



Biology

Description

Biology is a diverse and evolving science discipline that seeks to understand and explore the nature of life, past and present. Despite the diversity of organisms and their many adaptations for survival in various environments, all life forms share a degree of relatedness and a common origin. The study explores the dynamic relationships between organisms and their interactions with the non-living environment. It also explores the processes of life, from the molecular world of the cell to that of the whole organism, that maintain life and ensure its continuity.

Unit Topics

Unit 1 - How do living things stay alive?

Unit 2 - How is continuity of life maintained?

Unit 3 - How do cells maintain life?

Unit 4 - How does life change and respond to challenges over time?

Skill Development

Inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, communication skills.

Possible Assessment Tasks

Practical Investigation, Research task with class presentation, Self directed investigation, tests.

Activities/Camps/Excursions

Practical experimentation, Research, Group work, Reading and questions from text, Application of knowledge to unfamiliar contexts, Edrolo, Excursions.

Career Options

Branches of biology include botany, genetics, immunology, microbiology, pharmacology and zoology. In addition, biology is applied in many fields of endeavour including biotechnology, dentistry, ecology, education, food science, forestry, health care, horticulture, medicine, optometry, physiotherapy and veterinary science. Biologists also work in cross-disciplinary areas such as bushfire research, environmental management and conservation, forensic science, geology, medical research and sports science.