What is Marine Science all about?

Marine Science is a practical science subject that lets you explore marine science concepts, systems and models in relevant contexts. These contexts will vary according to your school location and the resources available at your school.

You will look at marine issues and problems by investigating a range of marine environments. Through your investigations, you will come to see the importance of protecting marine environments and active stewardship of marine environments.

What will you learn?

As you study Marine Science, you will learn key concepts that relate to marine biology, oceanography, conservation and sustainability and marine research skills.

The key concepts of marine biology relate to the different organisms that live in marine environments and how they interact. The key concepts of oceanography relate to the cycling of water, nutrients and pollution through the world’s oceans and how this impacts on climate. Conservation and sustainability key concepts show the ways that human activities impact on marine environments and how negative impacts can be minimised. The key concepts of marine research skills show you how to safely conduct investigations as you explore marine environments from the shore or in the water.

How will you learn?

Marine Science uses an inquiry-based approach to learning, which lets you conduct investigations. You will formulate research questions, hypotheses and plans for investigation. Through your investigations, you may manipulate variables to see what effect they have on marine organisms or environments. You might observe the effects of naturally occurring variables to look for relationships, trends and patterns.

In Marine Science, you may collect primary data from the marine environments you are studying. You will spend at least 18 hours each year in marine environments, such as reefs, rocky shores and estuarine areas. You may use boats or snorkelling equipment to access the environments under study.

After you have collected data, you will analyse, interpret and evaluate your findings to draw and justify conclusions, and make and justify decisions and recommendations. Your decisions and
recommendations should consider conservation strategies that promote the sustainability of marine environments.

**How will you be assessed?**

Assessment in Marine Science lets you demonstrate your knowledge and understanding through investigating, analysing and evaluating marine information. You will have a chance to present this information to audiences through writing and speaking, or by combining modes for a presentation.

In Marine Science, assessment includes:

- extended response — responses to research or stimulus materials, such as an extended marine investigation report, field report, essay, article, speech or presentation
- examinations — extended response tests or short-response tests.

In Year 12, you will complete five to seven assessment responses, including at least one extended marine investigation or action research and at least one supervised extended response test.

**How can parents/carers help?**

Your parents/carers may help you by:

- discussing different views of current Marine Science issues with you
- encouraging and helping you find suitable websites, documentaries, journals and other resources
- encouraging you to take part in school-based activities, including field trips, and extracurricular activities
- offering their services as guest speakers if they are involved in this area of study or related industry
- encouraging safe and ethical behaviour
- contacting your school to establish communication with your teachers to help understand the work undertaken at senior level, and to become familiar with assessment requirements.

**Where can Marine Science take you?**

This subject contributes four credits towards the Queensland Certificate of Education (QCE). If you would like to learn more about this certificate, please visit the QCE page on the QCAA website [www.qcaa.qld.edu.au/589.html](http://www.qcaa.qld.edu.au/589.html).

A course of study in Marine Science can establish a basis for further education and employment in marine science, marine biology, nautical science, fisheries and aquaculture, conservation and resource management, and tourism, seafood and maritime industries.


**More information**

This subject guide relates to courses developed from the *Marine Science Senior Syllabus 2013*. If you would like more information, please visit the subject page on the QCAA website [www.qcaa.qld.edu.au/20319.html](http://www.qcaa.qld.edu.au/20319.html) or email [senior.syllabuses@qcaa.qld.edu.au](mailto:senior.syllabuses@qcaa.qld.edu.au).