



'i sea i care'

Marine Ambassador Program Yr 10 Secondary Students



'i sea, i care' is an award-winning program developed by the Dolphin Research Institute, that aims to foster a strong sense of 'Marine and Coastal Self-Esteem' and stewardship for the unique marine treasures of Victoria.



Developing leadership skills to over 4,500 Primary Ambassadors since 2000, the *'i sea i care'* program is now expanding to deliver science enrichment programs designed specifically for secondary students wishing to follow a scientific pathway. An alternative to work experience, this program provides passionate students with a keen interest in environmental values an opportunity to develop skills in mentoring and leadership.

**Program supported by the Department of Environment, Land, Water and Planning
Port Phillip Bay Health fund**

Innovative VICTORIAN Marine Leadership

The **Dolphin Research Institute (DRI)** is a not-for-profit organisation that focuses its marine education and research programs on the unique marine life that inhabits or migrates through Victorian waters.

***'i sea, i care'* Secondary Program**

DRI's *'i sea, i care'* (ISIC) Secondary program provides students aspiring to be marine scientists or environmental managers with an opportunity to experience what it is like in the role, and if this a potential career path for them. The program provides students with the rare chance to work directly alongside DRI's Research and Education Directors to learn more about Port Phillip's marine life and how we can all work together to protect it. It also provides students with access to the DRI staff as mentors during workshops and on-line communication, an exclusive opportunity only provided to ISIC Secondary students involved in the program.

In 2019 the ISIC Secondary program will include two streams. Schools can either:

- Nominate **four Yr 10 students to be Ambassadors** for the schools or,
- Involve a whole **Yr 10 STEM or Science class**



To increase interest in the program at a school level, all participating schools will be offered a one-hour marine education presentation at their school taken by either a DRI Educator or Researcher to a nominated year level at no cost (*valued at over \$440*).

Possible talk topics can include:

- **Victoria's marine treasures**
- **Marine biology career talk**
- **Sustainability and reducing our use of plastics**

'i sea, i care' Secondary 2019 workshops

Term	Workshop synopsis	Student experience
<p>Term 4 2018 (early Dec)</p>	 <p>Snorkel Trip is a fabulous way for the students to get up close to the amazing and unique marine life that lives in Victoria. This workshop marks the start of the Ambassadors' journey to become champions for the marine environment that is in our own backyard. The snorkel trip will take place in December 2018.</p> <p><i>Cost per student - \$75 swim/\$37 trip without swim</i></p> <p><i>Full day</i></p>	<p><i>Ambassadors / STEM and Science students</i></p> <p>Students will see for themselves, the dolphins and other marine life that can be found in Port Phillip.</p> <p>Location: Moonraker Dolphin Swims, Sorrento</p>
<p>Term 2 2019 (Mid May)</p>	 <p>Community Dolphin Monitoring Project (CDMP) workshop where students are exposed to skills that are used in the field by DRI's research team. This includes sighting cues for dolphins and whales and identifying the different marine mammals that can be observed in Port Phillip. Students will apply these skills they gain during the training session to an actual land-based dolphin monitoring survey.</p> <p>Workshop is broken up into two sessions</p> <ol style="list-style-type: none"> 1. How to collect robust sighting data 2. Monitoring for the resident common dolphins off Schnapper Pt <p><i>Full day – Program introduction, CDMP training</i></p>	<p><i>Ambassadors / STEM and Science students</i></p> <p>Students will learn the skills required to undertake a survey for dolphins from land and how to collect robust scientific data.</p> <p>Location:</p> <p>Training session:</p> <ul style="list-style-type: none"> • Ambassadors DRI Education Centre, Hastings • STEM or Science class, choice DRI Office or at your school <p>CDMP survey: Schnapper Pt, Mornington</p>
<p>Term 3 2019 (mid term)</p>	 <p><i>Optional workshop</i> - The Catchments, Litter and Pollution workshop is when student discover the link between inland areas and the bays through rivers, creeks and drains. The human impact is explored through litter surveys and collections, investigating the invertebrate diversity of wetlands and testing for water quality.</p> <p><i>Full day</i></p>	<p><i>Ambassadors / STEM and Science students</i></p> <p>Location: a number of workshops are offered and conducted in conjunction with the ISIC Primary program. School can sign up to any workshop on the date and location that best suits them.</p> <p>Session numbers are capped, so book early</p>

