South Australian Maritime Museum

Biodiversity at Sea – Teacher Resource

Suitability: Years F – 5

Prior to your visit: View the story of **Gavin A Leafy Seadragon**

Learn about South Australia's 8 marine bioregions and associated marine parks. Develop an awareness of and increased understanding of the marine environment and marine issues, leading to student initiated action.

Australian Curriculum Science:

	Science Understanding	Science as a Human Endeavour	Science Inquiry Skills	Achievement Standard
Foundation	Living things have basic needs, including food and water. Daily and seasonal changes in our environment affect everyday life.	Science involves observing, asking questions about, and describing changes in, objects and events.	Engage in discussions about observations and represent ideas	Students share and reflect on observations, and ask and respond to questions about familiar objects and events.
Year 1	Living things have a variety of external features. Living things live in different places where their needs are met.	People use science in their daily lives, including when caring for their environment and living things	Use a range of methods to sort information, including drawings and provided tables and through discussion, compare observations with predictions	They describe changes in their local environment and how different places meet the needs of living things.
Year 2	Living things grow, change and have offspring similar to themselves.	People use science in their daily lives, including when caring for their environment and living things.	Use a range of methods to sort information, including drawings and provided tables and through discussion, compare observations with predictions.	By the end of Year 2, students describe changes to objects, materials and living things.
Year 3	Living things can be grouped on the basis of observable features and can be distinguished from non-living things	Science knowledge helps people to understand the effect of their actions.	Living things have structural features and adaptations that help them to survive in their environment	They group living things based on observable features and distinguish them from non-living things.
Year 4	Living things have life cycles. Living things depend on each other and the environment to survive.			They describe relationships that assist the survival of living things and sequence key stages in the life cycle of a plant or animal. They identify when science is used to understand the effect of their actions.
Year 5	Living things have structural features and adaptations that help them to survive in their environment.	Scientific knowledge is used to solve problems and inform personal and community decisions.		They analyse how the form of living things enables them to function in their environments.

SAMM Education Session Outline:

- Participate in a facilitated education session with an education officer to learn about South Australia's bioregions, the marine animals and environmental conditions in which they live. Discover the interrelationship between the animals. Learn about marine parks and why these areas have been established.
- Engage in a play-based experience, dressing up as the marine animals from the Gavin: A Leafy Seadragon story.
- Cruise the Port River onboard the historic Archie Badenoch to explore one of South Australia's bioregions (St Vincent Gulf) and the Adelaide Dolphin Sanctuary.
- Explore the Maritime Museum, with a focus on the Dolphin exhibition, looking at the relationship between humans and marine species. Print a self-guided trail book: Junior Primary or Primary.
- Climb the Port Adelaide lighthouse for a birds-eye view of the Port River and surrounding area.

Pre / Post Visit Learning Engagements:

- Write a poem to help you remember the names of South Australia's 8 marine bioregions and their locations.
- Make up a jingle for each marine bioregion. The jingle needs to highlight the features, habitat or marine life of the region.
- Choose two of the marine bioregions and use a Venn diagram to compare them.
- Make a movie style poster to advertise the star attractions of one of the bioregions. This may be a marine animal, plant or habitat feature.
- Find out which marine bio-region is closest to the area you live in. Prepare an oral presentation to share what you know about your local bioregion with others.
- Design a board game which teaches the players about the 8 marine bioregions and shows how they are all important for South Australia's marine biodiversity.
- Design a menu to show a food chain applicable to one of the marine habitats.
- Choose one of the marine bioregions and write a good luck/bad luck story showing the positive and negative impact of human activity and natural occurrences on the bioregion.
- Make a flow chart to show the effect of one of these activities on marine environments:
  Over fishing *By-catch* *Pollution*
- Write clues and questions related to each of the bioregions and create a "Where am I?" book.
- Make puppets to represent the marine life found in one of South Australia's marine bioregions. Make up a puppet show with your puppets showing how the creatures interact and depend on each other.
- Choose one of the bioregions and make up a song about it including all the information you know about the bioregion.
- Make a model of a marine habitat that can be found in South Australia. Include marine life, plants and natural features.
- Choose one of the bioregions and make 'top ten' lists of: *Marine life of the region*
  Habitat features of the region *Issues the region faces* *Things that would help the region*
- Use a shoebox to create a diorama of a South Australian marine habitat.
- Design a method of transport that can travel through marine areas without causing any damage or affecting the marine life.
- Choose one of the bioregions and design a new marine creature that would be perfectly adapted to live in the conditions of this bioregion.
- Read about the Adelaide Dolphin Sanctuary. Write a proposal for a sanctuary to protect another marine creature.
- Write a letter to your local member of parliament asking for their support in protecting your closest marine bioregion.
- Make sure your letter includes information about how important it is to protect the region and your suggestions for protecting it.
- List the animals living in South Australia's bioregions. Identify the animals that are found in each bioregion and identify those animals that are found in more than one bioregion.
- Write a persuasive piece that states your opinion on marine parks.
- Draw a map of South Australia and show the location of the 19 marine parks.
- Select a marine park and create a 3D model to show what the environment is like. Include a brochure to educate others about this marine park.
- Design a poster encouraging people to visit one of the marine parks. Include highlights of the park and guidelines for visiting the area without damaging it.