Teacher Program Overview
Bear Essentials – Year Nine

Program Duration: 45 minutes
Minimum Participants: 10 students **Maximum Participants:** 35 students

Program Overview:

During this program, students will investigate the specialised body systems Polar bears are equipped with to survive in the harsh environment of the Arctic Circle. This program aligns with the biological sciences strand of the Australian Curriculum for Science. Students will delve into Polar Bear anatomy and biology to understand the specialised functioning and coordination of the respiratory, circulatory, digestive, excretory, nervous and endocrine systems required for responding to changes in the environment. This program will focus on how Polar bears access nutrition and store energy and the impact this has on successful reproduction. Given the conservation status of Polar bears, this program will conclude with a discussion about how human activities are exacerbating the stressors on Polar bears' body systems by altering the already challenging environment of the Arctic through climate change. Students will be encouraged to pose questions and use critical thinking to identify solutions for energy conservation and minimising human impacts at an individual level and on a global scale.

Alignment with the Australian Curriculum:

SCIENCE

Biological Sciences	Multi-cellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment (ACSSU175)

General Capabilities:	**Cross-Curriculum Priorities:**
• Literacy • Critical and Creative Thinking • Personal and Social Capabilities • Ethical Understanding	• Sustainability

Additional Information:

Teacher Program Schedule
Bear Essentials – Year Nine

Time	
9.15am	**Arrival**
	The school will arrive promptly at 9:15am and will be met by a Marine Education Officer on the lawn next to the flagpoles out the front of Sea World.
9.20am	**Park Entry**
	The Marine Education Officer will lead the school group through the admissions gate to Polar Bear Shores for the education program.
9.30am	**Education Program**
	This program is approximately 45 minutes, and will finish by 10:30am at the latest. Please note: selection of this program will prevent the school group from seeing the morning *Fish Detectives Sea Lion Show*.
10.30am	**Program Conclusion**
	At the conclusion of this session, students will be free to enjoy the park for the rest of the day, at the teacher's discretion.

Teacher Program Overview
Marine Investigators – Year Nine

Program Duration: 45 minute lecture + 1hr snorkel program (inclusive of 20 minutes in-water time)
Minimum Participants: 8 students, 1 teacher **Maximum Participants:** 44 students, 4 teachers

Program Overview:

During this program students will learn how reef ecosystems consist of communities of interdependent organisms. *Marine Investigators* aligns with the Australian Curriculum for the Science learning area, particularly addressing Science Inquiry Skills. A 45 minute session at Shark Bay's underwater viewing gallery will allow students to explore the roles and relationships of various marine creatures and identify examples of predation, competition and mutualism. Through the Tropical Reef snorkelling program, which is inclusive of 20 minutes in the water, students will practice basic snorkelling skills in a safe, controlled environment. This program can be used to collect data for a class project or assessment task where students are required to formulate questions for investigation; collect and record data on provided underwater slates; draw conclusions consistent with recorded evidence; and evaluate the quality and usefulness of these conclusions.

Alignment with the Australian Curriculum:

SCIENCE

Science Understanding	
Biological Sciences	Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems (ACSSU176)
Science as a Human Endeavour	
Use and Influence of Science	People use scientific knowledge to evaluate whether they accept claims, explanations or predictions, and advances in science can affect people's lives, including generating new career opportunities (ACSHE160)
Science Inquiry Skills	
Questioning and Predicting	Formulate questions or hypotheses that can be investigated scientifically (ACSIS164)
Planning and Conducting	Plan, select and use appropriate investigation types, including field work and laboratory experimentation, to collect reliable data; assess risk and address ethical issues associated with these methods (ACSIS165)
	Select and use appropriate equipment, including digital technologies, to collect and record data systematically and accurately (ACSIS166)
Processing and Analysing Data and Information	Use knowledge of scientific concepts to draw conclusions that are consistent with evidence (ACSIS170)
Evaluating	Evaluate conclusions, including identifying sources of uncertainty and possible alternative explanations, and describe specific ways to improve the quality of the data (ACSIS171)

Teacher Program Overview
Marine Investigators – Year Nine

General Capabilities:	Cross-Curriculum Priorities:
• Literacy • Critical and Creative Thinking • Personal and Social Capabilities • Ethical Understanding	• Sustainability

Additional Information:

- An additional fee per person will be charged for participation in the Tropical Reef Snorkel program.
- To be eligible for the Tropical Reef Snorkel program, students, school staff and any accompanying adults must meet the program's participation criteria and must each have a signed copy (by students' guardians where necessary) of the program waiver form to deliver to the Marine Education Officer upon entry into Sea World.
- Tropical Reef Snorkel program participants must bring swimmers and a towel.
- Cameras are permitted in the Tropical Reef Lagoon but camera extension poles are not – please note, Sea World and its staff are not responsible for the security and/or well-being of any participant's personal belongings.

