



Bear Essentials – Year Nine Program Overview & Schedule

Program Duration: 45 minutes

Minimum Participants: 10 students

Maximum Participants: 35 students

Location: Polar Bear Shores

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 Arctic environment 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.

Program Schedule:

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 *Seal Guardians Presentation*.

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 discretion of school staff.

Bear Essentials – Year Nine Program Mapping

Alignment with the Australian Curriculum:

SCIENCE

Science Understanding

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

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)
	Values and needs of contemporary society can influence the focus of scientific research (ACSHE228)

General Capabilities:

- Literacy
- Critical and Creative Thinking
- Personal and Social Capabilities
- Ethical Understanding

Cross-Curriculum Priorities:

- Sustainability