

Central Coast Marine Discovery Centre



High School Programs 2016

***NEW VIRTUAL EXCURSION ***

Temperate Marine Biodiversity Study: A Case Study of the Ex-HMAS Adelaide

Stage 5, Yr 9 – Science and Marine & Aquaculture Technology

Students will perform an in depth study of the biodiversity of the temperate marine ecosystem surrounding the Ex-HMAS Adelaide artificial reef **without leaving the classroom!** With the aid of Smartboard technology, your students will learn how scientists can study ocean biodiversity as well as how to ID fish, the history of the Ex-HMAS Adelaide, artificial reefs, differences between marine & terrestrial animals and much more as they view and analyse BRUVS (Baited Remote Underwater Video Stations) footage to investigate changes in biodiversity. **A pilot of this exciting new program is being offered in Term 1, 2016 – which allows 10 schools to book FREE OF CHARGE.** Excursion fees will be charged for bookings from Term 2, 2015. Please contact Kate on (02) 4349 4756 or email schools@ccmdc.org.au for more details on this great opportunity.

Interactions - Science

Stage 4

Students develop skills in using geographical instruments, mapwork and recording data as they investigate a local environment. Possible locations include Gosford Coastal Lagoons, Bateau Bay or Tuggerah Lakes.

Coastal Management - Geography

Stage 5

A case study of **Terrigal / Wamberal** in terms of coastal management. Students will carry out field work activities designed to gain an understanding of coastal beach processes. These include vegetation identification, beach profiles, measurement of abiotic factors and water quality monitoring. We will also look at how the area has changed through history and how decision makers are planning for the future.

Local Ecosystems - Biology

Stage 6, Yr 11

Students gather data using a range of scientific equipment to investigate the distribution, abundance and adaptations of living things on local rock platforms or in

estuaries. Students will measure physical factors of the ecosystem and undertake transect or quadrat surveys to identify distribution and abundance of biota present. Students will then investigate adaptations of living things to their environment.



The CCMDC is proudly supported by:

The University of Newcastle & The Community Environment Network



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Water for Living – Senior Science

Stage 6, Yr 11

Students undertake a study of the catchment of Wyong River. The day will involve travelling from the top of the catchment to the bottom – with stops on the way to investigate the water quality, habitat, water bugs and local issues. Workbook provided. Bus required for the whole day. This program includes a visit to Mangrove Dam.

**Schools need to organise bus for the full day*

Ecosystems at Risk - Geography

Stage 6, Yr 12

Avoca Lagoon is used as a case study to investigate the endangered Green and Gold Bell Frog. Students perform a kayak based survey of the lagoon including an investigation of water quality and how urban development impacts on endangered ecological communities. Students look specifically at human impacts.

**There will be an additional cost for the use of kayak.*

Marine & Aquaculture Technology

Stage 5

Programs for Marine & Aquaculture Technology are adapted to meet individual school requests, however, these programs may include the following:



Module 8: Rock Platforms

Students perform a firsthand investigation of life on a local rock platform & study the animals and plants present, their distribution, abundance & adaptations to the pressures of an intertidal environment. Students will measure physical

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Module 29: Fish Biology

Join Marine Discovery Centre Educators for a fish dissection and investigation of its external features and internal organs.

Excursions may also include a visit to the Marine Discovery Centre & studies of animals in our aquaria.



Anatomy & Physiology of Marine Organisms - Marine Studies

Stage 6

Fish Dissection program will be available from term 2, 2015. Please contact us to discuss how the Marine Discovery Centre may support other topics.

Science & Marine & Aquaculture Technology

Stage 5, yr 9 Science

Stage 5, yr 9 Marine & Aquaculture Technology

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For details of this program please see page 1.



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