



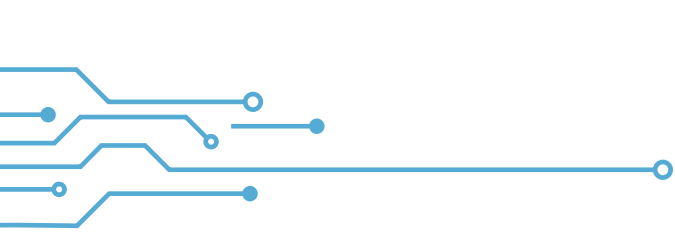
# Blueprint for Digital Education Development in Primary and Secondary Schools



## Supplements:

- **AI Literacy Learning Framework for Primary and Secondary Schools**
- **Guide to Using AI in Teaching in Primary and Secondary Schools**

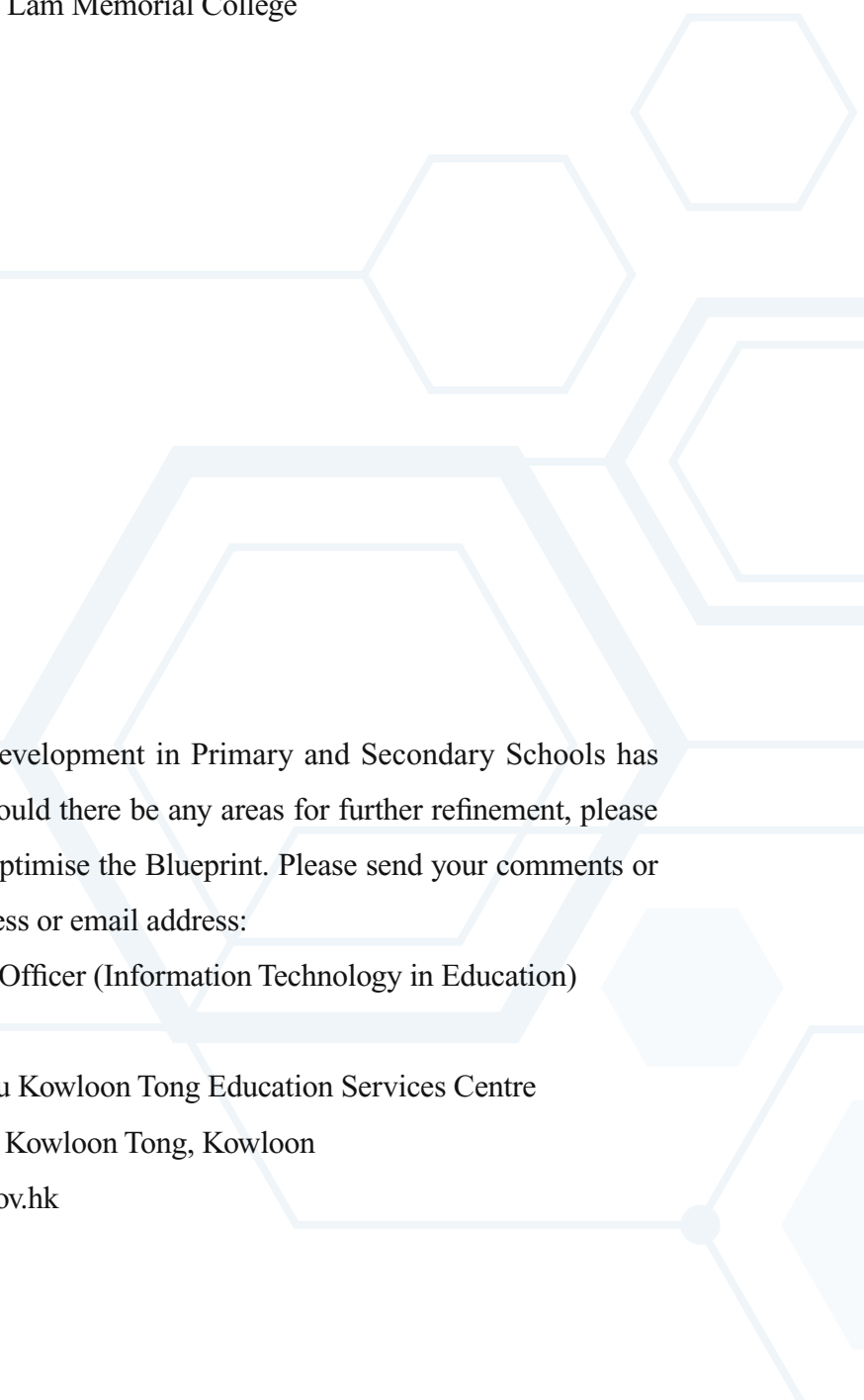




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The names of the students and their respective schools are listed below, from left to right as the images appear:

- CHEN Yin-long, Hong Kong Red Swastika Society Tai Po Secondary School
- CHAN Yeuk-lai, S.K.H. Yan Laap Primary School
- TANG Yuet-hei, S.K.H. Yuen Chen Maun Chen Jubilee Primary School
- LAI Tak-ka, Buddhist Sum Heung Lam Memorial College



The Blueprint for Digital Education Development in Primary and Secondary Schools has been prepared with the utmost rigor. Should there be any areas for further refinement, please do not hesitate to advise, so as to help optimise the Blueprint. Please send your comments or suggestions to the following postal address or email address:

Chief Curriculum Development Officer (Information Technology in Education)

Postal address: 4/F, East Block,

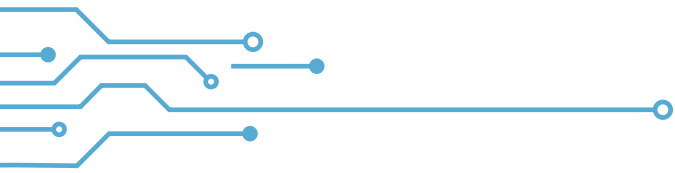
Education Bureau Kowloon Tong Education Services Centre

19 Suffolk Road, Kowloon Tong, Kowloon

Email address: [blueprint@edb.gov.hk](mailto:blueprint@edb.gov.hk)

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# Foreword



## Foreword

In the face of the global digital transformation trend, we must proactively answer the call of the times: “What education should do in the age of AI?”<sup>1</sup>. In alignment with our country’s support for Hong Kong’s positioning as an international innovation and technology (I&T) centre, primary and secondary education in Hong Kong must actively embrace the digital era and make early preparation. Therefore, emphasising forward-looking planning, continuous optimisation, and keeping pace with the times, the Education Bureau (EDB) drives all schools to comprehensively implement artificial intelligence (AI) education for students (i.e. “AI for all schools” and “AI for all students”), holistically cultivating students’ digital literacy, innovative thinking, and capability to adapt to the future society.

In recent years, our country has promulgated a series of policy documents, including the *2024-2035 Master Plan on Building China into a Leading Country in Education (the Master Plan)* and the *White Paper on Smart Education in China*, both released in 2025, as well as the “*AI + Education*” *Action Plan* in 2026. These documents emphasise leveraging digital empowerment to drive the digital transformation of education. The nurturing of innovative talents has also become one of the core priorities in the national *15th Five-Year Plan*<sup>2</sup>. In sync and in tune with the national policies, the Government of the Hong Kong Special Administrative Region (HKSAR) put forward development targets for digital education in primary and secondary schools in Hong Kong in the Chief Executive’s 2024 and 2025 Policy Addresses. Subsequently, the EDB established “The Steering Committee

<sup>1</sup> “What education should do in the age of AI?” is excerpted from the keynote speech “Education Transformation and Development in the Intelligent Era” delivered by Minister Huai Jinping, the Ministry of Education of the People’s Republic of China, at the 2026 World Digital Education Conference. For the full text, please visit: <https://wdec.smartedu.cn/en/new>.

<sup>2</sup> Its full name is the *Outline of the 15th Five-Year Plan for National Economic and Social Development of the People’s Republic of China*.

on Strategic Development of Digital Education (SCSDDE)” in 2025. Drawing upon Hong Kong’s experience in promoting I&T and STEAM (Science, Technology, Engineering, Arts and Mathematics) education, and through extensive gathering of views from various stakeholders, the SCSDDE proposed recommendations for the development of digital education in primary and secondary schools in Hong Kong. Upon adopting these recommendations, the EDB commissioned the Curriculum Development Council to prioritise learning and teaching (L&T), leading to the compilation of the *Blueprint for Digital Education Development in Primary and Secondary Schools* (the Blueprint).

To dovetail with the national strategy of invigorating the country through science and education, the Blueprint adheres to the core philosophy of “students as the foundation, teachers as the profession, schools as the base, and society as the partner” and formulates comprehensive and forward-looking key focuses for development and strategies for digital education development. It aims to enhance the quality of education, promote educational equity, consolidate Hong Kong’s advantages as an international education hub and contribute to building our country into a leading country in education.





# **Vision, Overall Objectives and Specific Indicators**

# I

## Vision, Overall Objectives and Specific Indicators

### 1.1 Vision

To lay the foundation for Hong Kong to become a world-class hub for digital education, we draw on the combined Chinese and foreign educational wisdom, align with the strategy of invigorating the country through science and education, and adopt a student-centred approach to drive comprehensive educational innovation systematically. In doing so, we seek to foster a paradigm shift in learning, teaching and assessment, nurturing innovative lifelong learners equipped with both digital literacy and humanistic qualities, thereby contributing to the development of our country and society.



## 1.2 Overall objectives

- (1) **Enhancing students' digital literacy:** Cultivating students into lifelong learners equipped with digital literacy, computational thinking, creativity and a sense of ethical responsibility, enabling them to make effective use of digital technologies to solve problems in a complex and rapidly changing era.
- (2) **Strengthening teacher professionalism:** Comprehensively enhancing teachers' digital pedagogical capabilities, driving a paradigm shift towards "student-centred" personalised learning, and integrating digital technologies into the eight Key Learning Areas and values education.
- (3) **Optimising infrastructure and resource support:** Constructing secure, efficient, inclusive and equitable digital education infrastructure, while developing high-quality digital learning resources and support that align with local curriculum guides.
- (4) **Fostering cross-sector collaboration, co-creating a digital education ecosystem:** Establishing a collaborative ecosystem spanning the Government, schools, tertiary institutions, related sectors, families and the community, while forging links with the Chinese Mainland and the international community to drive educational innovation.

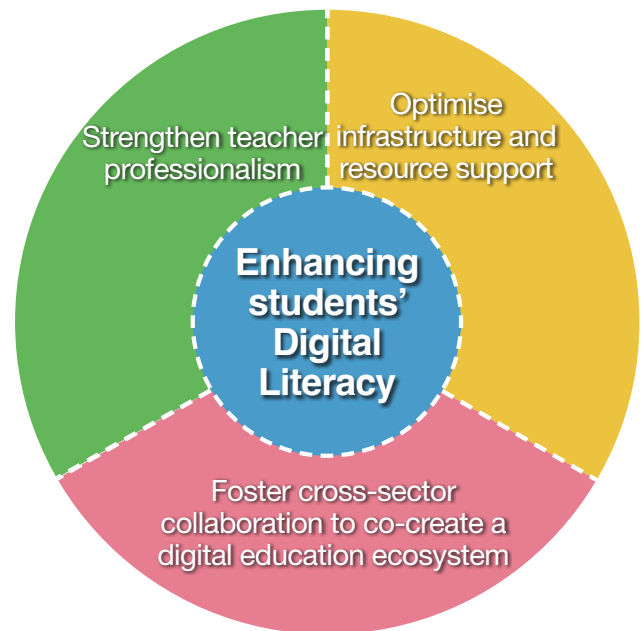


Figure 1 Overall objectives

## 1.3 Specific indicators

Digital education in primary and secondary schools<sup>3</sup> covers a broad range of areas, including school planning, digital infrastructure, teacher empowerment and student literacy. In light of the rapid development of digital technology, the Blueprint will, in the short-to-medium term, prioritise whole-school digital education planning, construct digital education infrastructure, and build a digitally-empowered professional team of teachers. It is expected that, through these efforts, the goal of enhancing students' AI literacy holistically will be progressively realised, achieving the following implementation outcomes:

### **School level — Conduct holistic digital education planning**

- All primary and secondary schools in Hong Kong will incorporate development strategies for digital education and AI education into their School Development Plans, and establish clear school-based implementation timetables to drive a “student-centred” paradigm shift in learning, teaching, and assessment.

### **System level — Construct digital education infrastructure**

- Collaborate with various partners to establish a comprehensive digital education learning resource platform for primary and secondary schools tailored to the local curriculum, while connecting with and bringing in quality educational resources from our country and around the world.

### **Teacher level<sup>4</sup> — Build a digitally-empowered professional teaching team**

- Ensure that all primary and secondary school teachers in Hong Kong complete foundational training on “AI Literacy” and “AI + Subjects”, while all school leaders complete training in “AI Leadership” and advanced professional development, laying a solid foundation for promoting professionalism in digital education.

<sup>3</sup> In the Blueprint, “digital education” broadly refers to all educational activities related to digital technologies, including acquiring knowledge about digital tools or cutting-edge technologies, as well as using digital technologies as a tool to support L&T. Whether it is “learning about AI knowledge” or “using AI tools to support L&T”, both fall within the advanced applications of digital education in the context of technological development. Therefore, the term “digital education” in the Blueprint, in principle, encompasses the relevant content of AI education.

<sup>4</sup> Including principals and teachers

**Student level — Enhance digital literacy holistically**

- Fully implement the *AI Literacy Learning Framework for Primary and Secondary Schools*, integrating digital technologies into learning both within and beyond the classroom and expanding the range of AI application scenarios to enrich students' learning experiences, so as to cultivate their critical thinking, creativity and problem-solving skills, promoting self-directed learning, strengthening their AI literacy (including cyber security awareness and privacy protection concepts), thereby facilitating lifelong learning.

