BIOLOGY

INTRODUCTION

The public assessment of this subject is based on the Curriculum and Assessment Guide (Secondary 4-6) Biology jointly prepared by the Curriculum Development Council and the Hong Kong Examinations and Assessment Authority. Candidates have to refer to the section on ‘Curriculum Framework’ in this Guide for the knowledge, understanding, skills and attitudes they are required to demonstrate in the assessment. Candidates are expected to have a general knowledge of the materials contained in the Science Curriculum (Secondary 1-3). The mathematical skills required in the assessment will not exceed those covered in the Compulsory Part of the Hong Kong Diploma of Secondary Education Mathematics Curriculum.

ASSESSMENT OBJECTIVES

The objectives of the public assessment of Biology are to evaluate candidates’ ability to:

1. recall and show understanding of facts, concepts and principles of biology, and the relationships between different topic areas in the curriculum framework;
2. apply biological knowledge, concepts and principles to explain phenomena and observations, and to solve problems;
3. formulate working hypotheses, and plan and perform tests for them;
4. demonstrate practical skills related to the study of biology;
5. present data in various forms, such as tables, graphs, charts, drawings, diagrams, and transpose them from one form into another;
6. analyse and interpret both numerical and non-numerical data in forms such as continuous prose, diagrams, photographs, charts and graphs – and make logical deductions and inferences and draw appropriate conclusions;
7. evaluate evidence and detect errors;
8. generate ideas; select, synthesise and communicate ideas and information clearly, precisely and logically;
9. demonstrate understanding of the applications of biology to daily life and its contributions to the modern world;
10. show awareness of the ethical, moral, social, economic and technological implications of biology, and critically evaluate biology-related issues; and
11. make suggestions, choices and judgments about issues affecting the individual, society and the environment.

MODE OF ASSESSMENT

The public assessment of Biology will consist of a public examination component and a school-based assessment component as outlined in the following table:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weighting</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Examination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper 1 Compulsory part of the curriculum</td>
<td>60%</td>
<td>2 hours 30 minutes</td>
</tr>
<tr>
<td>Paper 2 Elective part of the curriculum</td>
<td>20%</td>
<td>1 hour</td>
</tr>
<tr>
<td>School-based Assessment (SBA)</td>
<td>20%</td>
<td></td>
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</tbody>
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2012-HKDSE-BIO
PUBLIC EXAMINATION

Paper 1 comprises two sections: A and B. Section A consists of multiple-choice questions and carries 18% of the subject mark. Section B includes short questions, structured questions and an essay question, and it carries 42% of the subject mark. Candidates have to attempt all questions in Paper 1.

Paper 2 consists of structured questions set on the four elective topics of the curriculum. Candidates are to attempt questions from any two of the four electives.

SCHOOL-BASED ASSESSMENT (SBA)

School-based assessment (SBA) is compulsory for all school candidates. In the 2012 HKDSE, candidates will be assessed by their teachers on their performance of a wide range of skills involved in practical related tasks throughout S5 and S6.

Practical related tasks:

Practical related tasks here refer to laboratory work and fieldwork in Biology. Candidates will be required to carry out practical work including scientific investigations. In S5 and S6, they will be assessed in two ability areas: A and B. Ability area A carries 8% of the subject mark, while ability area B carries 12% of the mark. Details of the two ability areas are as follows:

Ability area A involves:
(a) organizing and performing practical work, including using suitable apparatus and equipment, and demonstrating the appropriate manipulative skills in carrying out the work;
(b) making accurate observations and measurements.

Ability area B involves:
(a) identifying the problem to be investigated and formulating a hypothesis, where applicable, and putting it into a testable form;
(b) devising a plan of investigation in accordance with the problem being investigated;
(c) recording and presenting results in an appropriate form;
(d) interpreting and discussing results, and drawing appropriate conclusions.

The table below summarises the percentage weighting and the minimum number of assessments required in S5 and S6 for the different areas of the SBA:

<table>
<thead>
<tr>
<th>Practical related task</th>
<th>S5</th>
<th>S6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability area A</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ability area B</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

For monitoring and authentication purposes, candidates are required to keep good custody of all their work in SBA until the publication of the HKDSE examination results.

2012-HKDSE-BIO
Private candidates need not complete the SBA component. Their subject result will be based entirely on their public examination result.

The detailed requirements, regulations, assessment criteria, guidelines and methods of assessment will be provided in the SBA Handbook for HKDSE Biology and Combined Science (Biology part) published by the Hong Kong Examinations and Assessment Authority.

**Non-practical related tasks:**

Starting from the 2014 HKDSE, candidates will also be assessed on non-practical related tasks in the SBA. Non-practical related tasks refer to assignments that constitute part of the learning activities provided to candidates. They should be aligned closely with the curriculum emphases (viz. scientific inquiry, science-technology-society-environment connections, nature and history of biology). Examples of such tasks include: information searching and report writing; survey studies, field-studies or site-visit reports; designing posters, pamphlets or webpages; writing articles; and building models or developing multimedia artefacts. Besides the understanding and application of biological knowledge and concepts, candidates’ generic skills (creativity, critical thinking skills, communication skills and problem-solving skills) will be assessed.

The implementation schedule of SBA is as follows:

<table>
<thead>
<tr>
<th>Year of examination</th>
<th>Implementation of SBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 &amp; 2013</td>
<td>Schools are required to submit SBA marks for the practical related component only. The mark of this component will contribute to 20% of the final subject mark.</td>
</tr>
<tr>
<td>2014 and thereafter</td>
<td>Schools will be required to submit SBA marks for both the practical and non-practical related components. The SBA marks for practical related tasks will constitute 14% of the final subject mark, and those for non-practical related tasks 6% of the final subject mark.</td>
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