

Suitability: Years 7 & 9

## Scientific Concepts:

Form Function	Change	Connection
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### Australian Curriculum:

	Biological Science	Geography
Year 7	<ul> <li>Classification helps organise the diverse group of organisms</li> <li>Interactions between organisms, including the effects of human activities can be represented by food chains and food webs</li> </ul>	<ul> <li>Classification of environmental resources and the forms that water takes as a resource</li> <li>The way that flows of water connects places as it moves through the environment and the way this affects places</li> </ul>
Year 9	<ul> <li>Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems</li> <li>Values and needs of contemporary society can influence the focus of scientific research</li> </ul>	

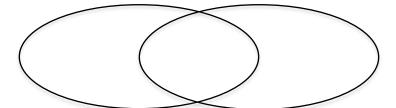
#### SAMM Education Session Outline:

- Facilitated education session, unpacking the scientific concepts and learning about the Port River Dolphins and their habitat
- Half hour Port River cruise onboard the Archie Badenoch to view the dolphins in their natural habitat
- Self-guided session to explore the South Australian Maritime Museum, and view the dolphin exhibition
- Climb the Port Adelaide lighthouse for a birds-eye view of the Port River and local surrounds

# Pre / Post Visit Learning Engagements:

- About two thirds of the Port River dolphin pod can be identified by their distinctive dorsal fins or tails. The dorsal fin is made of soft cartilage and is easily marked by bites from other dolphins, or from injury. Look at the images of some of the Port River dolphins and discuss reasons as to why their tails / fins have markings.
- Research the Adelaide Dolphin Sanctuary and give reasons as to why the area has been declared a sanctuary. What does this mean, and how does it affect the dolphins? Create a poster to raise awareness of the sanctuary with a focus on human actions.
- Select one of the Adelaide Dolphin Sanctuary Reference Papers to investigate an aspect of the sanctuary in greater depth. Summarise the points in the paper and present your findings to the class using a method of your choice.
   Dolphin Reference Paper
   Habitat Reference Paper
   Water Quality Reference Paper
- Size comparison chart: Create a pictorial chart that shows a number of different dolphin species in order of size (length). Students devise their own key for the scale. You can extend this into a physical outdoor numeracy activity (using materials such as pegs and string to "peg out" the length of each dolphin), measuring outside on a school oval or against a hall or gym building to create a visual graph.
- Read about the work Dr Mike Bossley has undertaken over the past 25 years in his work with the Port River dolphins. Consider the changes that have occurred in the past 25 years, including advances in technology.
- The state government have designated particular areas as marine parks. These areas are sanctuaries in which mining, dredging, aquaculture, trawling and fishing are not allowed. Identify the locations of these marine parks and outline the areas on a map of South Australia.

- Conduct water testing of the Port River to ascertain the contents / quality of the water. Discuss the implications water quality has on the Port River dolphins, especially any metals or contaminants.
- Dolphins have blubber to help regulate their body temperature in cold environments. Research another animal that has a significant amount of blubber and use a Venn Diagram to draw comparisons between the two.



- Select another major water way /river in which dolphins live. Use the Venn Diagram above to compare this environment with the Port River.
- Find out what the WDCS (Whale and Dolphin Conservation Society) does to protect dolphins. Identify other organisations that work to protect marine animals and their environments.
- Look at the image of the dolphin, dog and dolphin together in the Port River (taken in the 1980s). Use Claim Support Question strategy to examine the photograph.



#### Claim – Support - Question

- Make a **CLAIM** about the photograph.
- (Claim: An explanation or interpretation of some aspect of the photo)
- Identify SUPPORT for your claim. (Support: Things you see, feel, and know that support your claim.)
- Ask a **QUESTION** related to your claim. (Question: What's left hanging? What isn't explained? What new reasons does your claim raise?)
- Use the Connect Extend Challenge strategy to reflect on your visit to SAMM and experiences related to the dolphin exhibition:

CONNECT:How did the dolphin exhibition connect to what you already knew about dolphins?EXTEND:How did the dolphin exhibition extend or push your thinking in new directions?CHALLENGE:What is still challenging or confusing for you to get your mind around?What questions, wonderings or puzzles do you now have?

