

Education Bureau Circular No. 32/2024
Science Education Key Learning Area:
“Updated Science (Secondary 1 – 3) Curriculum Framework”
(Consultation Draft)

[Note: This circular should be read by-

- (a) Supervisors/Heads of all Government Schools, Aided Schools (including Special Schools), Caput Schools, Private Schools, and Schools under the Direct Subsidy Schemes – for action; and
- (b) Heads of Sections – for information.]

Summary

The purpose of this circular is to announce the “Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft) developed by the Curriculum Development Council (CDC) and to provide details regarding the related curriculum consultation.

Background

2. “The Chief Executive’s 2024 Policy Address” highlighted the promotion of STEAM (Science, Technology, Engineering, the Arts, and Mathematics) education in primary and secondary schools. The policy measures include the renewal of the junior secondary Science curriculum, strengthening the interface between the primary and secondary levels for enhancing students’ scientific thinking and fostering innovation. The updated curriculum will be implemented from the 2027/28 school year and schools may start piloting from the 2025/26 school year.

3. The Curriculum Development Council Committee on Science Education established the Ad Hoc Committee for the Revision of Science (Secondary 1 – 3) Curriculum (the Ad Hoc Committee) last year. This Committee has undertaken the curriculum review and updating task, incorporating views from various stakeholders, including experienced secondary school principals, teachers, and academics from tertiary institutions. In December 2024, the CDC Committee on Science Education submitted the “Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft) and the proposed arrangements for the curriculum consultation to CDC, which were accepted.

Details

Curriculum Renewal

4. The aforesaid Ad Hoc Committee has revised the Science (Secondary 1 – 3) curriculum based on the development trends of local, national and international science/STEAM education, and students’ future development needs. The revisions follow four major directions: “Enhancing Students’ Scientific Literacy”, “Deepening Students’ Understanding of Innovation and Technology (I&T) Applications”, “Strengthening Cross-disciplinary Connections, Fostering in Students the Spirit of Innovation”, and “Ensuring a Smooth Transition for Science Education between Primary and Secondary Levels”.

5. The updated Science (Secondary 1 – 3) curriculum framework is premised on “Enhancing Scientific Literacy, Fostering the Spirit of Innovation”, with “Scientific Inquiry” and “Cross-disciplinary Connections” as the curriculum emphases. The updated curriculum focuses on equipping students with essential scientific knowledge and skills, strengthening their understanding of science and I&T applications, fostering creativity, collaboration and problem-solving skills. It also encourages critical thinking and nurtures proper values and attitudes among students, thereby laying a solid foundation for lifelong learning in a rapidly evolving technological society.

6. The updated curriculum enriches learning across various science disciplines, including topics relating to earth science, aerospace science and sustainable development. It also enhances the content of scientific inquiry and cross-disciplinary learning, including applications of artificial intelligence, engineering practices, and data processing, facilitating students’ understanding of scientific and technological developments in the contemporary world and in the country.

Briefing Session

7. To help schools understand the “Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft) and the related support measures provided by the Bureau, a briefing session will be held. The details are as follows:

Date: 8 January 2025 (Wednesday)
Time: 2:00 p.m. to 4:30 p.m.
Venue: Lecture Hall, Hong Kong Science Museum,
2 Science Museum Road, Tsim Sha Tsui East, Kowloon



Schools are cordially invited to nominate teachers to attend the aforementioned curriculum briefing session. Teachers can register through the Training Calendar System of the Education Bureau (EDB) (Course Code: CSD020250233).

School Questionnaire Survey

8. Our Bureau will collect views from schools to refine the updated junior secondary Science curriculum framework (consultation draft). Schools are advised to refer to the “Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft) and the school questionnaire survey (See Annex). The relevant documents have also been uploaded to the website of the Science Education Section, EDB: <https://www.edb.gov.hk/jss>

9. Principals or their representatives (Science Education Key Learning Area Coordinator, Junior Secondary Science Subject Panel Head) are requested to complete the questionnaire and return the completed e-questionnaire in PDF format to the Science Education Section, EDB, via the “School Messaging Module (SMM)” of EDB **on or before 14 February 2025**.

Enquiries

10. For enquiries, please contact Mr CHAN Ka-wai of the Science Education Section, EDB, at 3698 3453.

Dr William LAM
for Secretary for Education

Science Education Key Learning Area
“Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft)
School Questionnaire Survey

Purpose

The purpose of this questionnaire is to collect views from schools on the “Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft) and the related support measures.

Background

2. “The Chief Executive’s 2024 Policy Address” highlighted the promotion of STEAM (Science, Technology, Engineering, the Arts, and Mathematics) education in primary and secondary schools. The policy measures include the renewal of the junior secondary Science curriculum, strengthening the interface between the primary and secondary levels for enhancing student’s scientific thinking and fostering innovation. The updated curriculum will be implemented from the 2027/28 school year and schools may start piloting from the 2025/26 school year.

3. The Curriculum Development Council Committee on Science Education established the Ad Hoc Committee for the Revision of Science (Secondary 1 – 3) Curriculum (the Ad Hoc Committee) last year. This Committee has undertaken the curriculum review and updating task, incorporating views from various stakeholders, including experienced secondary school principals, teachers, and academics from tertiary institutions. In December 2024, the CDC Committee on Science Education submitted the “Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft) and the proposed arrangements for the curriculum consultation to CDC, which were accepted.

