

## **Biology curriculum guides (2023-2024)**

### **Curriculum aims**

The overarching aim of the Biology Curriculum is to provide biology-related learning experiences that enable students to develop scientific literacy, so that they can participate actively in our rapidly changing knowledge-based society, prepare for further studies or careers in the fields related to life science, and become lifelong learners in science and technology.

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.

### **Form 3**

Laboratory Safety

1. Food substances
2. Food test
3. Digestion and absorption
4. Diet and health
5. Infectious diseases
6. Non-infectious diseases
7. Biotechnology and medicine

### **Form 4**

Laboratory Safety

1. Studying biology & Nature of Science

2. Cellular structure
3. Movement of substances
4. Enzymes and metabolism
5. Food and humans
6. Nutrition in human
7. Gas exchange in humans
8. Transport in humans
9. Nutrition and Gas exchange in plants
10. Transport in plants
11. Cell division
12. Reproduction in plants
13. Reproduction in humans
14. Growth and development
15. Detecting the environment

## **Form 5**

### Laboratory Safety

1. Detecting the environment
2. Coordination in humans
3. Movement in humans
4. Ecosystem
5. Basic Genetics
6. Molecular genetics
7. Biotechnology
8. Biodiversity
9. Evolution
10. Homeostasis
11. Non-infectious Diseases and Disease Prevention
12. Body Defence Mechanism
13. Photosynthesis
14. Respiration

## **Form 6**

### Laboratory Safety

1. Regulation of water content
2. (osmoregulation)
3. Regulation of body temperature
4. Regulation of gas content in blood

5. Hormonal control of reproductive cycle
6. Biotechnology 1
7. Biotechnology 2