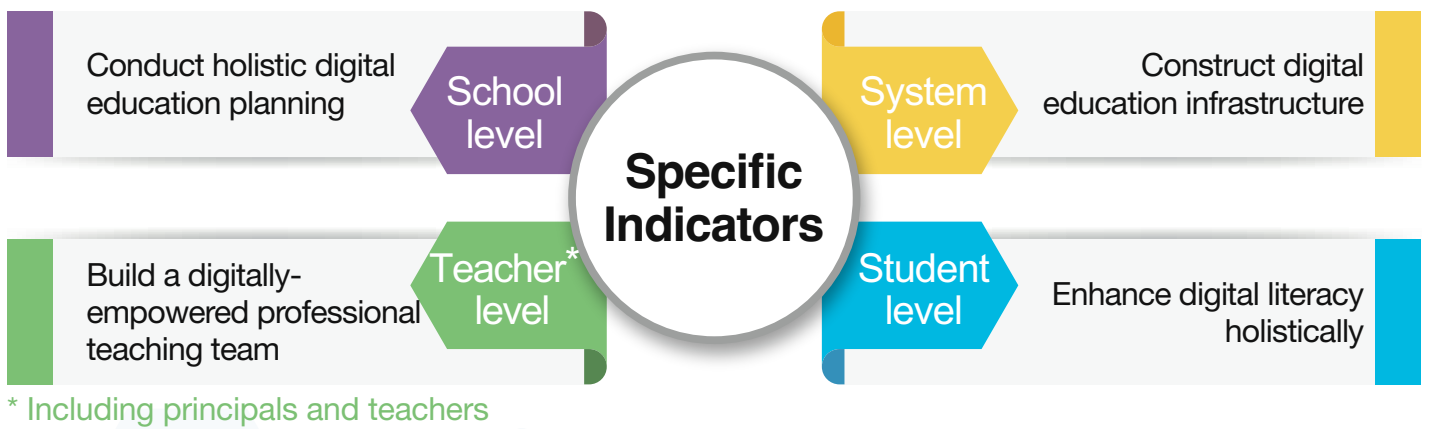
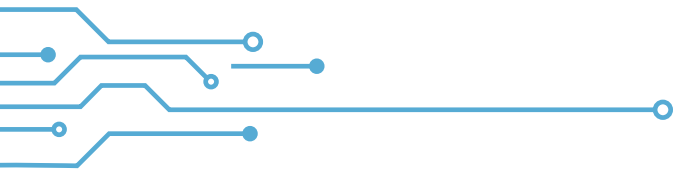


Figure 2 Specific Indicators



The image features a large, stylized Roman numeral 'III' in a dark blue color. The numeral is filled with a pattern of binary code (0s and 1s) in a lighter blue shade. The background is a light blue gradient with a complex, abstract digital pattern of overlapping lines and shapes, creating a sense of depth and technology.

# III

**Development Positioning and  
Principles of Digital Education  
in Primary and Secondary  
Schools in Hong Kong**

## II

# Development Positioning and Principles of Digital Education in Primary and Secondary Schools in Hong Kong

Building on our long-standing advantage in mathematics, science and technology education, digital education in Hong Kong primary and secondary schools is guided by principles such as blending Chinese and foreign educational wisdom, focusing on nurturing people as the core, promoting equitable and inclusive access, bridging the past and the future, upholding the core mission of “cultivating values and nurturing people”, and advocating cross-sector collaboration. These principles will propel the development of primary and secondary education to new heights.

## 2.1 Blending Chinese and foreign educational wisdom, fulfilling the bridging role

- Education in Hong Kong enjoys the unique advantage of “one country, two systems”: our educational development advances in tandem with our country’s grand vision. The national 15th Five-Year Plan explicitly reaffirms support for Hong Kong’s development into an international I&T centre. In addition, the Master Plan on Building China into a Leading Country in Education sets out the strategy of invigorating the country through science and education, deepening implementation of the strategy for educational digitalisation and leveraging AI to drive educational transformation. As a city within the Guangdong-Hong Kong-Macao (Greater Bay Area), Hong Kong is well-positioned to pursue deep integration and synergistic development with the Mainland (particularly with cities in the Greater Bay Area) in the field of digital education<sup>5</sup>.
- The development of digital education in primary and secondary schools will integrate Hong Kong’s internationalised background with Chinese culture to actively respond to the prevailing currents of national development and the broader imperatives of the times. It will develop a model of digital education with distinctive Hong Kong characteristics, while closely aligning with the curriculum guides and directions for curriculum renewal promulgated by the Curriculum Development Council to strengthen the learning and application of AI in basic education.

<sup>5</sup> On 1 September 2025, the World Intellectual Property Organization announced the top 100 clusters in the *Global Innovation Index 2025*, in which the “Shenzhen-Hong Kong-Guangzhou” cluster ranked first globally. For details, please visit <https://www.info.gov.hk/gia/general/202509/01/P2025090100586.htm?fontSize=2>

## 2.2 Nurturing people as the core, using technology as an auxiliary tool

- In the era of digital education, primary and secondary digital education remains anchored in the fundamental education mission of “cultivating values and nurturing people” and the use of digital technology as an auxiliary tool, adhering to the principle of “human mind as the mainstay, with the computer in a supporting role”. With students at the helm, knowledge is constructed through interaction with digital tools, fostering proper values and all-round qualities. At the same time, students’ empathy, sense of responsibility and resilience in the digital environment are to be strengthened, enabling them to use AI in a reasonable and responsible manner. This approach also seeks to sharpen core 21st-century competencies such as innovation, collaborative problem-solving and critical thinking, to equip them to meet future challenges.

## 2.3 Equitable and inclusive access, supporting diverse needs

- Hong Kong has long received high international recognition in educational equity<sup>6</sup>. The development of digital education in primary and secondary schools will also adopt this as a principle, ensuring that all students (including those with special educational needs, those from different socio-economic backgrounds, and those with diverse learning needs) can enjoy equitable access to and effective use of digital learning resources.

## 2.4 Bridging past and future, building on existing strengths

- With continuous resource investment by the HKSAR Government, Hong Kong has accumulated a wealth of experience and achieved substantial results in Information Technology and I&T education, and STEAM education<sup>7</sup>. The development of digital education in primary and secondary schools is positioned to further promote successful school-based practices by leveraging the strengths of resources and platforms such as the Quality Education Fund (QEF) and the Hong Kong Education City (HKEdCity)<sup>8</sup>. Complementing these efforts, the enhanced School

<sup>6</sup> In the 2022 Programme for International Student Assessment (PISA), Hong Kong performed exceptionally well in educational equity, ranking second among countries or economies with high academic achievements.

<sup>7</sup> In recent years, the EDB has been dedicated to advancing I&T education and STEAM education, enabling students to engage in crosscurricular learning and apply emerging IT, thereby enhancing their creative thinking and innovation capabilities.

<sup>8</sup> HKEdCity, formerly known as Hong Kong Information Technology Education City, was established in 2000 with funding from the Quality Education Fund, and became a wholly-owned company of the HKSAR Government in 2002. The HKEdCity operates a one-stop professional education portal (<https://www.edcity.hk/home/en/>), which integrates educational resources and interactive communities, with the aim of encouraging the education sector to make full use of IT in support of curriculum development, thereby enhancing the effectiveness of L&T.

Development and Accountability (SDA) framework will serve as further lever to accelerate and enhance the effectiveness of the digital transformation in education.

- The EDB will, together with the Curriculum Development Council, continue to deepen our collaboration with various stakeholders, such as tertiary institutions, technology enterprises and professional bodies, and capitalise on the HKEdCity’s role as a “superconnector” to develop a curriculum resource platform tailored to Hong Kong school curriculum, thereby co-creating a mutually beneficial AI education ecosystem.

## 2.5 Forward-looking innovation: Committed to “Cultivating Values and Nurturing People”

- Through forward-looking policies, the HKSAR Government ensures the multidimensional development of AI. The promotion of deep integration and innovative application of AI across sectors<sup>9</sup>, as mentioned in the Chief Executive’s 2025 Policy Address, along with the major policy directions for AI+ outlined in the 2026-27 Budget<sup>10</sup>, presents significant opportunities for digital education.
- The EDB will drive schools to actively explore the application and innovation of emerging technologies, such as AI and big data, in teaching and assessment, while ensuring that schools’ digital education development firmly adheres to proper values and ethics, and complies with safety frameworks and mechanisms including the *Personal Data (Privacy) Ordinance*, the *Hong Kong Generative Artificial Intelligence Technical and Application Guideline*, and the *Cybersecurity Guidebook for Schools in Hong Kong*.

The Curriculum Development Council has formulated the strategies and measures set out in the Blueprint based on the recommendations of the SCSDDE and in accordance with the positioning and principles of educational development in Hong Kong.

<sup>9</sup> Examples of relevant measures include earmarking \$1 billion in the 2025-26 Budget to establish the Hong Kong AI Research and Development Institute, with a focus on promoting upstream AI research and development (R&D), the transformation of midstream and downstream R&D outcomes, and the exploration of application scenarios.

<sup>10</sup> Examples of relevant measures include establishing the “Committee on AI+ and Industry Development Strategy”, promoting initiatives such as “Empowering Industries through AI”, “AI Training for All” and “Empowering Public Services through AI”, as well as developing infrastructure to scale up computing capacity.



# **Four Key Focuses, Ten Strategies**

# III

## Four Key Focuses, Ten Strategies

### 3.1 Key focuses for development

- At present, schools in Hong Kong have generally established a solid IT education infrastructure and pedagogical foundation. As such, digital education is not an entirely new initiative. Schools can build upon this existing foundation to further plan and implement digital education.
- In 2025, the HKSAR Government established the SCSDDE to advise on the promotion of digital education in primary and secondary schools. In response to the resource needs of digital education, the EDB has earmarked \$2 billion under the QEF to support the implementation of various digital education strategies.
- According to the recommendations of the SCSDDE, there are four key development focuses:
  - (I) Nurturing talents with both digital literacy and humanistic qualities
  - (II) Strengthening teacher training to drive digital transformation of education
  - (III) Optimising infrastructure to build smart campuses
  - (IV) Promoting cross-sector collaboration to co-create a digital education ecosystem
- In response to the rapid development of AI and educational technology, as well as the practical context of education in Hong Kong, the Blueprint formulates ten implementation strategies aligned with the above key focuses for development. These strategies will be dynamically adjusted as needed and optimised in a timely manner to keep pace with evolving circumstances.
- The implementation strategies cover short-to-medium term measures and key action points in order to bring the benefits of AI-empowered education to teachers and students as soon as possible, thereby reducing workload and enhancing capacity in the school sector.

- As mentioned above, Hong Kong’s digital education focuses on AI education. This includes learning AI-related knowledge, skills, values and attitudes (AI education), and the application of AI in various L&T contexts (AI in education).
- The Curriculum Development Council will review the implementation of the strategies with relevant committees in a timely manner, formulate appropriate action plans, and offer advice to relevant councils and committees as necessary.

### 3.2 Four Key Focuses, Ten Strategies

The four key development focuses and ten implementation strategies for promoting the digital transformation of education are tabulated below.

Key focus	Implementation strategy
(I) Nurturing talents with both digital literacy and humanistic qualities	(1) Formulate the <i>AI Literacy Learning Framework for Primary and Secondary Schools</i> to systematically cultivate knowledge, skills and proper values related to digital technology in students (2) Strengthen Mathematics, Science and Technology Education to enhance students’ I&T capabilities (3) Integrate learning elements related to digital education into the primary and secondary curricula organically, promote the “AI + Curriculum”, and issue a guide to implement a human-AI collaborative learning mode
(II) Strengthening teacher training to drive digital transformation of education	(4) Formulate teacher professional training requirements for digital education (5) Provide tiered, diversified professional development activities in digital education to strengthen schools’ professional capacity to lead change and pedagogical innovation
(III) Optimising infrastructure to build smart campuses	(6) Promote the development of smart campuses and actively explore how AI can assist schools in handling administrative work, to reduce workload, enhance capacity, and improve school governance and efficiency (7) Leverage the enhanced SDA framework to drive school improvement and enable schools to refine their implementation of digital education (8) Strengthen support services, provide resources, and build a platform for digital education learning resources
(IV) Promoting cross-sector collaboration to co-create a digital education ecosystem	(9) Promote home-school co-operation to jointly cultivate proper values and good attitudes in students (10) Bring together various stakeholders, including professional bodies, to jointly build a digital education ecosystem for primary and secondary schools

Table 1 Four Key Focuses, Ten Strategies

## Key Focus (I)

### Nurturing talents with both digital literacy and humanistic qualities

This key focus is grounded in the principles of students' learning and developmental patterns, with a focus on nurturing their mastery of AI-related knowledge, skills, values and attitudes. It enables students to use AI as an assistant to empower their learning, and develop higher-order thinking, cross-disciplinary integration and innovation capabilities, helping them to become thoughtful, aspirational and innovative talents. It also strengthens students' questioning, communication and collaboration skills, enabling them to make good use of technological tools, master them, and not become dependent on them.

Under Key Focus (I), we put forward three strategies and their corresponding key action points, as elaborated below:

#### **Strategy (1) Formulate the *AI Literacy Learning Framework for Primary and Secondary Schools* to systematically cultivate knowledge, skills and proper values related to digital technology in students**

#### Key Action Points

- 1(i) The *AI Literacy Learning Framework for Primary and Secondary Schools* is released to systematically advance AI education, enabling students to use AI responsibly in both their studies and daily lives. This includes raising their awareness of safeguarding cybersecurity, AI security, and data security, thereby putting into practice the spirit of “Technology for Good with Humanistic Qualities”.
- 1(ii) To nurture students' habits of appropriate use of digital tools, the Department of Health (DH) will issue updated guidelines to address the impact of social media on the mental health of children and adolescents. The EDB will take appropriate follow-up actions, including briefing sessions anticipated to be arranged within the 2026/27 school year to assist the school sector in implementing the guidelines.

- 1(iii) Adhering to the principle of “Inclusive and Equitable”, every school will arrange and/or organise diversified learning activities for students, such as on-campus and off-school. I&T activities, exhibitions, award schemes and Mainland exchange programmes, to further foster the atmosphere for digital technology learning on campus.
- 1(iv) Personalised learning support should be strengthened. All primary and secondary schools across Hong Kong will establish and make effective use of school-based student talent pool to identify students’ potential, and systematically discover and nurture those who demonstrate potential for, or a keen interest in, I&T. Through diversified learning activities, such as participation in talent development programmes, competitions, cross-territory training, and internships offered by the Hong Kong Academy for Gifted Education (HKAGE)<sup>11</sup>, students of high-calibre and potential can be nurtured. At the same time, schools are supported in applying AI technologies to address students’ diverse learning needs and cater for students with special educational needs, providing opportune intervention to promote educational equity and inclusion.

### Strategy (2) Strengthen Mathematics, Science and Technology Education to enhance students’ I&T capabilities

#### Key Action Points

- 2(i) The EDB and the Curriculum Development Council will continue to optimise the Mathematics, Science and Technology Education curricula at the primary and secondary levels, promote cross-subject project learning, and encourage the showcasing of learning outcomes, to enable students to cultivate their computational thinking and logical reasoning skills from an early age and to lay a solid foundation in mathematics and science. To this end, we will:
- launch the *Information and Innovation Technology Curriculum Framework for Primary Schools* in the 2026/27 school year to strengthen the interface between primary and secondary Technology Education;

<sup>11</sup> For details regarding the Hong Kong Academy for Gifted Education (HKAGE), please visit <https://www.hkage.edu.hk/en-us>.

