

## BIOLOGY

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The following provides an overview of the content of the 2 Unit Biology course.

| Preliminary Course  | HSC Course  |
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| <p><b>Core</b></p> <ul style="list-style-type: none"><li>• A Local Ecosystem</li><li>• Patterns in Nature</li><li>• Life on Earth</li><li>• Evolution of Australian Biota</li></ul> <p>(Note Biology Skills are incorporated in all of these units)</p> | <p><b>Core</b></p> <ul style="list-style-type: none"><li>• Maintaining a Balance</li><li>• Blueprint of Life</li><li>• The Search for Better Health</li></ul> <p><b>Option</b> (Students study ONE only)</p> <ul style="list-style-type: none"><li>• Communication</li><li>• Biotechnology</li><li>• Genetics: The Code Broken</li><li>• The Human Story</li><li>• Biochemistry</li></ul> |

Biology provides students with a contemporary and coherent understanding of the concepts explaining the functioning, origins and evolution of living things.

Biology explores the levels of organisation of life, from the molecular level through cellular to higher levels of organisational structure and function, which exhibit evolution as a common source of unity and diversity. It includes developing an understanding of the interactions within and between organisms and between organisms and their environment.

The study of Biology recognises that, while humans are part of nature, they continue to have a greater influence on the environment than any other species. The history and philosophy of science, as it relates to the development of the understanding, utilisation and manipulation of living systems by the human species, is an integral part of the study of contemporary biology and assists students to recognise their responsibility to conserve, protect, maintain and improve the quality of all environments for future generations.

Biology draws upon, and builds onto, the knowledge and understanding, skills and values and attitudes developed in Science Stages 4–5. It further develops students' understanding of science as a continually developing body of knowledge, the role of experimentation in deciding between competing theories, the provisional nature of scientific explanations, the interdisciplinary nature of science, the complex relationship between evidence and ideas and the impact of science on society.

The study of Biology involves students working individually and with others in practical, field and interactive activities that are related to the theoretical concepts considered in the course. It is expected that students studying biology will apply investigative and problem-solving skills, effectively communicate biological information and understanding and appreciate the contribution that a study of biology makes to their understanding of the world.

The Biology course is designed for those students who have a substantial achievement level based on the Science Stages 4–5 course performance descriptions. The subject matter of the Biology course recognises the different needs and interests of students by providing a structure that builds upon the foundations laid in Stage 5 yet recognises that students entering Stage 6 have a wide range of abilities, circumstances and expectations.