Term	Workshop synopsis	Student experience
Term 3 2019 (early August)	 <p>Monash University excursion – Department of Biological Sciences gives secondary Ambassadors an insight into potential future study options and the opportunity to speak with peers studying and working in environmental related fields. The students will spend the morning in the lab and then tour the campus in the afternoon.</p> <p><i>Half day – timed after Monash Open Day</i></p>	<p><i>Ambassadors</i></p> <p>Students will experience a practical Biology workshop in a Monash University lab. Allow time after the workshop to wander around campus and enable students to experience University life.</p> <p>Location: Monash University Biology labs</p>
Term 2 or 3 2019 (TBA)	 <p>Intertidal survey – students will undertake, as a class, an intertidal survey at West Head, Flinders, or other suitable location. They will work in small teams to collect data to investigate the zonation of marine species on a rock platform that are exposed at low tide.</p> <p><i>Two half days – session one at school, session two intertidal rock platform, possibly at Flinders. Survey session dictated by low tide times at Flinders.</i></p>	<p><i>STEM and Science students</i></p> <p>Session one: Students will learn how to conduct an intertidal survey and identify species that inhabit the rock platform</p> <p>Session two: students will work in small groups to collect robust data on the distribution of species across the rock platform</p> <p>Location: West Head, Flinders</p>
Term 3 / 4 2019 (TBA)	 <p>Sharing presentations teaching workshop which enables the students to develop skills to present to junior students about what they have learnt and the project they are involved with. The objective is to take the session to feeder primary schools and also gain confidence to later talk to community groups about themselves, what they have gained from being part of the program and, more importantly, what they want to do with it.</p> <p><i>Half day session at either a host school or at DRI Office</i></p>	<p><i>Ambassadors / STEM and Science students</i></p> <p>Students will use their public speaking skills and research skills discussed at the CDMP / Introduction session to support and provide evidence on a marine-based issue to an audience beyond their classmates. Presentations will then be shared with other Ambassadors students during this final session.</p> <p>Location: DRI Education Centre, Hastings or Host School</p>

DRI is unable to supervise individual students for work experience. Therefore, the 'i sea, i care' Secondary program is offered as an alternative for those students interested in investigating a career in marine biology, biology, environmental science or science.

Student qualities

Students that could be nominated as Ambassadors for the ISIC Secondary program will likely:

- Have a strong passion for the marine environment
- Are considering a career in marine science or environmental science
- Intend on studying science at University
- Are willing to share what they learn during the program with others to help others understand the unique marine life on our doorstep
- Are looking to further develop their leadership and presentation skills in a field they are passionate about
- Want to meet likeminded students from other Secondary schools
- Want to learn about dolphins and whales that are observed in Port Phillip from marine educators and researchers

Your School's Commitment

Ideally your school will:

- Enrol in the program for at least two years
- Nominate 4 students, or a STEM or Science class who are passionate about the environment and /or are considering a career in biological or environmental science
- Provide staff for each session (beneficial to have the same staff attend and act as co-ordinator)
- Support the students' learning post workshop and assist with any subsequent school-based activities undertaken
- Encourage and guide the Ambassadors to present on marine issues at assembly, Primary School feeder school or other the wider community group e.g. Rotary, Probus

Cost:

Cost depends on the program

- Ambassador program – up to four students per school: \$220 per year (inc GST)
- STEM or Science class – for each class: \$550 per year (inc GST)

Cost includes a talk from DRI educator or researcher to a

Additional costs: Dolphin swim \$75 per person (staff or students)
 Dolphin boat trip (no swim) \$37 per person (staff or students)
 Transport cost to DRI Education Centre / field sites: to be covered by school

For further information or to register your school's interest please contact:

