

Biology

2 units for each of Preliminary and HSC
Board Developed Course
Exclusions: Nil

Course Description:

The Biology Stage 6 Syllabus explores the diversity of life from a molecular to a biological systems level. The course examines the interactions between living things and the environments in which they live. It explores the application of biology and its significance in finding solutions to health and sustainability issues in a changing world.

Biology uses Working Scientifically processes to develop scientific investigative skills. It focuses on developing problem-solving and critical thinking skills to understand and support the natural environment. When Working Scientifically, students are provided with opportunities to design and conduct biological investigations both individually and collaboratively.

The Biology course builds on the knowledge and skills of the study of living things found in the Science Stage 5 course. The course maintains a practical emphasis in the delivery of the course content and engages with the technologies that assist in investigating current and future biological applications.

The course provides the foundation knowledge and skills required to study biology after completing school and supports participation in a range of careers in biology and related interdisciplinary industries. It is a fundamental discipline that focuses on personal and public health and sustainability issues and promotes an appreciation for the diversity of life on the Earth and its habitats.

Main Topics Covered:

Preliminary Course

- Working Scientifically (Skills)
- Cells as the Basis of Life
- Organisation of Living Things
- Biological Diversity
- Ecosystem Dynamics

HSC Course

- Working Scientifically (Skills)
- Heredity
- Genetic Change
- Infectious Disease
- Non-infectious Diseases and Disorders

Particular Course Requirements:

- Students are provided with 15 hours of course time for Depth Studies in both Year 11 and Year 12. During this time students may undertake an investigation/activity that allows for the further development of one or more scientific concepts. A Depth Study may be one investigation/activity or a series of investigations/activities. Depth Studies may be included in one module or across several modules.
- Practical investigations are an essential part of the Year 11 and Year 12 courses and must occupy a minimum of 35 hours of course time each year.
- Fieldwork is also mandated in Year 11 and is an integral part of the learning process.