- provide guidelines in the 2026/27 school year to strengthen mathematical modelling<sup>12</sup> learning elements in the primary and secondary Mathematics curricula; and
- update the curricula of senior secondary Science subjects in the 2026/27 school year to strengthen scientific inquiry and I&T learning elements.

2(ii) By the end of 2026, the recommendations on the curriculum structure for implementing senior secondary Science subjects and the Extended Part of Mathematics will be announced, in order to create favourable conditions that facilitate students taking multiple Science subjects and the Extended Part of Mathematics concurrently.

**Strategy (3) Integrate learning elements related to digital education organically into the primary and secondary curricula, promote “AI + Curriculum”, and issue a guide to implement a human-AI collaborative learning mode**

#### Key Action Points

- 3(i) The *Guide to Using AI in Teaching in Primary and Secondary Schools* is released to establish principles and norms for teachers’ use of AI tools in teaching, and to support them in applying AI tools in an appropriate and timely manner across different subjects / cross-disciplinary areas, thereby empowering their teaching.
- 3(ii) The “AI + Curriculum” will be promoted to consolidate students’ foundational subject knowledge and skills to harness AI for learning. In the 2026/27 and 2027/28 school years, various curriculum documents (e.g. Chinese Language Education, English Language Education, Science Education, Technology Education, Arts Education) and related examples will be updated in phases to introduce AI learning elements, with a view to facilitating human-AI collaboration and enhancing learning effectiveness. Schools are required to systematically integrate AI learning and application into the design of learning activities and assessment tasks across all Key Learning Areas, subjects, and cross-disciplinary areas (e.g. STEAM education, values education and project learning).

<sup>12</sup> Mathematical modelling refers to the method of using mathematics to express and solve real-life problems, with an emphasis on the real-world application of mathematics.

- 3(iii) Through values education<sup>13</sup> and related learning experiences, proper values including responsibility, integrity, law-abidingness, empathy, etc. are further cultivated in students. Students are also reminded to stay vigilant regarding issues, such as cyberbullying and the discernment of the authenticity of information.
- 3(iv) Through various schemes, such as the “AI for Science Education” Funding Programme<sup>14</sup>, school visits and learning circles, practical experiences are consolidated to promote good teaching exemplars. A collection of school examples through the “AI for Science Education” Funding Programme will be produced within the 2026/27 school year for teachers’ reference.

<sup>13</sup> For details on values education, please refer to the Values Education Curriculum Framework (2026) at [https://www.edb.gov.hk/tc/curriculum-development/4-key-tasks/moral-civic/ve\\_curriculum\\_framework2026.html](https://www.edb.gov.hk/tc/curriculum-development/4-key-tasks/moral-civic/ve_curriculum_framework2026.html) (Chinese version only).

<sup>14</sup> To tie in with the Chief Executive’s proposal in the 2024 Policy Address to continuously promote STEAM education in primary and secondary schools, including supporting teachers in the use of AI in teaching, the EDB continues to enhance IT education and promote the close integration of I&T (including AI) with education. Against this background, the EDB has launched the “AI for Science Education” pilot programme in junior secondary Science to support schools in integrating AI into L&T, strengthening AI education. Supported by the QEF, the programme enables successful applicant schools to enhance their Science teachers’ capacity in AI-assisted teaching. It encourages schools to arrange for teachers to participate in professional development programmes and conduct classroom practice, promoting pedagogical innovations and enhancing students’ learning effectiveness. For details of the programme, please refer to EDB Circular Memorandum No. 227/2024 or visit <https://www.edb.gov.hk/en/curriculum-development/kla/science-edu/ai-for-sci.html>.

## Key Focus (II)

### Strengthening teacher training to drive digital transformation of education

Driven by rapid technological advancement, AI presents a good opportunity to reshape pedagogical models, with teacher training being pivotal to the effective implementation of AI empowered learning and teaching. To this end, the training provided encompasses various themes, domains, and modes, enabling school leaders and teachers to participate in professional development programmes and activities tailored to their respective positions and subject specialisms. The targeted training, in turn, supports school-based planning and coordination, and advances digital education, facilitating a “whole-school approach” and “full-coverage” approach to digital transformation of education.

Under Key Focus (II), we put forward two strategies and their corresponding key action points, as elaborated below:

#### Strategy (4) Formulate teacher professional training requirements for digital education

##### Key Action Points

- 4(i) Building on the existing Continuing Professional Development (CPD) policy for teachers, teachers are required to complete a minimum of 30 hours of training in digital education within each three-year CPD cycle of 150 hours. Such training can be provided by the EDB, teacher education universities and other tertiary institutions, school sponsoring bodies, professional bodies, or schools, covering various domains, such as “AI Literacy”, “AI + Subjects” and “AI Leadership”. This is to equip teachers of all subjects and school leaders to keep pace with the times and harness AI to empower teaching and school management.

- 4(ii) Schools may, in accordance with their school contexts and actual teaching needs, flexibly deploy resources to support leaders responsible for co-ordinating digital education and teachers of various subjects/groups in meeting the digital education training requirements within each three-year CPD cycle. This may include arranging school-based or cross-school teacher training.
- 4(iii) In respect of pre-service training, teacher education universities will incorporate digital education into the compulsory component of their Bachelor of Education programmes or Postgraduate Diploma in Education programmes, and students must pass the relevant assessments. The EDB will maintain ongoing communication with teacher education universities to strengthen the relevant training elements, equipping prospective teachers with digital education literacy and professional competencies.
- 4(iv) The EDB will, through enhancing training content on AI and other digital technologies, strengthen school leaders' and middle management's competence in the relevant areas, so as to promote the effective application of digital technology in schools.
- 4(v) The EDB will continue to promote the Award for Education Innovation under the Chief Executive's Award for Teaching Excellence to recognise outstanding teachers with professional competence and an innovative spirit, and have demonstrated the effectiveness of innovative education. Excellent teaching practices are also promoted, and the school sector is encouraged to explore teaching practices with innovative thinking, such as integrating AI/digital/technology, to enhance the quality of L&T.

**Strategy (5) Provide tiered, diversified professional development activities in digital education to strengthen schools' professional capacity to lead change and pedagogical innovation**

**Key Action Points**

- 5(i) Tiered, diversified, all-encompassing and systematic teacher professional development activities will be organised for in-service teachers in different positions to promote the sharing of good experiences in AI, including:
- “AI Literacy” — This covers different levels, such as “Basic Application” and “Advanced Level”, and is suitable for all teachers to strengthen their professional capacity.
  - “AI + Subjects” — Relevant programmes are designed to enable teachers of various subjects and cross-disciplinary areas to “integrate and innovate” their pedagogical paradigms.
  - “AI Leadership” — Relevant programmes are suitable for principals and teachers responsible for co-ordinating digital education, with a view to strengthening their capacity to lead change.
- 5(ii) Learning Community: The Digital Education Centre of Excellence (CoE)<sup>15</sup> of the EDB enhances on site professional support for schools. Through activities such as teaching demonstrations and lesson observations, it promotes teaching practices and examples in the application of AI and other digital technologies, deepens professional exchange and collaboration, and encourages the school sector to set up various types of learning communities. Examples include “Digital Education Teacher Groups” organised by school sponsoring bodies or schools within the same district, as well as “Digital Education Teacher Networks” formed across schools and by professional bodies.
- 5(iii) Diversified Professional Activities: The EDB will continue to collaborate with relevant local, Chinese Mainland and international I&T organisations, such as the Chinese Academy of Sciences (CAS), the HKEdCity, technology parks (e.g. Cyberport and Hong Kong Science Park), tertiary institutions, teacher education universities and professional bodies, to organise in-service and pre-service training courses. Such training can be counted towards principals’ and teachers’ CPD hours. The EDB will provide training in each of the three school years from 2026/27 to 2028/29, with no fewer than 50 000 training places on average per school year.

<sup>15</sup> The Digital Education Centre of Excellence (CoE) of the EDB comprises in-service primary and secondary school teachers with successful experience in digital education. They play a leading role in promoting the effective use of innovative technologies among fellow schools, thereby driving the continuous development of digital education.

### Key Focus (III)

## Optimising infrastructure to build smart campuses

Guided by the principles of “strengthening support, injecting resources, and driving continuous improvement”, we will promote the sustainable development of digital education in schools and progressively steer them towards becoming smart campuses.

To implement Key Focus (III), we put forward three strategies and their corresponding key action points, as elaborated below:

**Strategy (6) Promote the development of smart campuses and actively explore how AI can assist schools in handling administrative work, thereby reducing workload, enhancing capacity, and improving school governance and efficiency**

### Key Action Points

- 6(i) Schools are encouraged to actively explore how AI can assist in handling administrative work to enhance school governance and efficiency. The EDB will gather schools’ views on computer systems connected to the EDB through various channels (including school visits) and improve the systems accordingly. Schools are also encouraged to consolidate and distil their practical experiences in using AI tools to empower school administration, with a view to promoting good practices and fostering a smart campus culture. Currently, some schools have already begun experimenting with generative AI to streamline workflows for administrative work such as drafting school documents and automated speech to text conversion. Some school sponsoring bodies are sharing digital education resources (including dedicated grants such as the Quality Education Fund (QEF)) with their affiliated schools and upgrading system functions so that schools can better apply digital education tools in day-to-day administration.

- 6(ii) The EDB will continue to liaise with relevant government departments to compile AI safety guidelines applicable to the school sector, support schools in refining their school-based use of AI, raise their awareness of cybersecurity and data security, and help them comply with relevant data privacy regulations and codes of practice.
- 6(iii) School leaders will set up a school-based digital education task force to provide top-level leadership and coordination, steering the school in promoting AI education.

**Strategy (7) Leverage the enhanced School Development and Accountability framework to drive school improvement and enable schools to refine their implementation of digital education**

#### Key Action Points

- 7(i) Through the enhanced SDA framework<sup>16</sup>, primary and secondary schools are encouraged to continuously refine their digital education practices. In the 2026/27 school year, all publicly funded schools will make reference to the Blueprint and curriculum documents, and make effective use of the self-evaluation cycle<sup>17</sup> to incorporate digital education into their School Development Plans and/or Annual School Plans, formulate school based implementation strategies, review the effectiveness of their work in a timely manner, and continuously optimise the implementation of digital education.
- 7(ii) Through different channels, such as curriculum development visits, school inspections (including External School Reviews and Focus Inspections), focus groups, questionnaire surveys, and professional exchange activities, the EDB will review and support the implementation of digital education in schools. These channels enable the EDB to gain insights into changes in curriculum modes and provide feedback and suggestions for improvement, which facilitates the integration of AI into the full process of pre-lesson, while-lesson and post-lesson. In the 2026/27 school year, the EDB will conduct school visits to understand the state of implementation of digital education in schools and collect good examples, followed by inspections of digital education in the 2027/28 school year.

<sup>16</sup> To strengthen school-based management, we announced the implementation of the enhanced School Development and Accountability framework in the 2022/23 school year to bolster the accountability of staff in publicly-funded schools in providing quality school education. For details, please visit: <https://www.edb.gov.hk/en/sch-admin/sch-quality-assurance/about-sch-quality-assurance/index.html>.

<sup>17</sup> The self-evaluation cycle refers to the Planning-Implementation-Evaluation cycle.

### Strategy (8) Strengthen support services, provide resources, and build a platform for digital education learning resources

#### Key Action Points

- 8(i) The EDB will continue to provide resource support through funding from the QEF, including:
- The \$2 billion earmarked by the EDB under the QEF to support the projects recommended by the SCSDDE, comprising:
    - about \$500 million allocated to the AI for Empowering Learning and Teaching Funding Programme<sup>18</sup> to provide each publicly funded primary and secondary school in Hong Kong with a grant of \$500,000. Schools may use the grant during the 2025/26 to 2027/28 school years to procure/subscribe to/lease AI-assisted teaching tools and resources, and to subsidise students' participation in activities related to AI literacy, thereby supporting schools in launching school-based AI-empowered education projects; and
    - the remaining balance, reserved for advancing digital education in the coming years.
  - The QEF has included digital education under its Priority Themes. Schools requiring additional resources to implement innovative L&T projects related to digital education may submit applications to the QEF in accordance with their school contexts and development needs.
  - The EDB has extended the e-Learning Funding Programme<sup>19</sup>, which provides funding for schools to purchase mobile computer devices for loan to students with financial needs, to the 2026/27 school year. During this period, the EDB will explore different options for supporting students with financial needs, so as to promote equity in education.

<sup>18</sup> The AI for Empowering Learning and Teaching Funding Programme is funded by the QEF. For details, please refer to <https://applications.edb.gov.hk/circular/upload/EDBCM/EDBCM25221E.pdf>.

<sup>19</sup> Starting from the 2021/22 school year, the QEF launched the e-Learning Funding Programme, allowing schools to apply for funding to purchase mobile computer devices for loan to students with financial needs, and to provide portable WiFi routers and mobile data cards for students who do not have access to appropriate Internet services due to the constraints in their living environment. For details, please visit: [https://www.edb.gov.hk/en/edu-system/primary-secondary/applicable-to-primary-secondary/it-in-edu/ITE-QEF/qef\\_index.html](https://www.edb.gov.hk/en/edu-system/primary-secondary/applicable-to-primary-secondary/it-in-edu/ITE-QEF/qef_index.html)

- Project deliverables of the QEF funded e-Learning Ancillary Facilities Programme<sup>20</sup> are rolled out in phases, including learning platforms and resources that leverage innovative technologies such as AI. Schools may use QEF resources to subscribe to the project deliverables through a dedicated page on the HKEdCity website, and begin using them from the 2025/26 school year. All project deliverables of the e-Learning Ancillary Facilities Programme will be released by the 2026/27 school year (see Annex 3 for project details).

8(ii) The EDB will continue to provide schools with recurrent grants that can be flexibly deployed to support digital education. For instance, schools may:

- use the Composite Information Technology Grant and the Information Technology Staffing Support Grant to upgrade their schools' IT facilities and employ technical support staff / procure technical support services; and
- use the Life-wide Learning and Sister School Grant to arrange AI-related local and Mainland exchange learning activities for students.

8(iii) The EDB has been providing ongoing school-based support services for schools, and will further step up efforts to advance digital education. In the 2026/27 school year, through the approach of “building communities, fostering exchanges, compiling exemplars, and showcasing achievements”, the EDB will support 300 primary and secondary schools in implementing AI-assisted teaching, develop school-based curriculum resources, and consolidate good L&T strategies for applying AI across various subjects and cross-disciplinary areas, and extending them to other schools.