Mandy Robertson, Education Director: education@dolphinresearch.org.au 0497 866 686

Sue Mason, Research Director: research@dolphinresearch.org.au 0438 399 676

ISIC Secondary links to the Victorian Curriculum -Science Levels 9 and 10

Strand	Sub-strand	Victorian curriculum description	Examples based on ISIC Secondary program
Science Understanding	Science as a human endeavour	<ul style="list-style-type: none"> Scientific understanding, including models and theories, are contestable and are refined over time through a process of review by the scientific community 	<ul style="list-style-type: none"> Talk with marine scientists to understand how our understanding of the dolphins in Port Phillip has changed over time
		<ul style="list-style-type: none"> The values and needs of contemporary society can influence the focus of scientific research 	<ul style="list-style-type: none"> Recognise that marine mammal research not only focuses on the animals but also on the impact humans can have on them
	Biological Sciences	<ul style="list-style-type: none"> The theory of evolution by natural selection explains the diversity of living things and is supported by a range of scientific evidence 	<ul style="list-style-type: none"> Examine the diversity of life found in a seagrass sample that is viewed under a microscope. Question why characteristics differ between organisms depending on feeding ecology
		<ul style="list-style-type: none"> Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems 	<ul style="list-style-type: none"> Recognise that dolphin presence in regions of Port Phillip are often associated with the presence of suitable prey resources. Prey presence in turn, is reflective of primary productivity in the area. Other communities of marine megafauna, such as Australasian gannets, associate with dolphins and these can be used as sighting cues for dolphins.
Science Inquiry Skills	Recording and processing	<ul style="list-style-type: none"> Select and use appropriate equipment and technologies to systematically collect and record accurate and reliable data, and use repeat trials to improve accuracy, precision and reliability 	<ul style="list-style-type: none"> Demonstrate the use of marine binoculars for recording sighting so that distance and direction of dolphin locations can be represented and recorded consistently over time
	Analysing and evaluating	<ul style="list-style-type: none"> Analyse patterns and trends in data, including describing relationships between variables, identifying inconsistencies in data and sources of uncertainty, and drawing conclusions that are consistent with evidence 	<ul style="list-style-type: none"> Discuss secondary data, along with data collected during dolphin monitoring survey, previous collected by DRI researchers, to investigate the seasonal presence of common dolphins in a key area of their habitat.
	Communicating	<ul style="list-style-type: none"> Communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language, conventions and representations 	<ul style="list-style-type: none"> Peer-teaching – sharing evidence of Port Phillips unique marine life with peers.

Examples of other curriculum areas Levels 9 and 10

Curriculum Area	Strand	Sub-strand	Victorian curriculum description	Examples based on ISIC Secondary program
Personal and Social Capabilities	Social Awareness and Management	Collaboration	<ul style="list-style-type: none"> Evaluate own and others contribution to group tasks, critiquing roles including leadership and provide useful feedback to peers, evaluate task achievement and make recommendations for improvements in relation to team goals 	<ul style="list-style-type: none"> Evaluate group member contributions during peer teaching session and provide self-reflective and group feedback to improve future presentations
English	Literacy	Interacting with others	<i>Listening and speaking interactions</i> <ul style="list-style-type: none"> Identify and explore the purposes and effects of different text structures and language features of spoken texts, and use this knowledge to create purposeful texts that inform, persuade and engage audiences, using organisation patterns, voice and language conventions to present a coherent point of view on a subject 	<ul style="list-style-type: none"> Present a scientific presentation to peers
			<i>Oral presentations</i> <ul style="list-style-type: none"> Plan, rehearse and deliver presentations, selecting and sequencing appropriate content and multimodal elements to influence a course of action, speaking clearly and using logic, imagery and rhetorical devices in order to engage audiences 	<ul style="list-style-type: none"> Plan, practise and present at presentation to peers about the unique temperate marine life of Port Phillip. Use evidence-based information to engage audience. Use scientific language where appropriate, and consider the interaction and understanding levels of audience and the need to define scientific terminology when required