Biology (0610)

An extract from Syllabus Cambridge IGCSE

https://www.cambridgeinternational.org/Images/595426-2023-2025-syllabus.pdf

Aims

- ✓ acquire scientific knowledge and understanding of scientific theories and practice
- ✓ develop a range of experimental skills, including handling variables and working safely
- ✓ use scientific data and evidence to solve problems and discuss the limitations of scientific methods
- ✓ communicate effectively and clearly, using scientific terminology, notation and conventions
- ✓ understand that the application of scientific knowledge can benefit people and the environment
- ✓ enjoy science and develop an informed interest in scientific matters which support further study

Content overview

Characteristics and classification of living organisms; Organization of the organism; Movement in and out of cells; Biological molecules; Enzymes; Plant nutrition; Human nutrition; Transport in plants;;Transport in animals; Diseases and immunity; Gas exchange in humans; Respiration; Excretion in humans; Coordination and response; Drugs; Reproduction; Inheritance; Variation and selection; Organisms and their environment; Biotechnology and genetic engineering; Human influences on ecosystems.

Subject content

Scientific subjects are, by their nature, experimental. Learners should pursue a fully integrated course which allows them to develop their experimental skills by doing practical work and investigations across a range of topics.

Practical work helps students to:

- ✓ use equipment and materials accurately and safely
- ✓ develop observational and problem-solving skills
- ✓ develop a deeper understanding of the syllabus topics and the scientific approach
- ✓ appreciate how scientific theories are developed and tested
- ✓ transfer the experimental skills acquired to unfamiliar contexts
- ✓ develop positive scientific attitudes such as objectivity, integrity, cooperation, enquiry and inventiveness
- ✓ develop an interest and enjoyment in science.