8(iv) Starting from 2026, the HKEdCity progressively strengthens its comprehensive digital education learning resources platform, including:

- establishing a large language model dedicated to teaching in Hong Kong primary and secondary schools and providing an “AI Assistant” for different subjects. The EDB has been piloting the “AI Assistant” in Science in 2026 to support teachers in designing lesson plans, preparing lessons, and designing assessment items or assignments. Building on this pilot experience, the HKEdCity will progressively expand the “AI Assistant” to more subjects for teachers' use starting from the 2026/27 school year;

<sup>20</sup> The project deliverables of the e-Learning Ancillary Facilities Programme are supported by a \$500 million funding from the QEF. Furthermore, the QEF sponsors publicly funded schools to subscribe to and use these deliverables for a period of three years.

- leveraging AI technology and a single sign-on solution to facilitate teachers in using the platform to generate, access, and share learning and teaching resources of reference value, as well as to participate in online training programmes;
- continuously optimising the AI technology of the Student Assessment Repository (STAR) and Educational Multimedia (EMM) platforms by strengthening data analytics and dynamic assessment functions so as to deliver appropriate assignments or learning content in response to students' learning progress and needs, thereby catering for learner diversity and achieving data-driven teaching; and
- launching the “EdMarket - Digital Education Tools Super-Mall” and continuing to actively assume the role of “super value adder” by introducing high quality and innovative e-learning tools aligned with the local curriculum, promoting practical examples from the school sector, and facilitating professional exchange.

8(v) The EDB actively engages Mainland education authorities and units to launch a pilot scheme on accessing and using the teaching resources available on the National Smart Education Platform for Primary and Secondary Schools.

## Key Focus (IV)

### Promoting cross-sector collaboration to co-create a digital education ecosystem

Cultivating students' digital literacy calls for the concerted efforts of home-school partnership and the support of the wider community. We will promote home-school co-operation to jointly foster in students the proper values and good attitudes in using AI tools. At the same time, the EDB will actively make good use of the resources of local, Chinese Mainland and international organisations and experts to promote cross-sector collaboration, thereby collectively building a quality digital education ecosystem.

To implement Key Focus (IV), we put forward two strategies and their corresponding key action points, as elaborated below:

#### Strategy (9) Promote home-school co-operation to jointly cultivate proper values and good attitudes in students

##### Key Action Points

- 9(i) The EDB will continue to provide parents with updated educational information and organise diversified activities to enable them to understand the latest developments in digital education and the importance of using AI tools appropriately, in order to support them in fostering the proper values and good attitudes in their children.
- 9(ii) The EDB will further foster good communication and mutual trust between schools and parents, ensuring that both parties adopt consistent strategies when guiding students' use of AI tools, so as to help students extend the skills acquired at school to the home and other everyday contexts.
- 9(iii) The EDB will encourage schools to actively organise parent-child activities and parent education activities with AI-related learning elements, or incorporate such elements into existing ones to equip parents to guide their children in using AI responsibly and in addressing the challenges it brings, and ultimately to help their children develop proper values and good attitudes.

### Strategy (10) Bringing together various stakeholders, including professional bodies, to jointly build a digital education ecosystem for primary and secondary schools

#### Key Action Points

10(i) The EDB will explore with the Hong Kong Examinations and Assessment Authority (HKEAA) the feasibility of implementing digital assessment. For example:

- Over the past few years, the HKEAA has implemented pilot schemes for the electronic Territory-wide System Assessment (e-TSA) in Chinese Language, English Language and Mathematics, and trialled the use of AI in marking scripts. Building on the pilot experience, the HKEAA has, starting from 2026, allowed schools to opt for participation in the e-TSA at the Primary 6 level, and will roll out a five-year transitional arrangement to progressively extend the e-TSA to other levels. It is anticipated that, by 2031, the e-TSA will be fully implemented across all relevant levels (i.e. Primary 3, Primary 6 and Secondary 3).
- To explore the feasibility of digitalising the Hong Kong Diploma of Secondary Education (HKDSE) Examination, the HKEAA is considering conducting a pilot in a small number of subjects first, and consulting stakeholders to gather views, in preparation for the progressive extension to other subjects in the future.

10(ii) The EDB will further strengthen collaboration between primary and secondary schools, local tertiary institutions, professional bodies, and I&T organisations, including through jointly-organised projects and activities. Examples include:

- Supporting tertiary institutions, professional bodies, etc. in conducting research and educational projects that align with primary and secondary digital education;
- Co-organising the “I&T Digital Learning Partnership Scheme” with Cyberport to develop innovative teaching resources for Mathematics, Science, Technology/STEAM Education-related subjects;
- Continuing to implement the “JC GoAI” project with the Hong Kong Jockey Club Charities Trust and relevant tertiary institutions, enabling teachers to collaborate across different subjects, pilot the use of AI in teaching, and develop relevant L&T resources;
- Continuing to organise the “Hong Kong Olympiad in Informatics” with the Hong Kong Association for Computer Education, enabling students to showcase their talents in I&T and enhance their coding skills, problem solving skills and innovative thinking; and

- Continuing to organise educational study tours/exchange activities with the Association of I.T. Leaders in Education and other organisations to broaden the horizons of principals and teachers and foster pedagogical innovation.

10(iii) The HKAGE will continue to strengthen the nurturing of students with I&T potential and provide them with more high-quality off-school advanced learning opportunities. Such opportunities include arranging for them to participate in experiential learning in the Mainland, AI-related gifted programmes organised by tertiary institutions, professional bodies and/or technology enterprises, as well as large scale regional/national/international I&T competitions or AI-related student activities.

10(iv) The EDB actively engages in international and Chinese Mainland exchanges on digital education. Examples include:

- Leveraging the Digital Education Week<sup>21</sup> to effectively connect experts, scholars and relevant sectors around the world to exchange successful experiences, with a view to establishing an international platform for the sustained advancement of digital education, and showcasing the learning outcomes of Hong Kong students in digital education;
- Continuing to engage in international exchanges and collaboration, as well as to promote different professional exchange activities, including actively taking part in major international events, such as the “World Digital Education Conference”, to share local experiences and draw on global wisdom, so as to drive the internationalisation of digital education in Hong Kong;
- Maintaining close exchanges with the Mainland (particularly Greater Bay Area cities) and participating in various types of digital education-related alliances in line with Hong Kong’s needs.

10(v) The EDB will continue to arrange exchanges between students and local, Chinese Mainland and international experts in digital education/AI education, enabling the younger generation to gain an in depth understanding of the latest developments and achievements in the field of I&T. For example, in collaboration with the Hong Kong STEM Education Alliance, the EDB will continue to arrange for academicians of the CAS as well as other experts and scholars, to visit Hong Kong and serve as guest speakers for the “Science and Technology Innovation Lectures”, sharing our country’s achievements in science and I&T with teachers and students.

<sup>21</sup> The key activities of the Digital Education Week in 2026 included two flagship events: the Learning & Teaching Expo 2026 and the International Summit on the Use of AI in Learning and Teaching Languages and Other Subjects.



# Overview of Expected Outcomes and Key Action Points

# IV

## Overview of Expected Outcomes and Key Action Points

### 4.1 Expected outcomes

The expected outcomes of the various strategies under the Blueprint include:

- Enhancing students' learning motivation and self-directed learning capabilities, strengthening digital literacy and innovative thinking, and harnessing AI to empower learning;
- Strengthening teachers' confidence in innovative teaching, driving the digital transformation of education, harnessing AI to empower teaching, enhancing classroom interaction, better catering for learner diversity, and developing students' critical thinking, communication, collaboration and creativity;
- Integrating AI education into all schools, jointly building a sustainable digital education ecosystem, and enhancing Hong Kong's international competitiveness in education; and
- Establishing AI education as an integral part of basic education, supporting Hong Kong's I&T development by nurturing future innovative talents, and responding to the development needs of our country and society.

## 4.2 Overview of key action points

To achieve the expected outcomes set out above, the implementation details for each phase are presented in the action overview table below:

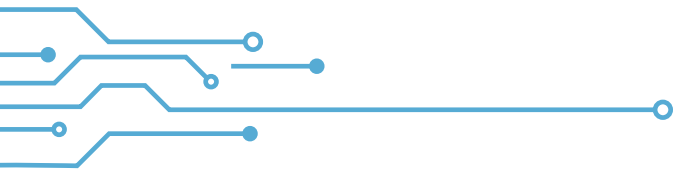
Four Key Focuses, Ten Strategies		
Strategy	Key Action Point	Implementation Timeline
<b>Key Focus (I) Nurturing talents with both digital literacy and humanistic qualities</b>		
<b>(1) Formulate the <i>AI Literacy Learning Framework for Primary and Secondary Schools</i> to systematically cultivate knowledge, skills and proper values related to digital technology in students</b>	<ul style="list-style-type: none"> <li>Publish the <i>AI Literacy Learning Framework for Primary and Secondary Schools</i></li> </ul>	Within the 2025/26 school year
	<ul style="list-style-type: none"> <li>Take appropriate follow-up actions in line with the updated guidelines issued by the DH on addressing the impact of social media on the mental health of children and adolescents, including arranging briefing sessions for the school sector</li> </ul>	Anticipated within the 2026/27 school year
	<ul style="list-style-type: none"> <li>Adopt the principle of “Inclusive and Equitable”, under which every school will arrange and/or organise diversified learning activities for students</li> </ul>	Ongoing implementation
	<ul style="list-style-type: none"> <li>Establish and make effective use of school-based student talent pool in all primary and secondary schools in Hong Kong to identify students’ potential, and systematically discover and nurture those with potential for, or a keen interest in, I&amp;T</li> <li>Support schools in applying AI technologies to address students’ diverse learning needs and cater for students with special educational needs, and to provide students with timely support to promote educational equity and inclusion</li> </ul>	Ongoing implementation
<b>(2) Strengthen Mathematics, Science and Technology education to enhance students’ I&amp;T capabilities</b>	<ul style="list-style-type: none"> <li>Optimise the Mathematics, Science and Technology curricula at the primary and secondary levels                             <ul style="list-style-type: none"> <li>Launch the <i>Information and Innovation Technology Curriculum Framework for Primary Schools</i></li> <li>Provide guidelines to strengthen mathematical modelling learning elements in the primary and secondary Mathematics curricula</li> <li>Update the curricula of senior secondary Science subjects to strengthen scientific inquiry and I&amp;T learning elements</li> </ul> </li> </ul>	Within the 2026/27 school year
	<ul style="list-style-type: none"> <li>Announce the recommendations on the curriculum structure for implementing senior secondary Science subjects and the Extended Part of Mathematics</li> </ul>	By the end of 2026

Four Key Focuses, Ten Strategies		
Strategy	Key Action Point	Implementation Timeline
<b>(3) Integrate learning elements related to digital education organically into the primary and secondary curricula, promote the “AI + Curriculum”, and issue a guide to implement a human-AI collaborative learning mode</b>	• Publish the <i>Guide to Using AI in Teaching in Primary and Secondary Schools</i>	Within the 2025/26 school year
	• Update various curriculum documents and related examples to incorporate AI learning elements, with a view to facilitating human-AI collaboration	Over the two school years of 2026/27 and 2027/28
	• Integrate AI into learning across all Key Learning Areas, subjects, and cross-disciplinary areas in schools	Ongoing implementation
	• Further cultivate proper values, such as responsibility, integrity, law-abidingness and empathy, in students through values education and related learning experiences, and remind students to stay vigilant regarding issues, such as cyberbullying and the discernment of the authenticity of information	Ongoing implementation
	• Produce a collection of school examples through the “AI for Science Education” Funding Programme	Within the 2026/27 school year
<b>Key Focus (II) Strengthening teacher training to drive digital transformation of education</b>		
<b>(4) Formulate teacher professional training requirements for digital education</b>	• Require teachers to complete a minimum of 30 hours of training in digital education within each three-year CPD cycle of 150 hours	Starting from the 2026/27 school year
	• Schools support teachers in meeting the digital education training requirements within each three-year CPD cycle, including by arranging school-based or cross-school teacher training	Starting from the 2026/27 school year
	• In respect of pre-service training, incorporate digital education into the compulsory component of Bachelor of Education programmes or Postgraduate Diploma in Education programmes at various teacher education universities	Ongoing implementation
	• The EDB will strengthen school leaders’ and middle management’s competence in digital technology, such as AI, by enhancing the relevant training content	Ongoing implementation
	• Continue to promote the Award for Education Innovation under the Chief Executive’s Award for Teaching Excellence to recognise outstanding teachers; promote excellent teaching practices and encourage the school sector to explore teaching practices with innovative thinking, such as integrating AI/digital technology, to enhance the quality of L&T	Ongoing implementation
<b>(5) Provide tiered, diversified professional development activities in digital education to strengthen schools’ professional capacity to lead change and pedagogical innovation</b>	• Organise tiered teacher professional development activities for in-service teachers in different positions, including “AI Literacy”, “AI + Subjects” and “AI Leadership”	Ongoing implementation
	• The CoE will enhance on-site professional support for schools	Ongoing implementation
	• Continue to organise in-service and pre-service teacher professional training programmes in collaboration with relevant local, Chinese Mainland and international I&T organisations • Provide training in each of the three school years from 2026/27 to 2028/29, with no fewer than 50 000 training places on average per school year	Ongoing implementation  Within the three school years from 2026/27 to 2028/29

