



Snorkel Safari

PRE-VISIT INFORMATION FOR TEACHERS

Snorkel Safari is a wonderful program that gives students the chance to explore first hand the wonderful marine environment of the Sapphire Coast. The students will be given mask, snorkel and fins and taught proper snorkelling techniques including duck diving, finning and handling marine animals. They will also have the chance to do some underwater photography.

During this two hour program a Marine Education Officer will guide students through understanding snorkel equipment and how to use it, species identification and safe snorkelling practices. The program is designed for students in Years 7-12, and can be tailored to suit your curriculum needs.

It is important that teachers read and understand this pre-visit information and what is required for the delivery of the program.

Thank you.



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National
University

a proud sponsor of the Sapphire Coast Marine Discovery Centre

PRE-VISIT INFORMATION

Program duration	2 hour (approx. 1 hour in the water)
Program cost	\$20 per student (maximum of 10 students per session)
Bookings enquiries	T: 02 6496 1699 E: education@sapphirecoastdiscovery.com.au

What the school needs to do prior to our visit

- Confirm the date, time and numbers for the school visit via email.
- Let us know of any special topics you would like covered in your session. We are happy to tailor the program to best suit your learning requirements. We can put together a pre-snorkel presentation on a topic that you are currently covering, including classification, population dynamics, ocean currents and tides, animal interactions,
- Let us know if there are any students that are not competent swimmers or feel particularly uncomfortable in the water.
- Inform us if there are any seafood allergies within the group.
- Advise the students that they will need to wear/bring swimmers, towel, hat, sunscreen. If they have a wetsuit it is advisable that they bring it along as we have a limited range of sizes.
- This program is available to be run near some coastal schools. Please ask us if you would like us to travel to you.

Post visit evaluation

We aim to provide a high quality program and feedback is a wonderful way to help us continually improve. During the visit a Marine Education Officer will provide each teacher with feedback forms. We ask that teachers fill these in thoroughly and honestly. The forms can be completed and handed back on the day, or returned to the Centre via email, fax or post. Contact details are provided on the forms.

Program related curriculum links

Australian Science Curriculum

Source: <http://www.australiancurriculum.edu.au/Science/Curriculum/F-10>

Skip to Year Level

[Year 7](#)

[Year 8](#)

[Year 9](#)

[Year 10](#)

[Year 11 & 12](#)

-[Biology](#): [Unit 1](#)

-[Earth and Environmental Science](#): [Unit 2](#), [Unit 3](#), [Unit 4](#)

Year 7

ACSSU111 - There are differences within and between groups of organisms; classification helps organise this diversity

ACSSU112 - Interactions between organisms can be described in terms of food chains and food webs; human activity can affect these interactions.

ACSSU222 - Water is an important resource that cycles through the environment

ACSHE119 - Scientific knowledge changes as new evidence becomes available, and some scientific discoveries have significantly changed people's understanding of the world

ACSHE121 - Science understanding influences the development of practices in areas of human activity such as industry, agriculture and marine and terrestrial resource management

Year 8

ACSHE134 - Scientific knowledge changes as new evidence becomes available, and some scientific discoveries have significantly changed people's understanding of the world.

ACSHE136 - Science understanding influences the development of practices in areas of human activity such as industry, agriculture and marine and terrestrial resource management.

Year 9

ACSSU175 - Multi-cellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment.

ACSSU176 - Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems.

Year 10

ACSSU185 - The theory of evolution by natural selection explains the diversity of living things and is supported by a range of scientific evidence.

Biology

Unit 1: Biodiversity and the interconnectedness of life

Science as a Human Endeavour (Units 1 and 2)

ACSBL014 - Scientific knowledge can be used to develop and evaluate projected economic, social and environmental impacts and to design action for sustainability.

Science Understanding

Describing biodiversity

ACSBL015 - Biodiversity includes the diversity of species and ecosystems; measures of biodiversity rely on classification and are used to make comparisons across spatial and temporal scales.

ACSBL016 - Biological classification is hierarchical and based on different levels of similarity of physical features, methods of reproduction and molecular sequences.

ACSBL017 - Biological classification systems reflect evolutionary relatedness between groups of organisms.

ACSBL018 - Most common definitions of species rely on morphological or genetic similarity or the ability to interbreed to produce fertile offspring in natural conditions – but, in all cases, exceptions are found.

ACSBL019 - Ecosystems are diverse, composed of varied habitats and can be described in terms of their component species, species interactions and the abiotic factors that make up the environment.

ACSBL020 - Relationships and interactions between species in ecosystems include predation, competition, symbiosis and disease.

ACSBL021 - In addition to biotic factors, abiotic factors including climate and substrate can be used to describe and classify environments.

