Biology

[applicable to the 2029 HKDSE Examination and onwards]

Science Education Section

Innovation Technology Education Division

Education Bureau

Curriculum Aims

The broad aims of the Biology Curriculum are to enable students to:

- develop and maintain an interest in biology, a sense of wonder and curiosity about the living world, and a respect for all living things and the environment;
- construct and apply knowledge of biology, understand the nature of science in biology-related contexts, and appreciate the relationships between biological science and other disciplines;
- develop the ability to make scientific inquiries; think scientifically, critically and creatively; and solve biology-related problems individually and collaboratively;
- understand the language of science and communicate ideas and views on biology-related issues;
- be aware of the social, ethical, economic, environmental and technological implications of biology, and be able to make informed decisions and judgments on biology-related issues; and
- develop an attitude of responsible citizenship, and a commitment to promote personal and community health.

Curriculum Framework

- **Compulsory Part**
  - **I. Cells and Molecules of Life**
  - **II. Genetics and Evolution**
  - **III. Organisms and Environment**
  - **IV. Health and Diseases**

- **Elective Part (any 2 out of 4)**
  - **V. Human Physiology: Regulation and Control**
  - **VI. Applied Ecology**
  - **VII. Microorganisms and Humans**
  - **VIII. Biotechnology**

Assessment Mode

Component		Weighting	Duration
Public Examination	Paper 1 Compulsory Part	60%	2.5 hours
	Paper 2 Elective Part (attempt questions from any **two** of the four elective topics)	20%	1 hour
School-based assessment (SBA)		20%	

For information about the assessment of biology, please refer to the HKEAA webpage:
https://www.hkeaa.edu.hk/en/hkdse/assessment/subject_information/category_a_subjects/hkdse_subj.html?A2&2&5

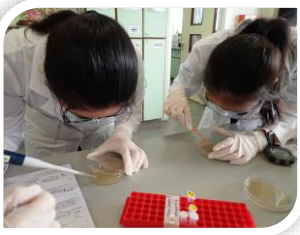
Examples for Student/learning activities

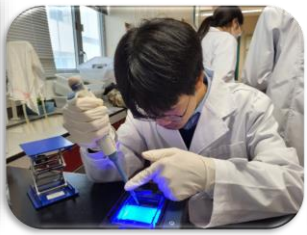
Scientific investigations

Use of microscopes

Field studies

Experiments in microbiology & biotechnology





Dissection

Making ecosphere

Pathways for Further Studies

Biology-related Bachelor Degree / Associate Degree Programmes

Bachelor Degree Programmes (examples)

- **Biological Sciences**
- **Environmental Science**
- **Biotechnology**
- **Bioengineering**
- **Food and Nutrition Science**
- **Microbiology**
- **Bioinformatics**
- **Medicine**
- **Traditional Chinese Medicine**
- **Rehabilitation Sciences (e.g. Physiotherapy)**
- **Nursing**

Associate Degree Programmes (examples)

- **Biological Sciences**
- **Biotechnology**
- **Environmental Science and Management**
- **Biomedical Sciences**

Examples for Learning and Teaching Resources

Learning and Teaching Resources for Senior Secondary Biology Curriculum

English Version | 繁體中文

Learning and Teaching Resources for Senior Secondary Biology Curriculum: Biotechnology & Microbiology (Video Clips Demonstrating Basic Practical Techniques) (2021)

To supplement the "Learning and Teaching Resources for Senior Secondary Biology Curriculum: Biotechnology & Microbiology", 12 video clips demonstrating some basic practical techniques of experiments related to biotechnology and microbiology (e.g. using a micropipette, gel electrophoresis, aseptic techniques and serial dilutions) are developed to enhance students' mastery of some basic practical techniques and to enhance the safety awareness of students, teachers and laboratory technicians in performing these practical tasks in the school laboratories.

Please click the following link to watch the video clips:
https://emm.edcity.hk/playlist/1_ulyec1td/

Learning and Teaching Resources for Senior Secondary Biology Curriculum: Biotechnology & Microbiology (2021)

To enrich the learning and teaching of topics related to biotechnology and microbiology in the Biology curriculum and to enhance the safety awareness of teachers, laboratory technicians and students in performing related practical tasks in the school laboratories, a resource package with practical activities and safety guidelines related to these topics is developed by the Education Bureau.

Please click the following link to download the learning and teaching resources:
https://cd1.edb.hkedcity.net/cd/science/biology/resources/biotech_e.htm

Reference

- Curriculum and Assessment Guide of Biology (Secondary 4 - 6) 2007 (with updates in November 2015)

  https://www.edb.gov.hk/attachment/en/curriculum-development/kla/science-edu/Bio_C_and_A_Guide_updated_e_20151126.pdf

- Learning and Teaching Resource List

  https://www.edb.gov.hk/attachment/en/curriculum-development/kla/science-edu/ref-and-resources/L_and_T_Resources_List_(Bio).pdf

- For enquiries, please contact respective subject teacher(s) or class teacher(s) at school.

Thank you