Curriculum Document

4. With regard to the “Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft), please refer to the following website of the Science Education Section, EDB: <https://www.edb.gov.hk/jss>

**Submission of Questionnaire**

5. Each school is required to complete and return **ONE questionnaire**. School representatives should **enter information into the e-questionnaire in PDF format**, and submit the completed questionnaire to the Science Education Section, EDB, via the “**School Messaging Module (SMM)**” of EDB **on or before 14 February 2025 (Friday)**. The information provided by schools will be used solely by the CDC and EDB for the overall review of the Science (Secondary 1 – 3) Curriculum. All data will be handled confidentially and no school-specific information will be disclosed.

6. For enquiries, please contact Mr CHAN Ka-wai of the Science Education Section, EDB, at 3698 3453.

School Questionnaire Survey

Part A: School Information

School code:	
School name:	
Name of principal:	
Name of school contact person:	(Post:) (Contact number:)

Part B : Questionnaire

Please put a “✓” in the appropriate boxes (“□”) in this e-questionnaire and provide other comments where appropriate.

Please provide your school’s opinions on the “Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft) in questions (1) to (4) below.

1. Does your school agree with the revision directions of the updated curriculum?

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
(i) Enhancing students’ scientific literacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Deepening students’ understanding of I&T applications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Strengthening cross-disciplinary connections, fostering in students the spirit of innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Ensuring a smooth transition for science education between primary and secondary levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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2. Does your school agree with the curriculum aims of the updated curriculum?

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
(i) Sustain and develop curiosity and interest in science and appreciate the wonder of nature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Develop a basic understanding of the nature of science and recognise the usefulness and limitations of science and the evolutionary nature of scientific knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Acquire scientific knowledge and scientific inquiry skills to conduct scientific reasoning and scientific inquiry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Use scientific models and the language of science to communicate science-related ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(v) Develop the ability to integrate and apply knowledge and skills of science and other related disciplines to foster creative problem solving and innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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		Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
(vi)	Recognise the connections between science, I&T, the environment, society and engineering, and think critically about science-related issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vii)	Be aware of the impact of human activities on the environment and act sensibly for its sustainable development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(viii)	Become lifelong learners in science for personal development, and prepare for further studies or future careers in science, technology and engineering related fields	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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3. Does your school agree with the curriculum emphases of the updated curriculum?

		Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
(i)	Scientific inquiry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii)	Cross-disciplinary connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. With regard to the updates to the junior secondary Science curriculum, does your school agree with the following statements?

		Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
(i)	The focuses of the learning content listed in the curriculum are specific and clear.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii)	The depth and breadth of the learning content listed in the curriculum are appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii)	The suggested learning and teaching activities and the “Key Practical Tasks” listed in the curriculum are practical and feasible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other comments / suggestions:

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Please provide your school's opinions on the relevant support measures in questions (5) to (9) below.

5. Which of the following areas of professional training do you think curriculum leaders need the most? (Choose up to three items)
- Understanding and Interpreting the Curriculum
 - Curriculum Planning
 - Homework and Assessment Policies
 - Curriculum Resources Management
 - Others (please specify): _____
6. Which of the following areas of professional training do you think teachers need the most? (Choose up to three items)
- Understanding and Interpreting the Curriculum
 - Designing quality practical activities
 - Designing quality assignment / assessment tasks
 - Planning “Cross-disciplinary Connections” learning activities
 - Implementing e-learning and teaching (including the use of Artificial Intelligence (AI))
 - Planning science learning activities related to national security education and values education
 - Others (please specify): _____
7. Which of the following learning and teaching resources do you think teachers need the most? (Choose up to three items)
- Video-based learning and teaching resources
 - Learning activities using mobile devices
 - Learning and teaching activities for junior secondary Science using AI
 - Classroom practices / Assessment items
 - Experiment worksheets
 - Others (please specify): _____

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8. The updated curriculum is expected to be implemented starting from Secondary 1 in the 2027/28 school year. Does your school plan to pilot the learning activities of the updated curriculum in the 2025/26 school year?

Our school will pilot the following items: (Multiple items may be selected. For details of each item, please visit the website : <https://www.edb.gov.hk/jss>)

Using class practice worksheets / assessment items that align with the updated curriculum

Piloting the Key Practical Tasks / suggested learning and teaching activities of the updated curriculum

Conducting cross-disciplinary learning activities with reference to the materials of the “Science (S1-3) STEAM learning modules”

Participating in the “AI for Science Education” funding programme to develop and conduct trial teaching of AI-assisted science learning activities

Other pilot arrangements (please specify): _____

Our school will not pilot the learning content of the updated curriculum for the following reasons:

Other Comments

9. Other comments or suggestions from your school regarding the “Updated Science (Secondary 1 – 3) Curriculum Framework” (Consultation Draft):

Please return the completed questionnaire to the Science Education Section, EDB, via the School Messaging Module (SMM) of EDB on or before 14 February 2025 (Friday).

– END –

Thank you for your opinions!