HKDSE Biology & Combined Science (Biology) SBA

Teachers' Conference (2020/2021)

Date: 30 October 2021

Venue: School Hall, Lok Sin Tong Yu Kan Hing Secondary School, 3 Fu Yue Street, Wang Tau Hom

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A. SBA Requirements for 2023 DSE Bio and CS(Bio) SBA

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- The final SBA mark of a student composed of four marks:
  - ✓ the best two marks obtained in Area A regardless of types;
  - ✓ the best two marks obtained from different topics in Area B1;
  - ✓ the best two marks obtained from different topics in Area B2.

- On-line mark submission system will be used. Teacher should keep a record of the experiment list, task sheets and assessment records.

- Handling repeater / transfer / switch students
  SBA results obtained in S5 in the form school will not be counted. For both Biology and CS Biology, they will need to submit one A mark and one B mark.

- Language medium
  Please indicate the language medium used by the students in completing the reports. The language medium should following the school's own policy.

- For 2024, the same requirements for SBA will adopted for Biology. There will be no CS Bio.

- S6 submission
  - ✓ **Submission period: refer to school circular later**
  - ✓ Submit Mark Data File for Principal's endorsement
  - ✓ Submit student work:
    - > Marked reports of 6 students, chosen by the HKEAA, is to be submitted. Only those reports with marks submitted are required. There is no need to submit biological drawings or other reports which are not assessed for SBA.
    - > One file for each student (zip to one single file if there are more than one file) with size is to be submitted. File name convention: [subject Abbreviation][(6-digit student document number)].[file extension], e.g. Bio(123456).zip, CSBIO(234567).pdf, etc.
    - > Attach task sheet in the student work file for the convenience of checking by District Coordinators.
    - > The following points should be noted about the student work:
      - ☐ Please advice students to use ***dark colour ball pen*** to complete their work for scanning
      - ☐ ***Black and white scanning*** should be used instead of colour scanning.
      - ☐ Make sure that ***ALL images are upright***.
      - ☐ For each report, the ***mark should be should using 10 point scale***.
      - ☐ ***Attached the task sheet (and checklist if any)*** to the student work.
      - ☐ Put all the reports in one image/pdf file instead of 1 file 1 image.

- It has been noted that the some schools use very simple tasks for assessment of Area B. The task itself only involves simple observation that addresses a 'yes or no' question. There is not much experimental design, data presentation or analysis involved. As a result, not much good performances can be shown in these reports and the mark award should not exceed 5 marks. These experiments include:

  - ✸ If light / chlorophyll / carbon dioxide necessary for photosynthesis
  - ✸ If heat is produced during seed germination
  - ✸ Compare the air composition of inhaled air and exhaled air
  - ✸ Simple food tests for identification of unknown solutions

  Experiments of these types put emphasis on the demonstration of a certain phenomenon. They can be used as demonstration for teaching of theories or for assessment of Area A, but not appropriate for assessment of Area B.

B. Making Assessment

	A	B
Student's work	Performing practical work, including the following types of work: (a) investigative practical work (group work allowed) (b) microscopic examination (c) dissection of animals / animal organs (d) ecological field work (group work allowed) (e) biological drawing	Individual reports on investigative practical work including: Experimental Design (B1): • objective of investigation • design of investigation and its underlying principles Results and Discussion (B2): • presentation of findings • interpretation and discussion of results • conclusion
Assessment	Assess practical skills of individual students within each group during practical sessions according to the assessment criteria listed in the SBA Handbook	Mark individual investigation reports according to the assessment criteria listed in the SBA Handbook
Teacher's work	> Keep the assessment task sheets (with dates) > Keep assessment records for A > Mark students' written report	

Ability Area A – Practical skills

- Checklist should be developed for making assessment.
- **No student samples for Ability Area A will be collected. However, assessment records should be kept for handling of internal appeal cases before mark submission**.

Ability Area B – Report Writing

- For assessment on Ability Area B, teachers may choose to discuss with students the salient points in the design based on the generic guidelines provided on the task sheet before students write their design. Teachers may distribute the relevant task sheets to students in advance and this will not be considered as help given.
- **The design and planning of the investigation has to be completed within class time and under the supervision of the teacher**. For the part about discussion and conclusion, teachers may choose to let students complete the task within class time or take home.
- Shared data can be accepted if data are generated by data-logger (but leave room for students to put in title and axes for graphs if the data logger also generate graphs) or data are collected on a group basis, or data are compiled for statistical analysis.
- Teachers are advised to train their students for writing a full report even guiding questions are involved in the task sheets. For report that involves only Q & A, students' responses will be matched with the descriptors (P.5 and 6). If only simple and straightforward responses are involved, only basic performance will be fulfilled and the reports will not score high marks.
- Teachers are encouraged to widen students' experience by exposing them to various types of experiments (qualitative and quantitative) so that their analytical skills can be sharpened and reflected in the written exams.

C. Support from District Coordinators

- Teachers may submit the tentative task lists to the District Coordinators and seek advice from District Coordinators if needed.
- Teachers shall submit their experiment list and task sheets to the District Coordinators two weeks after the S5 submission. District Coordinators will provide feedback on the level of difficult if needed.
- District Coordinators will conduct school visit and collect feedback. 4 schools from each group will be selected randomly each year until all schools in the group list have been visited.

D. Other useful websites

1. References and resources for Biology, Science Education Section, EDB (http://www.edb.gov.hk/en/curriculum-development/kla/science-edu/ref-and-resources/biology.html)
2. EDB One-stop Portal for Learning and Teaching Resources – Science Education (http://minisite.proj.hkedcity.net/edbosp-sci/eng/home.html)
3. NSS Biology Edblog (http://edblog.hkedcity.net/nssbio)
4. Practical Biology of Nuffield Biology (http://www.nuffieldfoundation.org/practical-biology)
5. Serendip Studio – Hands-on activities for teaching biology to high school or middle school students (http://serendip.brynmawr.edu/sci_edu/waldron/)