Teacher Program Schedule
Marine Investigators – Year Nine

Time	
8.50am	**Arrival**
	The school will arrive promptly at 8:50am and will be met by a Marine Education Officer on the lawn next to the flagpoles out the front of Sea World.
9.00am	**Park Entry**
	The Marine Education Officer will lead the school group through the admissions gate to Shark Bay for the education program.
9.15am	**Education Program**
	A 45-minute lesson will serve to provide educational content and technical instruction for the snorkelling program.
10.15am	**Snorkelling program/s**
	The first group of up to 12 snorkelling participants (inclusive of teachers) are delivered to the Shark Bay briefing room for commencement of the Tropical Reef Snorkel program. This component of *Marine Investigators* runs for 50 minutes to an hour and involves: • 15 minutes for a safety briefing and time to get changed; • 20 minute snorkel • 15 minutes to get changed back into dry clothes If there are over 12 participants, collection times for subsequent programs will be at half hourly intervals: 10:15 am 10:45 am 11:15 am 11:45am Teachers should be dispersed between groups as necessary. The collection point for subsequent groups will be under the umbrella at the entry to the Tropical Reef Lagoon at Shark Bay.
11.15am	**Program Conclusion (approximate)**
	If there is only one snorkel program, the session will conclude at approximately 11:15am and students will be free to enjoy the park for the rest of the day, at the teacher's discretion. In the instance of multiple snorkelling programs, the final group will conclude approximately 1 hour after their snorkel collection time.

Teacher Program Overview
The Hunger Games – Year Nine

Program Duration: 45 minutes
Minimum Participants: 10 students **Maximum Participants:** 100 students

Program Overview:

Aligning with the biological sciences strand of the Australian Curriculum for Science, this program builds on the foundation of understanding the interactions and interdependence between marine animals and the abiotic components of their environment. By constructing a marine food web, students will consolidate their knowledge of specific roles and relationships, and recognise how energy circulates through an ecosystem and must be replaced to maintain the sustainability of the system. Students will investigate the various natural and anthropogenic factors that affect population sizes, such as seasonal and long-term climate change, habitat destruction, introduced species and disease, by considering the challenges sea turtles face in the ocean. Students will discover some human initiatives for protecting marine life including turtle exclusion devices (TEDs) and marine protected zones, and will devise other actions that can be applied to conserve ecosystems.

Alignment with the Australian Curriculum:

SCIENCE

Science Understanding	
Biological Sciences	Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems (ACSSU176)

General Capabilities:	**Cross-Curriculum Priorities:**
• Literacy • Critical and Creative Thinking • Personal and Social Capabilities • Ethical Understanding	• Sustainability

Additional Information:

Web Resource:

http://education.nationalgeographic.com.au/activity/marine-food-webs/

Teacher Program Schedule
The Hunger Games – Year Nine

Time	
9.15am	**Arrival**
	The school will arrive promptly at 9:15am and will be met by a Marine Education Officer on the lawn next to the flagpoles out the front of Sea World.
9.20am	**Park Entry**
	The Marine Education Officer will lead the school group through the admissions gate to Shark Bay for the education program.
9.30am	**Education Program**
	This program is approximately 45 minutes, and will finish by 10:30am at the latest. Please note: selection of this program will prevent the school group from seeing the morning *Fish Detectives Sea Lion Show*.
10.30am	**Program Conclusion**
	At the conclusion of this session, students will be free to enjoy the park for the rest of the day, at the teacher's discretion.

Teacher Program Overview and Schedule
Environmental Issues

Year Level: All
Program Duration: 45 minutes
Min. Participants: 10 students **Max. Participants:** 100 students

Program Overview:

Set in the underwater viewing gallery of Shark Bay, this program introduces students to the numerous ways humans are interconnected to the oceans and their inhabitants. Students of all year levels will engage in inquiry-based learning activities to discover how fishing activity, shark nets, marine debris and pollution are all contributing to loss of biodiversity and what actions can be taken personally and collectively to live sustainably and reduce our ecological footprint.

Additional Information:

**Program is not curriculum aligned*

Program Schedule

Time	
9.15am	**Arrival**
	Meet Marine Education Officer on lawn next to flagpoles out front of Sea World
9.20am	Park entry and transfer to Shark Bay
9.30am	**Education Program**
	Please note: selection of this program will prevent school from seeing morning Fish Detectives Sea Lion Show
10.30am	**Program Conclusion**
	At the conclusion of this session, students will be free to enjoy the park for the rest of the day, at the teacher's digression.

