Programme Outline

BOOKINGS: Email: marine.studies@otago.ac.nz
Phone: 03 4795826

NEW ZEALAND
MARINE STUDIES CENTRE
University of Otago

Biological Clocks

LOCATION:	New Zealand Marine Studies Centre, Portobello, Dunedin

PROGRAMME DESCRIPTION:

Investigate behavior of marine animals in response to environmental factors. How do we investigate rhythmicity in behaviour responses? Investigate patterns and observe examples of biological timing in marine animals. Students will collect data and interpret it in terms of running periods and circatidal cycles.

Support for NCEA Biology 3.4 AS 90716

Extensions:
Links well with Behaviour of Marine invertebrates programme

Can be combined with a two hour programme looking at sea bird behavior at the Royal Albatross Centre.
Email: education@albatross.org.nz or Phone Chris McCormack at (03) 478 0499

LEARNING OUTCOMES:

- Students will describe and discuss animal behavior in relation to environmental factors.
- Students will design an experiment to investigate biological clocks in intertidal species.
- Students will gain experiences in analysing and interpreting data.

Extras:
Students will gain a new or renewed appreciation for marine life and the marine environment.
Students will gain an understanding of marine science as a possible field of study or a future career.

YEAR/LEVEL:	Year 13 level 8
CURRICULUM LINKS:	Living World:level 8, life processes, Ecology, Evolution. NCEA Biology 3.4 AS 90716 – This AS involved the description of animal behavior in relation to environmental factors.
KEY COMPETENCIES:	Thinking, Using language symbols and text, managing self. Nature of Science: understanding, investigating.

PRE TRIP PREPARATION: Teachers should share and unpack the Achievement standard requirements and assessment criteria with the students before coming. Some general background research on biological clocks may be helpful.

RESOURCES AVAILABLE TO SUPPORT PROGRAMME: A student booklet for photocopying is sent out with booking confirmation.

REALTED TOPICS	Small Animal Study, animal behaviour, Behaviour of Marine Species
PROGRAMME COSTS	$7 per student (GST excl.).
PROGRAMME LENGTH	2 hours
GROUP INFORMATION	We prefer groups of 15 students or more, but no more than 45.
SAFETY ACTION PLAN	On beach: as per field operations. Laboratory: as per lab safety
NZMSC CONTACT:	Hanna Ravn Email: hanna.ravn@otago.ac.nz Phone: 03 479 5843 Mobile: +64 27 614 1799