Ecosystem dynamics

ACSBL023 - Species or populations, including those of microorganisms, fill specific ecological niches; the competitive exclusion principle postulates that no two species can occupy the same niche in the same environment for an extended period of time.

ACSBL024 - Keystone species play a critical role in maintaining the structure of the community; the impact of a reduction in numbers or the disappearance of keystone species on an ecosystem is greater than would be expected based on their relative abundance or total biomass.

ACSBL026 - Ecological succession involves changes in the populations of species present in a habitat; these changes impact the abiotic and biotic interactions in the community, which in turn influence further changes in the species present and their population size.

ACSBL028 - Human activities (for example, over-exploitation, habitat destruction, monocultures, pollution) can reduce biodiversity and can impact on the magnitude, duration and speed of ecosystem change.

Earth and Environmental Science

Unit 2: Earth processes – energy transfers and transformations

Science as a Human Endeavour (Units 1 & 2)

ACES043 - Scientific knowledge can be used to develop and evaluate projected economic, social and environmental impacts and to design action for sustainability.

Science Understanding

Energy for atmospheric and hydrologic processes

ACSES051 - The behaviour of the global oceans as a heat sink, and Earth's rotation and revolution, cause systematic ocean currents; these are described by the global ocean conveyor model.

Energy for biogeochemical processes

ACSES053 - Photosynthesis is the principal mechanism for the transformation of energy from the sun into energy forms that are useful for living things; net primary production is a description of the rate at which new biomass is generated, mainly through photosynthesis.

ACSES054 - The availability of energy and matter are one of the main determinants of ecosystem carrying capacity; that is, the number of organisms that can be supported in an ecosystem.

Unit 3: Living on Earth - extracting, using and managing Earth resources

Science as a Human Endeavour (Units 3 & 4)

ACSES070 - Scientific knowledge can be used to develop and evaluate projected economic, social and environmental impacts and to design action for sustainability

Science Understanding

Use of renewable Earth resources

ACSES081 - Any human activities that affect ecosystems (for example, species removal, habitat destruction, pest introduction, dry-land salinity) can directly or indirectly reduce populations to beneath the threshold of population viability at local, regional and global scales and impact ecosystem services.

ACSES082 - Overharvesting can directly reduce populations of biota to beneath the threshold of population viability; the concept of maximum sustainable yield aims to enable sustainable harvesting.

ACSES083 - Producing, harvesting, transporting and processing of resources for consumption, and assimilating the associated wastes, involves the use of resources; the concept of an 'ecological footprint' is used to measure the magnitude of this demand.

Unit 4: The changing Earth - the cause and impact of Earth hazards

Science as a Human Endeavour (Units 3 & 4)

ACSES097 - Scientific knowledge can be used to develop and evaluate projected economic, social and environmental impacts and to design action for sustainability.

Science Understanding

The cause and impact of global climate change

ACSES106 - Climate change affects the biosphere, atmosphere, geosphere and hydrosphere; climate change has been linked to changes in species distribution, crop productivity, sea level, rainfall patterns, surface temperature and extent of ice sheets.



School Group Feedback Form

School Name: _____

Teachers Name: _____ Year Level: _____

SCMDC Program: _____ Date: _____

Thank you for booking the Sapphire Coast Marine Discovery Centre. In order to provide quality programs into the future, we would appreciate your feedback.

Return by email education@sapphirecoastdiscovery.com.au or fax to (02) 6496 2404.

- 1) How did the program meet your expectations (Please circle appropriate number)

Worse than Expected

As Expected

Exceeded Expectations

1

2

3

4

5

Comments:

- 2) The program was helpful and informative (Please circle appropriate number)

Strongly disagree

Strongly agree

1

2

3

4

5

Comments:

- 3) The program content was relevant to the students learning (Please circle appropriate number)

Strongly disagree

Strongly agree

1

2

3

4

5

Comments:

Please turn over

4) How would you rate the information presented at your program? (Please circle appropriate number)

Very Poor Reasonable Excellent
1 2 3 4 5

Comments:

5) The presenter(s) and multimedia presentation (if applicable) were professional and accurate (Please circle appropriate number)

Strongly disagree Strongly agree
1 2 3 4 5

Comments:

6) What was the best aspect of the visit?

7) How could we improve the program that your school participated in?

8) I would recommend this education program and would participate again in the future

Strongly disagree Strongly agree
1 2 3 4 5

9) Was this your first visit to/from the centre? Yes/No

10) Why did you make a return visit? _____

11) How did you find out about us?

Website Facebook Brochure/Flyer

Word of mouth Email Other _____

12) Are there any ideas you have regarding programs you would like us to run in the future?

13) Any other comments

Thank you for taking the time to help us improve our programs and facilities.