Four Key Focuses, Ten Strategies		
Strategy	Key Action Point	Implementation Timeline
<b>Key Focus (III) Optimising infrastructure to build smart campuses</b>		
<b>(6) Promote the development of smart campuses and actively explore how AI can assist schools in handling administrative work, to reduce workload, enhance capacity, and improve school governance and efficiency</b>	<ul style="list-style-type: none"> <li>Encourage schools to actively explore how AI can assist in handling administrative work to improve school governance and efficiency. Through various channels (including school visits), the EDB will gather schools' views on computer systems linked to the EDB and refine the systems accordingly. At the same time, schools will consolidate and distil their practical experience in using AI tools to empower school administration, with a view to promoting good examples and fostering a smart campus atmosphere</li> </ul>	Ongoing implementation
	<ul style="list-style-type: none"> <li>Continue to liaise with relevant government departments to compile AI safety guidelines applicable to the school sector, support schools in refining their school-based use of AI</li> </ul>	Ongoing implementation
	<ul style="list-style-type: none"> <li>School leadership will set up a school-based digital education task force to provide top-level leadership and coordination, and to steer the school in promoting AI education</li> </ul>	Ongoing implementation
<b>(7) Leverage the enhanced School Development and Accountability framework to drive school improvement and enable schools to refine their implementation of digital education</b>	<ul style="list-style-type: none"> <li>Require all publicly-funded schools to make reference to the Blueprint and curriculum documents, and make effective use of the self-evaluation cycle to incorporate digital education into their School Development Plans and/or Annual School Plans, and formulate school-based implementation strategies</li> </ul>	Within the 2026/27 school year
	<ul style="list-style-type: none"> <li>Conduct school visits to understand the state of implementation of digital education and collect good examples in the 2026/27 school year, followed by inspections of digital education in the 2027/28 school year</li> </ul>	From 2026/27
<b>(8) Strengthen support services, provide resources, and build a platform for digital education learning resources</b>	<ul style="list-style-type: none"> <li>Continue to provide resource support through funding from the QEF                             <ul style="list-style-type: none"> <li>The EDB has earmarked \$2 billion under the QEF to support digital education. In the 2025/26 school year, about \$500 million was allocated to the <i>AI for Empowering Learning and Teaching Funding Programme</i>, which provides each publicly-funded primary and secondary school in Hong Kong with a grant of \$500,000. The remaining balance reserved for advancing digital education in the coming years</li> <li>The QEF has included digital education under its Priority Themes and is accepting applications from schools</li> <li>In the 2026/27 school year, explore different options for supporting students with financial needs</li> <li>In the 2026/27 school year, release all project deliverables of the e-Learning Ancillary Facilities Programme</li> </ul> </li> </ul>	Ongoing implementation
		Ongoing implementation Within the 2026/27 school year Within the 2026/27 school year

Four Key Focuses, Ten Strategies		
Strategy	Key Action Point	Implementation Timeline
<b>(8) Strengthen support services, provide resource support, and build a comprehensive platform for digital education learning resources</b>	<ul style="list-style-type: none"> <li>Continue to provide schools with recurrent grants, such as the Composite Information Technology Grant, the Information Technology Staffing Support Grant, and the Life-wide Learning and Sister School Grant</li> </ul>	Ongoing implementation
	<ul style="list-style-type: none"> <li>Provide school-based support services for about 300 primary and secondary schools in advancing digital education</li> </ul>	Within the 2026/27 school year
	<ul style="list-style-type: none"> <li>HKEdCity                             <ul style="list-style-type: none"> <li>Establish a dedicated large language model for Hong Kong primary and secondary school teaching and provide an “AI Assistant” for different subjects. Building on the pilot experience, the HKEdCity will gradually extend the “AI Assistant” to more subjects for teachers’ use starting from the 2026/27 school year</li> <li>Leverage AI technology and a single sign-on solution to facilitate teachers in using the platform to generate, access, and share learning and teaching resources of reference value, as well as to participate in online training courses</li> <li>Continuously optimise the AI technology of the STAR and EMM platforms</li> <li>Launch the “EdMarket – Digital Education Tools Super-Mall” and continue to actively serve as a “super value adder”</li> <li>Actively maintain close liaison with Mainland education authorities and units to launch a pilot scheme on accessing and using the teaching resources from the National Smart Education Platform for Primary and Secondary Schools</li> </ul> </li> </ul>	Starting from the 2026/27 school year  Ongoing implementation  Ongoing implementation  Ongoing implementation  Ongoing implementation
<b>Key Focus (IV) Promoting cross-sector collaboration to co-create a digital education ecosystem</b>		
<b>(9) Promote home-school co-operation to jointly cultivate proper values and good attitudes in students</b>	<ul style="list-style-type: none"> <li>Provide parents with updated educational information and organise diversified activities to support them in fostering the proper values and good attitudes in their children</li> </ul>	Ongoing implementation
	<ul style="list-style-type: none"> <li>Promote the establishment of good communication and mutual trust between schools and parents, so as to help students extend the skills acquired at school to the home and other everyday contexts</li> </ul>	Ongoing implementation
	<ul style="list-style-type: none"> <li>schools to organise parent-child and parent education activities related to digital education, so that parents can learn how to guide their children to use AI with a good attitude and to develop proper values and attitudes</li> </ul>	Ongoing implementation

Four Key Focuses, Ten Strategies		
Strategy	Key Action Point	Implementation Timeline
<b>(10) Bringing together various stakeholders, including professional bodies, to jointly build a digital education ecosystem for primary and secondary schools</b>	<ul style="list-style-type: none"> <li>• HKEAA                             <ul style="list-style-type: none"> <li>◦ Roll out a five-year transitional arrangement to progressively extend the e-TSA to other levels</li> <li>◦ Consider trialling digital assessment in a few subjects first to explore the feasibility of digitalising the HKDSE Examination</li> </ul> </li> </ul>	<p>It is anticipated that by 2031, the e-TSA will be fully implemented across all relevant levels (i.e. Primary 3, Primary 6 and Secondary 3)</p> <p>Ongoing implementation</p>
	<ul style="list-style-type: none"> <li>• The EDB will further strengthen collaboration between primary and secondary schools, local tertiary institutions, professional bodies, and I&amp;T organisations                             <ul style="list-style-type: none"> <li>◦ Support tertiary institutions, professional bodies, etc. in conducting research and educational projects that align with primary and secondary digital education</li> <li>◦ Co-organise the “I&amp;T Digital Learning Partnership Scheme” with Cyberport to develop innovative teaching resources</li> <li>◦ Continue to implement the “JC GoAI” project with the Hong Kong Jockey Club Charities Trust and relevant tertiary institutions</li> <li>◦ Continue to organise the “Hong Kong Olympiad in Informatics” with the Hong Kong Association for Computer Education</li> <li>◦ Continue to organise educational study tours/exchange activities with the Association of I.T. Leaders in Education and other organisations</li> </ul> </li> </ul>	<p>Ongoing implementation</p> <p>Within the 2025/26 school year Ongoing implementation</p> <p>Ongoing implementation</p> <p>Ongoing implementation</p>
	<ul style="list-style-type: none"> <li>• The HKAGE will continue to strengthen the nurturing of students with I&amp;T potential and provide more high-quality off-school advanced learning opportunities</li> </ul>	<p>Ongoing implementation</p>
	<ul style="list-style-type: none"> <li>• Actively engage in international and Chinese Mainland exchanges on digital education                             <ul style="list-style-type: none"> <li>◦ Continue to organise the “Digital Education Week” in 2026</li> <li>◦ Continue to engage in international exchanges and collaboration, as well as to promote different professional exchange activities</li> <li>◦ Maintain close exchanges with the Mainland (particularly Greater Bay Area cities)</li> </ul> </li> </ul>	<p>Within the 2025/26 school year Ongoing implementation</p> <p>Ongoing implementation</p>
	<ul style="list-style-type: none"> <li>• Continue to arrange for students to engage in exchanges with local, Chinese Mainland and international experts in digital education/AI education</li> </ul>	<p>Ongoing implementation</p>





**Conclusion**

## V

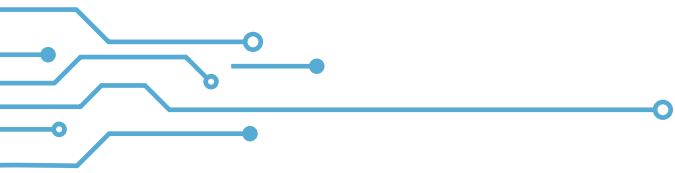
## Conclusion

The 2026 *Hangzhou Initiative on AI and Education*<sup>22</sup> explicitly states that: “The surging wave of artificial intelligence is profoundly reshaping the production and living styles of humankind. As global education stands at a critical juncture of historic transformation, we must seize the boundless possibilities in the intelligent era in order to ride the tide to advance”. In response to the challenges and opportunities of the times, the Blueprint sets out four key focuses for development and ten specific implementation strategies and key action points, to be carried out in the short-to-medium term, so as to progressively advance the digital transformation of education. The Blueprint has been developed through extensive consultation and collection of views from various stakeholders, and has received broad recognition and support.

We anticipate that significant progress will be made in AI empowered L&T within the school years following the release of the Blueprint. AI will be integrated into all educational elements in every school, including curriculum, student learning, classroom teaching, learning resources and learning assessment, etc. Under the leadership of principals and teachers who harness AI, and supported by AI-empowered school governance systems as well as L&T culture, schools will collectively build smart campuses and an AI ecosystem, nurturing future innovative talents with both virtue and ability.

<sup>22</sup> For the full text, please visit: [https://paper.jyb.cn/zgjyb/html/2026-05/13/content\\_144743\\_19526442.htm](https://paper.jyb.cn/zgjyb/html/2026-05/13/content_144743_19526442.htm) (Chinese version only)

Looking ahead, as technology advances at an ever-increasing pace, we will maintain a dynamic mindset, and review and optimise the strategies of the Blueprint in a timely manner in response to national development and societal needs. The Blueprint is launched at an opportune moment, coinciding with the inaugural year of the national 15th Five-Year Plan. We extend our heartfelt gratitude to the SCSDDE, the school sector, tertiary institutions and partners from various sectors for their whole-hearted support and feedback, and for their contributions to driving the digital transformation of education. We hope that all sectors will continue to offer their views, enabling Hong Kong to fully leverage its unique advantage of “enjoying strong support of the Motherland and being closely connected to the world”, continuously deepen digital education, and empower students to harness technology to realise their aspirations, thereby contributing to the great rejuvenation of the Chinese nation.





**Annexes**

# Implementation of Digital Education in Hong Kong: Current Situation, Strengths, Opportunities and Challenges

## 1. Brief Account of the Current Situation

Digital technology brings opportunities for educational innovation, while also highlighting challenges in areas such as resources, training, educational equity, as well as information and cybersecurity. The current situation of digital education in primary and secondary schools, along with its strengths, opportunities, and challenges, outlined below, serves as an important reference for formulating the implementation strategies of the Blueprint.

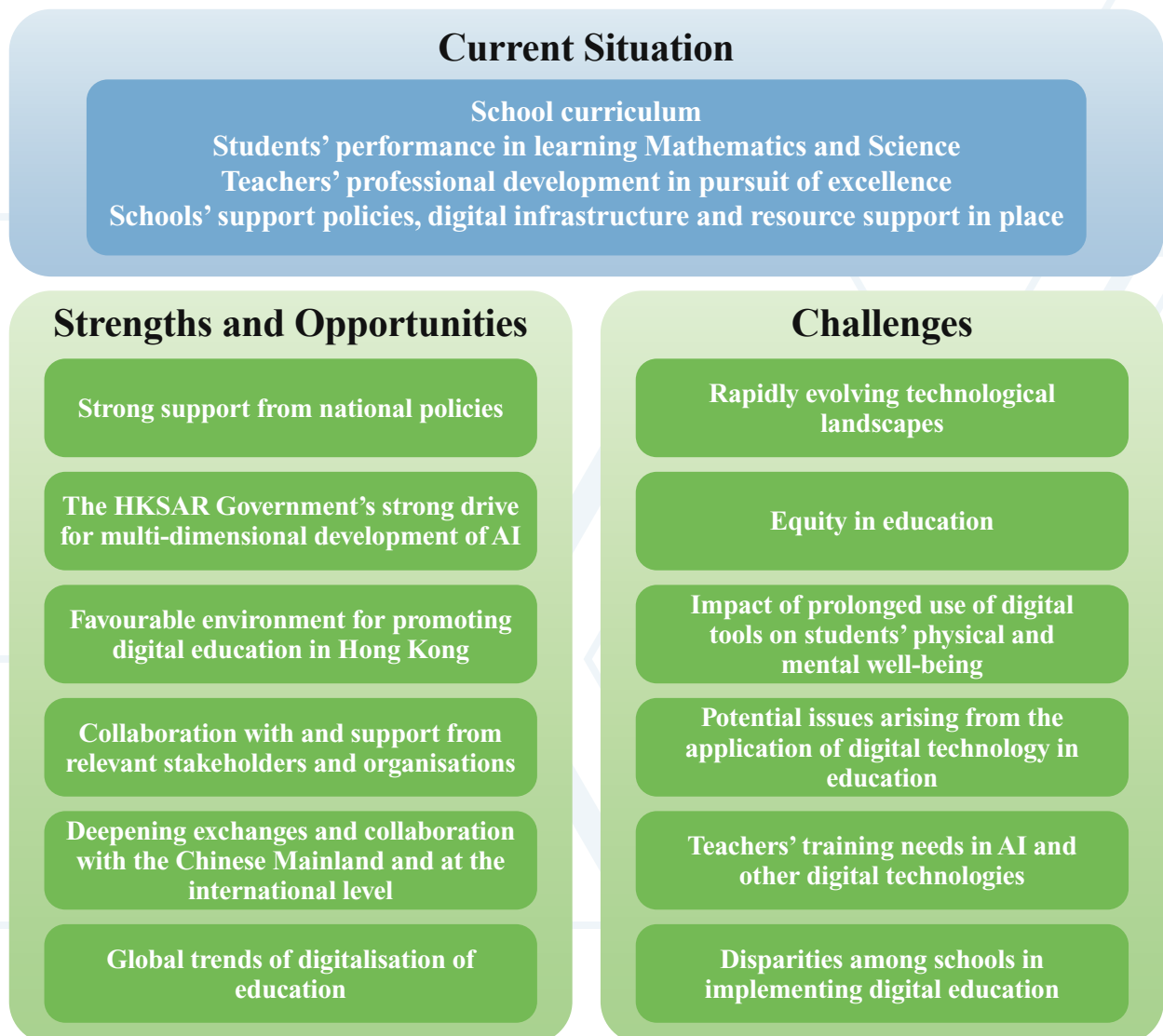


Figure 3 Current situation, strengths, opportunities and challenges of digital education implementation in Hong Kong

## 1.1 School curriculum

The digital infrastructure and resource support for Hong Kong's primary and secondary schools are largely in place, and the EDB has been keeping pace with the times by continuously reviewing and optimising the primary and secondary school curricula.

