

BIOLOGY

WHAT TYPE OF SUBJECT IS BIOLOGY?

Biology provides opportunities for students to engage with living systems. Students develop their understanding of cells and multicellular organisms. They engage with the concept of maintaining the internal environment. They study biodiversity and the interconnectedness of life. This knowledge is linked with the concepts of heredity and the continuity of life.

Students learn and apply aspects of the knowledge and skills of the discipline (thinking, experimentation, problem-solving and research skills), understand how it works and how it may impact society. They develop their sense of wonder and curiosity about life; respect for all living things and the environment; understanding of biological systems, concepts, theories and models; appreciation of how biological knowledge has developed over time and continues to develop; a sense of how biological knowledge influences society.

Students plan and carry out fieldwork, laboratory, and other research investigations; interpret evidence; use sound, evidence-based arguments creatively and analytically when evaluating claims and applying biological knowledge; and communicate biological understanding, findings, arguments and conclusions using appropriate representations, modes and genres.

PATHWAYS

A course of study in Biology can establish a basis for further education and employment in the fields of medicine, forensics, veterinary, food and marine sciences, agriculture, biotechnology, environmental rehabilitation, biosecurity, quarantine, conservation, and sustainability.

OBJECTIVES

By the conclusion of the course of study, students will:

- describe and explain scientific concepts, theories, models and systems and their limitations
- apply understanding of scientific concepts, theories, models and systems within their limitations analyse evidence
- interpret evidence
- investigate phenomena
- evaluate processes, claims, and conclusions
- communicate understandings, findings, arguments and conclusions

STRUCTURE

Unit 1	Unit 2	Unit 3	Unit 4
Cells & Multicellular Organisms	Maintaining the Internal Environment	Biodiversity & The Interconnectedness of Life	Heredity & Continuity of Life
Cells as The Basis of Life	Homeostasis	Describing Biodiversity	DNA, Genes & the Continuity of Life
Multicellular Organisms	Infectious Diseases	Ecosystem Dynamics	Continuity of Life on Earth

ASSESSMENT

In Units 1 and 2, all assessment is formative. However, the assessment in Units 1 and 2 will model that which students will encounter in Units 3 and 4. In Units 3 and 4 students complete four summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A – E).

Unit 3		Unit 4	
Summative Internal Assessment 1 (IA1): Data Test	10%	Summative Internal Assessment 3 (IA3): Research Investigation	20%
Summative Internal Assessment 2 (IA2): Student Experiment	20%	Summative External Assessment (EA): Examination	50%