ecology, Evolution

## KEY COMPETENCIES:
Thinking, managing self, relating to others.

## PRE TRIP PREPARATION:
Some general understanding of the intertidal habitat, common molluscs and adaptations would be helpful.

## RESOURCES AVAILABLE TO SUPPORT PROGRAMME:
A student booklet with supporting worksheets is supplied with booking confirmation.
Shell Identification poster along with All about Shells posters are available upon request.
Class sets of Rocky shore and Sandy and Muddy Shore identification guides are available on application to the NZMSC.

## RELATED TOPICS:
Intertidal ecology, form and function, adaptation, food webs, classification, survival, animal behavior.

## PROGRAMME COSTS:
$10.00 per student (GST excl.)

## PROGRAMME LENGTH:
3 hours

## GROUP INFORMATION:
Groups of 15 or more are preferred up to a maximum of 60 students.
With 20 or more we divide the group up and rotate through activities.

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The NZ Marine Studies Centre is part of the Marine Science Department, University of Otago.  
This programme is supported by the Ministry of Education's LEOTC service.  
See [WWW.MARINE.AC.NZ](http://WWW.MARINE.AC.NZ) for more programmes and resources.
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SAFETY ACTION PLAN:
On beach: as per field operations
In Laboratory: as per Lab safety

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