### 1.1.1 Continuous optimisation of school curriculum

- The EDB has been promoting I&T education and STEAM education, including strengthening computational thinking, coding education, mathematical modelling, and scientific inquiry, etc. as well as introducing the development and application of emerging and innovation technologies (such as innovative engineering) into the curriculum, so as to nurture students' interest, knowledge and ability in learning I&T from an early age. Recent examples of curriculum optimisation implemented include:
  - Launching the “Module on Artificial Intelligence for Junior Secondary Level” and the “Enriched Module on Coding Education for Upper Primary Level” in 2023;
  - Introducing the Primary Science curriculum in 2024 and the updated Junior Secondary Science curriculum in 2025;
  - Implementing the pilot scheme on mathematical modelling in primary schools from the 2023/24 to 2024/25 school years.
- Nurturing proper values in students is key to enabling their effective use of technology. The EDB actively advocates the effective, ethical and responsible use of innovation technology. In the updated “Information Literacy for Hong Kong Students” Learning Framework in 2024, a new literacy area of “Recognise the ethical issues arising from the application of emerging and advanced information technologies” has been added, covering issues related to laws and regulations, academic integrity and excessive dependence on technology arising from innovation technologies such as AI technology, so that students can develop proper values and attitudes towards the application of innovation technology, and learn to make good use of scientific knowledge and technology.
- Primary and secondary schools generally support the integration of information literacy into the learning and teaching of various subjects to cultivate students' capabilities in critical thinking and navigating complex digital technologies, as well as their sense of responsibility. They also integrate the learning of innovation technology into the curriculum, enabling students to understand that the development of I&T is closely related to their learning and daily lives.

### 1.1.2 Enriching learning experiences

- The EDB encourages schools to cultivate students’ digital literacy from an early age by providing a variety of learning experiences within and beyond the classroom. Just as STEAM education requires students to integrate and apply knowledge and skills of relevant disciplines in authentic real-life contexts, schools also create practical scenarios for the application of emerging information technology to develop students’ innovative thinking and problem-solving capabilities.
- In recent years, the EDB has been actively organising various types of life-wide learning activities for primary and secondary schools, enriching students’ learning experiences in digital education through educational programmes, competitions, exchange activities and other formats.
  - Examples of learning activities related to I&T, Mathematics and Science include:
    - The “Innovative Engineering Education Programme for Primary and Secondary Schools” co-organised by the EDB and the engineering sector provided opportunities for students to learn about engineering and I&T, and the application of engineering in daily life through innovative engineering education activities;
    - The “Hong Kong-Shanghai Mathematical Modelling Competition for Secondary School Students” brought students’ collaboration capabilities and mathematical capabilities in solving real-world problems into full play, while further promoting learning through exchanges and competitions with students in the Mainland.
  - Integrating learning experiences in digital education and I&T into exchange activities, for example:
    - Mainland study tours for Citizenship and Social Development (CS)<sup>23</sup> subject have been enhanced to enable senior secondary students to understand the latest developments in our country’s innovation technology and/or AI;
    - Mainland Exchange Programmes for primary and secondary students cover different themes relating to AI/digital education, etc. to broaden students’ horizons, help them understand the our country’s development and achievements in innovation technology, and understand the opportunities brought to Hong Kong by national development.

<sup>23</sup> CS is a compulsory subject for all senior secondary students, and the subject requires students to participate in a Mainland study tour once. In the 2025/26 school year, among the 28 itineraries of CS Mainland study tours, more than 10 itineraries are related to AI or digital education. The itineraries include: visiting the Shenzhen-Hong Kong Exchange Centre in Shenzhen, innovation technology or digital enterprises in Hangzhou, and the China International Big Data Industry Expo in Guiyang; participating in relevant experiential learning activities at Beijing Normal University, Zhuhai; and attending lectures on AI at Zhejiang University, etc.

### 1.1.3 Enhancing the nurturing of gifted students through digital education and I&T

- The EDB promotes the establishment of school-based student talent pool<sup>24</sup> in primary and secondary schools to identify and nurture students with potential in areas including I&T/STEAM. In collaboration with the HKAGE, arrangements are made for these students to participate in systematic training and competitions of reasonable scale. For instance, student members of the HKAGE engaged in learning and scientific research at the CAS under the guidance of Chinese Mainland experts, and participated in international symposiums on quantum computing and information technology to share their learning experiences in quantum computing on an international platform.
- Over the years, Hong Kong students have performed outstandingly in international and national mathematics, science, and I&T-related competitions, winning numerous awards and demonstrating their enormous potential in the field of I&T. Examples include:

Mathematics, Science and I&T-related Competition (International)	Award
International Junior Science Olympiad	2 Gold, 4 Silver (2024)
International Mathematical Olympiad	2 Gold, 3 Silver, 1 Bronze (2025); 5 Silver, 1 Bronze (2024)
International Physics Olympiad	4 Gold, 1 Silver (2025)
International Biology Olympiad	2 Silver, 1 Bronze, 1 Merit (2025); 2 Gold, 2 Bronze (2024)
International Olympiad in Informatics	2 Silver, 2 Bronze (2025); 1 Gold, 2 Silver, 1 Honourable Mention (2024)
European Physics Olympiad	4 Gold, 1 Silver (2024)
Asian Physics Olympiad	1 Gold, 6 Bronze, 1 Honourable Mention (2026); 3 Silver, 3 Bronze, 2 Honourable Mention (2025); 1 Gold, 3 Silver, 2 Bronze, 2 Honourable Mention (2024)
Regeneron International Science and Engineering Prize	1 Third Award, 1 Fourth Award (2026); 1 Second Award, 1 Fourth Award (2025); 1 First Award and the Top Award (2024)

<sup>24</sup> The school-based student talent pool is a tool used to identify and record students' talents, so as to provide appropriate support in accordance with students' interests, traits and capabilities, and to strategically plan school-based gifted education programmes.

International Mathematical Modelling Challenge (Greater China)	4 Outstanding Awards (2025)
<b>Mathematics, Science and I&amp;T-related Competition (National)</b>	<b>Award</b>
China Mathematical Olympiad	1 Gold, 1 Silver, 4 Bronze (2025); 6 Silver (2024)
Chinese Physics Olympiad	1 Gold, 2 Silver, 3 Bronze (2025); 1 Silver, 5 Bronze (2024)
China Girls' Mathematical Olympiad	2 Gold, 5 Silver, 5 Bronze (2025); 1 Gold, 7 Silver (2024)
Chinese Chemistry Olympiad	2 Bronze (2025)
China Adolescents Science & Technology Innovation Contest	9 Special Awards (2025); 3 First Prizes, 3 Second Prizes, 6 Third Prizes, 2 Special Awards (2024)
Soong Ching Ling Children's Invention Award	6 Gold, 9 Silver, 6 Bronze, 1 Work Award (2025); 4 Gold, 3 Silver, 5 Bronze (2024)
National Youth Space Innovation Competition	2 First Prizes, 11 Second Prizes, 27 Third Prizes (2025); 4 First Prizes, 5 Second Prizes, 13 Third Prizes (2024)
National Olympiad in Informatics	1 Silver, 5 Bronze (2025); 1 Silver, 5 Bronze (2024)

*Table 2 Examples of awards won by Hong Kong Students in international and national mathematics, science, and I&T competitions*

## 1.2 Students' performance in learning Mathematics and Science

- Hong Kong students have consistently performed outstandingly in international studies and assessments, such as the “Programme for International Student Assessment” (PISA)<sup>25</sup> and the “Trends in International Mathematics and Science Study” (TIMSS)<sup>26</sup>, with results continuously exceeding the international average. Students' mathematical and scientific capabilities rank among the leading positions across many economies and regions. This affirms the teaching effectiveness of schools and teachers in Mathematics and Science subjects, as well as students' learning outcomes.

<sup>25</sup> The “Programme for International Student Assessment” (PISA) is organised by the Organisation for Economic Co-operation and Development (OECD) every three years to assess the performance of 15-year-old students in mathematics, science and mother-tongue reading capabilities. Data from PISA 2022 show that the mathematical and scientific capabilities of Hong Kong students ranked fourth and seventh respectively among 81 countries or economies.

<sup>26</sup> The “Trends in International Mathematics and Science Study” (TIMSS) is sponsored by the International Association for the Evaluation of Educational Achievement and is conducted every four years to study the performance of students in Primary 4 and Secondary 2 in mathematics and science. Data from TIMSS 2023 show that among more than 60 countries or regions, Hong Kong Primary 4 and Secondary 2 students ranked fourth and fifth respectively in mathematics, while Hong Kong Primary 4 and Secondary 2 students ranked ninth and eighth respectively in science.

### 1.3 Teachers' professional development in pursuit of excellence

- The EDB has been promoting the continuous professional development of principals and teachers at all levels. Teachers are generally capable of utilising various IT L&T tools to support students' learning at home and promote their self-directed learning. During the pandemic, primary and secondary schools in Hong Kong generally achieved “suspending classes without suspending learning”, and the performance of schools was recognised by various sectors.
- A survey conducted by the EDB from November to December 2025 showed that more than half of primary schools (54.2%) and the majority of secondary schools (70.2%) reported that at least half of their teachers had started using AI tools to assist L&T (see Annex 2 for a summary of the survey). In addition, many teachers are not only dedicated to using AI tools to enhance L&T effectiveness in various subjects and cross-disciplinary areas (including values education), but also proactively reflect on the ethical considerations in the use of AI, thereby cultivating in students the necessary values and attitudes to use digital technology ethically and responsibly.
- The Digital Education Centre of Excellence (CoE), as a pioneering and professional digital education team under the EDB, has been fostering a culture of professional exchange and learning communities among schools to share experiences and insights gained from promoting digital education, thereby facilitating pedagogical innovation.

### 1.4 Schools' support policies, digital infrastructure, and resource support in place

- Primary and secondary schools have long been working in tandem with the EDB to promote the development of information technology in education, and have established a solid foundation in using digital tools to enhance the effectiveness of L&T. Since the COVID-19 pandemic, schools have continuously optimised the use of different e-learning tools and resources, turning the pandemic crisis into an opportunity to move digital education forward.
- The EDB equips schools with teaching software and hardware, online learning resources, etc., while the HKEdCity provides online platforms and high-quality digital education resources to promote schools' application of digital technology in teaching. With the resource support of the EDB, schools have upgraded their network infrastructure to meet the growing demands for online teaching, including video-based instruction, cloud applications, and large file transfers.

- The EDB also provides support for disadvantaged students with financial needs to ensure that they all enjoy equal access to e-learning opportunities. In PISA 2022, Hong Kong performed exceptionally well in educational equity, ranking second among countries or economies with high academic achievements, reflecting that the measures have effectively promoted equity in education.

## 2. Strengths and Opportunities Arising from the Broader Context

Hong Kong's overall scientific research and development ecosystem is well-established and local universities consistently achieve outstanding results in international rankings. This demonstrates considerable potential for I&T research at the academic level, providing robust support for the development of digital education in primary and secondary schools. On the other hand, Hong Kong benefits from the advantages of “one country, two systems”, alongside the vigorous efforts of the HKSAR Government to promote smart city development. These factors together create a favourable environment and powerful impetus for the development of digital education in primary and secondary schools.

### 2.1 Strong support from national policies

- The “15th Five-Year Plan” and important policy documents relating to Digital Education
  - The “15th Five-Year Plan” emphasises that education must centre on cultivating values and nurturing people. It calls for further implementation of strategy for education digitalisation and the promotion of the use of AI in driving the education transformation in order to achieve the goal of invigorating the country through science and education.
  - In recent years, our country has been vigorously promoting the digitalisation of education and promulgated a number of important policy documents on digital education, including:
    - The *Master Plan on Building China into a Leading Country in Education (2024–2035)* proposes strengthening the supporting role of education in science and technology and talent development, and building a learning society.
    - The *White Paper on Smart Education in China* puts forward the development strategy, practice models and future directions of smart education, including strengthening the application of AI in education.

- The “*AI + Education*” *Action Plan* emphasises the principles of “nurturing people as the core, prioritising literacy, being application-oriented, and harnessing AI for good”. It calls for AI to serve as the core driving force behind educational transformation, integrating AI across all elements, processes and scenarios of education, and innovating new models of human-AI collaborative education, such as smart learning partners and smart teachers.
- *Guidelines for the Application of Generative Artificial Intelligence for Teachers (First Edition)* provide teachers with application scenarios, basic norms and practical guidance for the use of AI, helping them make good use of AI to empower education and build a new human-centred smart education ecosystem.
  - o The above documents provide policy foundations and important reference for the development of digital education in Hong Kong.
- The unique strengths under “one country, two systems”
  - o Leveraging the unique strengths under “one country, two systems”, Hong Kong has been “enjoying the strong support of the Motherland and being closely connected to the world”, and is exceptionally well-positioned to develop into an international education hub. As one of the cities in the Greater Bay Area, Hong Kong possesses the advantages of deep integration and synergistic development with the Mainland, especially with Greater Bay Area cities, in the field of digital education. This includes exploring the possibility of sharing the world’s largest national smart education platform, while at the same time introducing cutting-edge knowledge and technology from all over the world to support local teaching innovation and nurturing of digital talents.

## 2.2 The HKSAR Government's strong drive for multi-dimensional development of AI

In recent years, the HKSAR Government has introduced a series of policy measures covering I&T infrastructure, talent attraction, promotion of research and development, support for start-ups, and the commercialisation and transfer of research outcomes. Combined with the efforts of “the Government, industry, academic and research sectors”, these measures actively support the multi-dimensional development of AI and create major opportunities for building a future smart city and advancing digital education. Examples of related measures include:

- In the 2025 Policy Address, the Chief Executive proposed promoting the deep integration and innovative application of AI in areas such as scientific research, the economy, people's livelihood and education;
- In response to the risks associated with the application of AI technology, the HKSAR Government has issued guidance to different sectors, including the education sector, to provide schools with a reference framework when using related tools, and to assist them in establishing a more robust cybersecurity framework.

## 2.3 Favourable environment for promoting digital education in Hong Kong

Hong Kong enjoys the compounding advantages of both national and international strengths, successfully attracting enterprises, talent, and technology from around the world, which helps drive I&T collaboration and development, and is also conducive to the advancement of digital education.

- With strong national support for Hong Kong's development as an international I&T centre, the HKSAR Government is committed to improving the strategic layout of I&T infrastructure. A robust I&T infrastructure, together with highly effective cybersecurity safeguards, provides technical reference and support for the building of smart campuses, as well as strong technical support and a secure environment for digital education in primary and secondary schools.
- Hong Kong possesses substantial scientific research capabilities, with its research standard widely recognised both nationally and internationally.
- Hong Kong's biliterate and trilingual education policy, and its international outlook, not only facilitate the absorption of global educational technology resources, but also promote exchange and collaboration with I&T institutions / organisations in the Mainland and overseas.