Teacher Program Overview and Schedule
Getting Smart About Sharks

Year Level: All
Program Duration: 45 minutes
Min. Participants: 10 students **Max. Participants:** 100 students

Program Overview:

During this interactive program, students of all ages will learn about the amazing biology and ecology of sharks. Students will discover the variety of marine habitats where sharks live, what roles they occupy in their habitats and how they are equipped to survive in their environment. Specific adaptations covered will address how sharks move, hunt, protect themselves, rest and breathe. Students will consider how some human activities are threatening the survival of sharks and will discuss actions that can be taken individually and globally to help with conservation of these animals.

Additional Information:

**Program is not curriculum aligned*

Program Schedule

Time	
9.15am	**Arrival**
	Meet Marine Education Officer on lawn next to flagpoles out front of Sea World
9.20am	Park entry and transfer to Shark Bay
9.30am	**Education Program**
	Please note: selection of this program will prevent school from seeing morning Fish Detectives Sea Lion Show
10.30am	**Program Conclusion**
	At the conclusion of this session, students will be free to enjoy the park for the rest of the day, at the teacher's digression.

Teacher Program Overview and Schedule
In Depth With Dolphins

Year Level: All
Program Duration: 45 minutes
Min. Participants: 10 students **Max. Participants:** n/a

Program Overview:

During this interactive program, students of all ages will learn about the amazing biology and ecology of sharks. Students will discover the variety of marine habitats where sharks live, what roles they occupy in their habitats and how they are equipped to survive in their environment. Specific adaptations covered will address how sharks move, hunt, protect themselves, rest and breathe. Students will consider how some human activities are threatening the survival of sharks and will discuss actions that can be taken individually and globally to help with conservation of these animals.

Additional Information:

**Program is not curriculum aligned*

Program Schedule

Time	
10.30am	**Arrival**
	Advised latest entry time to park
11.00am	**Affinity Dolphin Show**
	Group to arrive at Dolphin Beach for 11:15am Affinity Dolphin Show
11.35am	**Education Program**
	Please note: selection of this program will prevent school from seeing morning Fish Detectives Sea Lion Show
12.20pm	**Program Conclusion**
	At the conclusion of this session, students will be free to enjoy the park for the rest of the day, at the teacher's digression.

Teacher Program Overview and Schedule
Paws, Claws and Roars

Year Level: All
Program Duration: 45 minutes
Min. Participants: 10 students **Max. Participants:** 35 students

Program Overview:

This interactive program provides a broad overview of Polar bear biology and ecology for students of all ages. Students will learn where Polar Bears live, what role they occupy in their habitat and how they are equipped to survive in their environment. Specific adaptations covered will address how Polar bears move, hunt, protect themselves and maintain body temperature. Students will consider how some human activities are threatening Polar bears' survival and will discuss actions that can be taken individually and globally to help with conservation of this species.

Additional Information:

**Program is not curriculum aligned*

Program Schedule

Time	
9.15am	**Arrival**
	Meet Marine Education Officer on lawn next to flagpoles out front of Sea World
9.20am	Park entry and transfer to Polar Bear Shores
9.30am	**Education Program**
	Please note: selection of this program will prevent school from seeing morning Fish Detectives Sea Lion Show
10.30am	**Program Conclusion**
	At the conclusion of this session, students will be free to enjoy the park for the rest of the day, at the teacher's digression.

Teacher Program Overview and Schedule
The Real Deal With Seals

Year Level: All
Program Duration: 45 minutes
Min. Participants: 10 students **Max. Participants:** n/a

Program Overview:

During this interactive program, students of all ages will learn about the fascinating biology and ecology of seals. Students will discover the variety of marine habitats where seals live, what roles they occupy in their habitats and how they are equipped to survive in their environment. Specific adaptations covered will address how seals move, hunt, protect themselves, rest, breathe and maintain body temperature. When available, a marine mammal trainer will deliver a short talk about training and animal care usually involving a brief training session with a seal. Students will consider how some human activities are threatening the survival of seals and will discuss actions that can be taken individually and globally to help with conservation of these animals.

Additional Information:

**Program is not curriculum aligned*

Program Schedule

Time	
9.45am	**Arrival**
	Advised latest entry time to park
10.00am	***Fish Detectives Sea Lion Show***
	Group to arrive at the Sea Lion Theatre for 10:15am F*ish Detectives Sea Lion Show*
10.35am	**Education Program**
	Please note: selection of this program will prevent school from seeing morning *Affinity Dolphin Show*
11.20pm	**Program Conclusion**
	At the conclusion of this session, students will be free to enjoy the park for the rest of the day, at the teacher's digression.