## 2.4 Collaboration with and support from relevant stakeholders and organisations

The EDB has been actively collaborating with various stakeholders and organisations to draw on their support in compiling learning resources, organising professional exchange activities, and promoting teacher training. Examples include:

- **Compiling learning resources**  
Collaborating with the Hong Kong Police Force to launch a series on “Cyber Security and Technologies Crimes Related Information” and working with the Journalism Education Foundation to develop L&T resources related to media and information literacy, so as to enhance students’ capabilities in personal data privacy protection and discerning the authenticity of information.
- **Co-organising projects and activities**  
Co-organising the following projects and activities with international organisations, tertiary institutions, professional bodies, and I&T institutions to enable school leaders and teachers to keep abreast of the latest developments in I&T (including AI):
  - Commissioning tertiary institutions to organise the teacher development programmes “Effective Use of AI Technologies to Facilitate Learning and Teaching”;
  - Co-organising the “STEAM Education Leadership Exchange and Training Course” with the Teacher Education Centre under the auspices of UNESCO;
  - Co-organising the “Future Hong Kong” International Science and Technology Innovation Education Forum with related professional bodies;
  - Inviting Chinese Mainland and overseas I&T and AI experts and scholars to share with the school sector on the theme of “Smart Future—AI Innovation and Science Education”.
- **Providing off-school advanced learning opportunities for gifted students**  
Collaborating with the HKAGE, I&T organisations, tertiary institutions, and professional bodies to provide high-quality and challenging off-school advanced learning opportunities to enrich students’ experiences in learning I&T. Examples include:
  - Advanced courses related to Mathematics, Science, and I&T (including innovation technologies, quantum computing and the Internet of Things);

- Activities related to I&T such as lectures, integrated practices, training, experience programmes, and competitions (such as the International Olympiad in Informatics, the China Adolescents Science and Technology Innovation Contest, and the GBA Innovation and Technology Study Tour).
- Continuous support for promoting digital education in primary and secondary schools in collaboration with the HKEdCity

The EDB and the HKEdCity continue to support primary and secondary schools in promoting digital education. Examples include:

- Establishing the “e-Learning Tools Super-shelf” online platform to provide users with diversified learning resources and solutions;
- Providing users with a variety of resources and platforms;
- Engaging various stakeholders to build an AI teaching ecosystem, creating favourable conditions for promoting the digitalisation of education.
- Garnering support from Mathematics, Science, and Technology departments/experts and scholars

The EDB liaises with tertiary institutions to garner support from Mathematics, Science, and Technology departments/experts and scholars, for example:

- A local university set up an academy of mathematical science to promote Hong Kong as a training and education hub for mathematical science talent. By recruiting students who demonstrate outstanding performance in mathematical science, the academy is committed to nurturing them into ground-breaking leaders who will drive inter-disciplinary research and application.
- Promoting the hosting of international/regional mathematics and science research events in Hong Kong, such as “Hong Kong Secondary Student Space Station Popular Science Payload and Science Experiment Design Challenge”, “International Mathematical Modelling Challenge International Summit cum Award Ceremony”, and “International Olympiad in Informatics (IOI) Gold Medalists Study Camp”, to connect students with world-class professionals and knowledge, and to foster engagement in popular science.

- In addition to the above, other examples of collaboration on I&T project include:

Collaborative Project	Key Collaborator
iFuture Education Conference	i-Future Education Association
Learning & Teaching Expo	Hong Kong Education City
Digital Education Week	Hong Kong Education City, Standing Committee on Language Education and Research, Smart City Consortium
Innovation and Technology Carnival	Innovation and Technology Commission
Hydrogen Zero Carbon STEAM Carnival	Environment and Ecology Bureau, Electrical and Mechanical Services Department
Training Programmes and Budding Scheme on Innovation and Technology	Cyberport
HydroRace Challenge	Electrical and Mechanical Services Department
Science Docent Challenge	Hong Kong Space Museum, The Chinese University of Hong Kong
AI Quiz Competition for Secondary School Students (All-round)	The Chinese University of Hong Kong
AI Hackathon	The Chinese University of Hong Kong
“Active Students, Active People” (ASAP) Campaign MVPA60 Mobile Application Design Competition	Hong Kong Metropolitan University Lee Shau Kee School of Business and Administration

*Table 3 Examples of I&T collaborative projects between the EDB and stakeholders*

## 2.5 Deepening exchanges and collaboration with the Chinese Mainland and at the international level

The EDB actively participates in exchange activities with the Chinese Mainland and at the international level, showcasing and promoting the practical experiences of Hong Kong primary and secondary schools in digital education, for example:

- In 2026, the Secretary for Education led a Hong Kong delegation composed of representatives from the “Steering Committee on Strategic Development of Digital Education” and relevant stakeholders to participate in the World Digital Education Conference, where they shared the latest policies and practical experiences in digital education with guests and experts from many countries and regions around the world; in 2025, the Secretary for Education shared Hong Kong’s achievements in the development of digital education in Hong Kong at the 7th Asia-Pacific Economic Cooperation (APEC) Education Ministerial Meeting.

- The EDB collaborated with the HKEdCity and relevant organisations to hold the inaugural “Digital Education Week” from 30 June to 7 July 2025. Flagship events included the “Learning & Teaching Expo” and the “International Summit and Post-Summit Workshop Series on the Use of AI in the Learning and Teaching Languages and Other Subjects”. Local, Chinese Mainland and overseas experts shared the latest developments in I&T education (including the application of AI in teaching). In late June 2026, the EDB will continue to co-organise the second “Digital Education Week” with the HKEdCity, bringing together local experts and experts from various parts of the world to exchange practical strategies for further advancing the digitalisation of education.
- Additional examples of exchanges and collaboration with the Chinese Mainland and at the international level include:
  - Global Chinese Conference on Computers in Education (GCCCE)
  - The Global Chinese Academy for Science Education Research (GCASER) Conference
  - 3rd Guangdong-Hong Kong-Macau STEAM Education Conference
  - Greater Bay Area Youth Artificial Intelligence and Cybersecurity Challenge
  - Greater Bay Area Smart Rescue Challenge
  - The 7th Greater Bay Area STEAM Excellence Award (HKSAR)

## 2.6 Global trends of digitalisation of education

As the pace of global digitalisation continues to accelerate, the development path of digital education is becoming increasingly clear, encompassing the promotion of equity in education and building a secure and ethical digital environment.

- In 2022, the United Nations Transforming Education Summit identified the digital transformation of education as one of the five key action areas, and emphasised that digital transformation should benefit all learners.
- Digital education strategies across different countries all aim to cultivate students’ digital literacy and promote equity in education. Some more forward-looking countries have integrated AI and other digital technologies into teaching, learning and school management systems, while providing a secure, reliable and ethical digital environment.

## 3. Challenges

### 3.1 Rapidly evolving technological landscapes

- Digital technologies such as AI, virtual reality, big data, and cloud computing are developing rapidly and evolving constantly, with their scope of application continuing to expand. How to keep the supporting facilities for digital education and teacher training, etc. in primary and secondary schools in step with the development of emerging technologies has become a key challenge in promoting digital education in primary and secondary schools.

### 3.2 Equity in education

- Promoting educational equity is an important issue in the digitalisation of primary and secondary education. The HKSAR Government not only needs to promote equity in education so that students can benefit from high-quality learning experiences brought about by digital education, but also to drive educational innovation to build an equitable digital learning environment.

### 3.3 Impact of prolonged use of digital tools on students' physical and mental well-being

- As the use of digital tools in learning and daily life becomes increasingly common, if students use electronic devices for extended periods of time without self-discipline and the right attitude towards their use, it can easily affect their physical and mental development, giving rise to problems such as issues with eyesight, emotional well-being, and even social relationships.

### 3.4 Potential issues arising from the application of digital technology in education

- AI-generated content may contain erroneous, outdated, or inappropriate information. If students lack the proper values and the ability to make critical judgements, this may lead to excessive dependence, a weak sense of academic integrity (such as plagiarism and infringement of intellectual property rights), as well as risks related to data security and privacy.
- Teachers who use AI to support teaching must uphold the original purpose of education, which is nurturing students, and keep students' growth and development as the guiding principle. They should ensure that the application of digital technology remains aligned with educational goals, and avoid allowing digital tools to undermine or replace teacher-student interaction and the cultivation of values, which are integral to the educational process.

### 3.5 Teachers' training needs in AI and other digital technologies

- Digital technology evolves rapidly. There is a need for continuous training and support for teachers in mastering the application of new technological tools in L&T, and in addressing issues arising from the use of digital technology in L&T.

### 3.6 Disparities among schools in implementing digital education

- Disparities among schools in the implementation of digital education extend beyond hardware and network infrastructure. They may also be reflected in individual teachers' technological competencies in applying digital technology in teaching, as well as parents' and students' awareness of digital technology and readiness to embrace digital education. These disparities present challenges for schools in advancing digital education.

# Survey on the Use of Artificial Intelligence in Schools (2025/26 School Year)

From November to December 2025, the EDB conducted a questionnaire survey among all publicly-funded primary and secondary schools (including special schools) in Hong Kong. Questionnaires were sent to 533 primary schools and 503 secondary schools, and responses were received from 1 011 schools, with a response rate exceeding 97%. The survey results showed that schools have proactively initiated efforts in areas such as overall planning, learning, teaching and assessment, teacher professional development, and the utilisation of off-school resources.

## Overall planning of schools

- About 40% of primary schools and 50% of secondary schools have incorporated “Using AI to Support Learning and Teaching” into their School Development Plans/Annual School Plans. More than 40% of primary schools and 30% of secondary schools stated that they would incorporate “Using AI to Support Learning and Teaching” into their plans within the next one or two school years.
- More than half of primary and secondary schools have set up working groups to plan and coordinate the use of AI to support L&T. Among these, more than 60% of the working groups are led by vice-principals to coordinate the use of AI to support L&T.

## Learning, teaching and assessment

- In more than half of primary schools and the majority secondary schools, at least half of the teachers have already started using AI tools to facilitate L&T.
- Subject teachers of the languages, mathematics, science and technology, humanities, arts and physical education have all started using AI to assist their daily work in learning, teaching and assessment, including preparing L&T materials, designing L&T strategies, designing test and examination questions, as well as marking student work and providing feedback to students.

## Teacher professional development




- In close to half of the schools, all the teaching staff, including school leaders, middle management, and teachers have participated in the training programmes on “Using AI to Support Learning and Teaching”.
- Regarding “Using AI to Support Learning and Teaching”, the professional development activities currently most needed by schools include: preparing L&T materials, catering for learner diversity, designing L&T strategies, and marking student work and providing feedback to students.





## Utilisation of off-school resources





- More than 60% of primary schools and 80% of secondary schools have utilised funding or resources from the QEF to implement AI-assisted L&T.





## Annex 3





# List of Quality Education Fund e-Learning Ancillary Facilities Programme (eLAFP)




No.	Project title	Project overview	Target user
1	<p>LingoTask: An AI-Powered English Teaching and Learning System</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211097/">https://web.edcity.hk/en/elafp/project/20211097/</a></p>	<p>Developing an AI platform for English learning and teaching to automatically assess students' performance in listening, speaking, reading and writing.</p>	<p>Primary and Secondary Schools</p>
2	<p>Metaverse English Learning World – AI Companion Robot and Virtual Environment to Foster Students' English Speaking Skills</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211047/">https://web.edcity.hk/en/elafp/project/20211047/</a></p>	<p>Developing a learning platform that applies chatbot technology to train students' English listening and speaking skills.</p>	<p>Primary and Secondary Schools</p>
3	<p>Revitalising Open English Materials Through Multimedia Components and Creation of a Mobile Application to Support LTI: Facilitating Blended Learning and Self-directed Learning for Primary 1 to Secondary 6</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211065/">https://web.edcity.hk/en/elafp/project/20211065/</a></p>	<p>Developing a one-stop, comprehensive online English learning platform that integrates open-source English textbook content, complemented by multimedia resources and interactive features, to support the learning and teaching of English in primary and secondary schools.</p>	<p>Primary and Secondary Schools</p>

No.	Project title	Project overview	Target user
4	<p>Knowledge Overlord - A self-sustaining AI Game-based Online Platform to Enhance Student's Literacy Ability and 21st Century Skills</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211112/">https://web.edcity.hk/en/elafp/project/20211112/</a></p>	<p>Developing an e-learning platform that applies AI and games to promote reading, and establishes an online reading community to enhance students' language proficiency.</p>	<p>Primary and Secondary Schools</p>
5	<p>AI-assisted Virtual Reality English Speaking Program for Secondary Students</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211067/">https://web.edcity.hk/en/elafp/project/20211067/</a></p>	<p>Developing an AI system for English speaking training, including virtual reality (VR) software that provides immersive learning.</p>	<p>Secondary Schools</p>
6	<p>A New Learning Era of Learning, Evaluation and Teaching</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211107/">https://web.edcity.hk/en/elafp/project/20211107/</a></p>	<p>Developing an e-learning platform for senior secondary English Language, applying AI to assess and analyse students' learning performance and provide immediate feedback.</p>	<p>Secondary Schools</p>
7	<p>Animation, Coding, Cognitive Tool as Pedagogies for Subject Learning, Self-regulated Learning, and Computational Thinking Development: Coding, Chinese Language, English Language, and Mathematics</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211061/">https://web.edcity.hk/en/elafp/project/20211061/</a></p>	<p>Developing an e-learning platform that applies tools such as coding and AI to facilitate students' learning of relevant subjects, and developing their self-directed learning and computational thinking skills.</p>	<p>Primary Schools</p>

No.	Project title	Project overview	Target user
8	Dissemination of Borderless Lab365 Platform to Secondary and Primary Students  Website: <a href="https://web.edcity.hk/en/elafp/project/20211058/">https://web.edcity.hk/en/elafp/project/20211058/</a>	Developing a flipped laboratory platform for remote-controlled experiments and STEAM activities, enabling students to conduct science experiments without the constraints of time and location.	Primary and Secondary Schools
9	Developing e-Content for Robotics Education: Using Learning Management System to Promote Blended Learning Model and Content Sharing  Website: <a href="https://web.edcity.hk/en/elafp/project/20211085/">https://web.edcity.hk/en/elafp/project/20211085/</a>	Developing an e-curriculum and a learning management platform related to engineering design for students, and to share STEAM learning and assessment resources through the platform.	Primary and Secondary Schools
10	Programming e-Learning and Assessment Platform  Website: <a href="https://web.edcity.hk/en/elafp/project/20211096/">https://web.edcity.hk/en/elafp/project/20211096/</a>	Developing a learning and assessment platform for programming to support teachers in delivering the recently updated Information and Communication Technology (ICT) curriculum.	Secondary Schools
11	The use of Algorithms and AI Technologies to Enable Adaptive learning in Mathematical Education  Website: <a href="https://web.edcity.hk/en/elafp/project/20210742/">https://web.edcity.hk/en/elafp/project/20210742/</a>	Developing an adaptive e-learning system for secondary Mathematics Education.	Secondary Schools

No.	Project title	Project overview	Target user
12	E-Learning Platform of Chinese Art History and 3D Paintings  Website: <a href="https://web.edcity.hk/en/elafp/project/20210257/">https://web.edcity.hk/en/elafp/project/20210257/</a>	Developing a learning platform themed around ancient Chinese paintings to support students in learning the history of art development and Chinese history.	Primary and Secondary Schools
13	EduVenture® Self-directed Learning Resources Programme: General Studies (Science and Humanities) in Primary Education and Citizenship and Social Development in Secondary Education  Website: <a href="https://web.edcity.hk/en/elafp/project/20211023/">https://web.edcity.hk/en/elafp/project/20211023/</a>	Developing experiential field study resources for Primary Science / Primary Humanities and Secondary Citizenship and Social Development.	Primary and Secondary Schools
14	Geography e-Learning Package about Climate Change, Version 2.0  Website: <a href="https://web.edcity.hk/en/elafp/project/20211030/">https://web.edcity.hk/en/elafp/project/20211030/</a>	Developing L&T resources related to climate change using augmented reality (AR) / virtual reality (VR) technologies.	Secondary Schools
15	Use Innovative Technology to Make Assessment Paper Interactive, Collect Learning Data and Generate Analysis Automatically  Website: <a href="https://web.edcity.hk/en/elafp/project/20211069/">https://web.edcity.hk/en/elafp/project/20211069/</a>	Developing a conversion system that digitises printed assessment materials, enabling the automatic marking and analysis of students' learning as well as the provision of feedback.	Primary Schools

No.	Project title	Project overview	Target user
16	<p>Enhancing Literacy Education with Artificial Reality Neo-platform (eLEARN) 2.0</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211036/">https://web.edcity.hk/en/elafp/project/20211036/</a></p>	<p>Developing a virtual reality (VR)-assisted immersive learning platform to facilitate learning in Chinese Language, English Language, Science and Humanities in primary schools.</p>	<p>Primary Schools</p>
17	<p>Learning Management System and Knowledge Management with Artificial Intelligence and Big Data</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211072/">https://web.edcity.hk/en/elafp/project/20211072/</a></p>	<p>Developing a learning and teaching platform to provide educational resources and a database, and applying AI to analyse students' learning progress.</p>	<p>Primary and Secondary Schools</p>
18	<p>'Learning &amp; Teaching' Made Easier</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211105/">https://web.edcity.hk/en/elafp/project/20211105/</a></p>	<p>Developing an e-learning platform that promotes adaptive learning, to facilitate teachers in implementing L&amp;T activities as well as assessing student learning.</p>	<p>Primary and Secondary Schools</p>
19	<p>Intelligent Design-aware Learning Analytics Empowered 21C L&amp;T System</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20210212/">https://web.edcity.hk/en/elafp/project/20210212/</a></p>	<p>Developing an intelligent system to support teachers in learning design and learning analytics.</p>	<p>Primary and Secondary Schools</p>

No.	Project title	Project overview	Target user
20	<p>Apply AI Teaching and Classroom Management Skill Practice for Pre-service Teachers in Field Experience</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211038/">https://web.edcity.hk/en/elafp/project/20211038/</a></p>	<p>Developing an AI teacher training platform to analyse users' instructional design, teaching performance and classroom management skills.</p>	<p>Primary, Secondary and Special Schools</p>
21	<p>Using Big Data to “Teach precisely, Learn efficiently” to Further Develop One-stop Learning Management System and e-Learning Resources to Cater for Different Learning Needs</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20210461/">https://web.edcity.hk/en/elafp/project/20210461/</a></p>	<p>Developing a learning platform for students with special educational needs (SEN), alongside a suite of games to support students with dyslexia in learning English.</p>	<p>Primary and Special Schools</p>
22	<p>Digital Physical Quotient and Learning Platform</p>  <p>Website: <a href="https://web.edcity.hk/en/elafp/project/20211041/">https://web.edcity.hk/en/elafp/project/20211041/</a></p>	<p>Developing an intelligent platform capable of collecting and analysing children's gross and fine motor as well as cognitive development data to assess their physical and cognitive development.</p>	<p>Primary and Special Schools</p>

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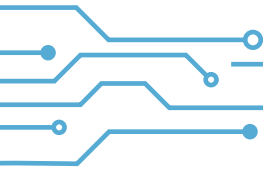
**Supplement I**

**AI Literacy Learning Framework for  
Primary and Secondary Schools**

Prepared by the Curriculum Development Council

Published by the Education Bureau, HKSARG

2026



# AI Literacy Learning Framework for Primary and Secondary Schools

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## I. Introduction

The *AI Literacy Learning Framework for Primary and Secondary Schools* (the Learning Framework) is compiled by the Ad Hoc Committee on Reviewing IT Learning Targets under the Standing Committee on STEAM Education of the Curriculum Development Council. This Learning Framework serves as a reference and a guide for schools in implementing artificial intelligence (AI) education across different Key Learning Areas (KLAs) and subjects, including the use of AI to facilitate learning and teaching. Schools should also make reference to the *Blueprint for Digital Education Development in Primary and Secondary Schools* and the *Guide to Using AI in Teaching in Primary and Secondary Schools* when planning and implementing AI education.

The Learning Framework articulates the rationale and objectives for integrating AI education into the Hong Kong primary and secondary school curriculum. It includes key learning focuses at each key stage, illustrative examples of application scenarios, and recommendations on the assessment of AI literacy.

At the heart of promoting AI education in primary and secondary schools lies the enhancement of students' AI literacy, equipping them to understand the knowledge and principles of AI, and to master technical applications, while upholding proper values and attitudes in a technology-empowered environment. AI education must be student-centred, placing emphasis on strengthening students' thinking and learning capabilities. Through the model of "human-AI collaboration, at the right time and for the right task", the focus is placed on nurturing students' innovative thinking, problem-solving skills and proper values, with the aim of enlightening their minds and enhancing their wisdom so that they can harness technology effectively. Guiding students to use AI responsibly and with critical discernment is the key foundation for nurturing their adaptability and creativity for the future, helping them to seize the opportunities and meet the challenges of the digital era.

## II. Rationale and Principles Underlying the Development of the AI Literacy Learning Framework for Primary and Secondary Schools

The Learning Framework adopts the philosophy of “learn to apply, apply to learn, learn to think, think to innovate”, and upholds the principle of “Technology for good”. It enables students to learn through practice, deepen their understanding through application, and internalise their learning through reflection, thereby continuously developing their AI literacy throughout the process, as well as using AI tools effectively, safely and responsibly. The development of the Learning Framework is built upon the following four principles:

- **Progressive development in alignment with students’ cognitive development**

In accordance with students’ cognitive development at different key stages, the Learning Framework adopts a spiral progression design. At the primary level, the emphasis is on developing students’ awareness of AI applications in personal and daily life, and experiencing its basic capabilities and limitations. At the secondary level, the emphasis advances knowing how to select and evaluate various AI tools, and learning to collaborate with AI to develop innovative solutions to problems, achieving “human-AI collaboration, at the right time and for the right task”.

- **Cross-disciplinary collaboration to foster a culture of purposeful AI use**

Given the wide-ranging applications of AI across different subjects, nurturing students’ AI literacy should not be confined to the Information and Communication Technology (ICT) related subjects in Technology Education KLA. The Learning Framework emphasises the organic integration of AI education into learning domains such as languages, humanities, arts, mathematics and science. Through application in cross-disciplinary domains and real-life contexts, students’ understanding of and reflection on AI in more diverse contexts are deepened, along with their ability to transfer and apply knowledge, steadily fostering their adaptability and creative problem-solving abilities for the future.

- **Human-centred approach to cultivating critical thinking**

With an emphasis that AI is designed by humans and serves humans, students should maintain independent thinking and exercise critical discernment when applying AI, while demonstrating empathy and ethical awareness. We should guide students to understand that they themselves are the key agents of knowledge construction and learning, while AI is merely an assistive learning tool. Students should use AI responsibly, developing the capacity to make good use of technology for continuous learning and informed decision-making.

- **Process-oriented approach to drive inquiry and innovation**

In the age of AI, where information can be easily generated, an individual’s capacity for thinking and innovation becomes even more critical. Therefore, the focus of AI education should not rest merely on mastering the operation of tools or producing technological products, but on valuing the learning process of human-AI interaction. While students are grounded in foundational knowledge, we place greater emphasis on nurturing their curiosity to ask “why” and enhancing their intrinsic motivation to learn and their capacity for judgement — these being the keys to enlightening their minds and enhancing their wisdom. Students should be guided to flexibly connect knowledge across different domains, and, through combining hands-on practice and deep thinking, to continuously attempt, refine, and reflect throughout the learning process. This enables students to learn to actively inquire, analyse problems, and put forward novel and valuable insights. In doing so, students not only cultivate a spirit of active learning but also develop their ability to innovate, practise the principle of “Technology for good”, and inject sustained momentum into their future personal development.

### III. Learning Objectives for Cultivating AI Literacy in Primary and Secondary Students

At present, there is no universally agreed definition of “AI Literacy” in the international community. However, there is a common consensus that students should acquire knowledge of and the ability to apply AI, be able to make critical and discerning judgement about its benefits and potential risks, and use AI ethically.

With regard to cultivating students’ AI literacy, primary and secondary students must acquire the following knowledge, skills, and attitudes:

- **Understanding the foundational knowledge and concepts of AI:** Being able to master the fundamental principles and operations of AI, to select and apply AI tools according to need, and to analyse and evaluate the content generated by AI;
- **Possessing the problem-solving and innovation capabilities:** Being able to use AI effectively in subject learning and real-life contexts, to solve problems through human-AI collaboration, and to develop innovative thinking;
- **Developing critical thinking and proper values and attitudes:** Being able to understand the moral and ethical implications of AI, including issues such as cyber security, data and privacy protection, and information authenticity, and to practise “Technology for good” by using AI responsibly and making informed decisions.

## IV. The Strand of AI Literacy

Students need to learn and master the fundamental operating principles of AI, understand human-AI communication and collaboration, and apply AI technologies with critical discernment.

- **Fundamental operating principles of AI**

Students should understand the fundamental operating principles of AI, including the core concepts such as data, algorithms, and computing power. They should also be able to collect and process multimedia data, and use various types of sensors, as well as acquire knowledge related to topics such as machine learning, deep learning.

- **Human-AI communication and collaboration**

Through human-AI communication, people interact and communicate with AI using natural language, prompts, and coding. AI possesses the ability to recognise and reason, make predictions based on data, and generate text, images, and code, while also automating highly repetitive tasks, thus transforming the landscape of modern industries and the skill requirements for different jobs. In the context of learning and teaching, students therefore need to effectively practise “human-AI collaboration, at the right time and for the right task”, so that AI becomes an assistive learning tool that prepares them for the future. When using AI for learning, students need to build upon human wisdom, emotions, and the proper values. Students must also possess critical thinking, using AI tools responsibly and refraining from placing blind trust in information generated by AI.

- **Reflection on using AI**

AI is not omnipotent and carries with it inherent risks. It lacks moral awareness and genuine emotions; its creativity is constrained by existing data and is prone to data bias caused by deficiencies in training data. Moreover, the rapid development of AI has given rise to enormous demands on energy and resources, and has sparked concerns such as data privacy and security, and intellectual property disputes, and even the unethical use of AI to generate misinformation, presenting significant challenges to the ethical norms and legal frameworks of society. Therefore, students should reflect on the use of AI so that they can use AI and other digital technology tools ethically.

The table below sets out the strands, areas and content of AI literacy:

Strand	Area	Content
Fundamental Operating Principles of AI	Core Concepts of AI	<ul style="list-style-type: none"> <li>• Data</li> <li>• Algorithms</li> <li>• Computing power</li> </ul>
	AI Perception	<ul style="list-style-type: none"> <li>• Multimedia data</li> <li>• Sensors</li> </ul>
	“Learning” of AI	<ul style="list-style-type: none"> <li>• Machine learning</li> <li>• Deep learning</li> </ul>
Human-AI Communication and Collaboration	Human-AI Communication	<ul style="list-style-type: none"> <li>• Prompts</li> <li>• Coding</li> </ul>
	AI Capabilities	<ul style="list-style-type: none"> <li>• Recognition</li> <li>• Reasoning</li> <li>• Generation</li> <li>• Prediction</li> <li>• Automation</li> </ul>
	Qualities and Capabilities Required for Human-AI Collaboration	<ul style="list-style-type: none"> <li>• Computational thinking</li> <li>• Sense of responsibility</li> <li>• Empathy</li> <li>• Critical thinking</li> <li>• Creativity</li> </ul>
Reflection on using AI	Limitations of AI	<ul style="list-style-type: none"> <li>• Bias</li> <li>• Hallucination</li> <li>• Lack of moral awareness</li> <li>• Limited creativity</li> </ul>
	Impact of AI on Society	<ul style="list-style-type: none"> <li>• Privacy</li> <li>• Intellectual property rights</li> <li>• Misinformation</li> <li>• Safety and risk</li> <li>• Morals, ethics, and norms</li> <li>• Energy and resource demands</li> <li>• Transformation of industries, education and public services</li> <li>• Human resources and productivity</li> <li>• AI development and national security</li> </ul>

Table 1: Strands, areas and content of AI Literacy

## V. Implementation of AI Education across Key Learning Areas and in Cross-disciplinary Areas

In learning AI, students acquire foundational AI knowledge and skills through ICT related subjects under the Technology Education KLA, and apply AI in different KLAs and cross-disciplinary areas, such as STEAM education.

AI application scenarios are wide-ranging, covering areas from individual's everyday life experiences and subject learning, to national and social economic development, and even global sustainable development. Through cross-disciplinary learning or project learning, students can deepen their understanding and application of technology in real-life contexts. At the same time, by exploring the impact of technology on society, they can further develop a responsible and ethical attitude towards the use of AI.

The following elaborates on the connection between the learning and application of AI and different KLAs/subjects and cross-disciplinary areas at the primary and secondary levels.

- **Learning AI**

Students acquire the foundational knowledge and fundamental operating principles of AI in ICT related subjects under the Technology Education KLA, so as to develop logical thinking and problem-solving abilities. The Learning Framework arranges core concepts (such as data, algorithms, and computing power) in a spiral progression across different key stages, in order to build a learning foundation of AI literacy.

- **Applying AI**

Within the Science, Mathematics and Technology Education KLAs and STEAM education contexts, students engage in learning activities such as scientific inquiry, mathematical modelling, engineering practice to apply AI knowledge and technology. Combined with data analysis and design thinking, students design and implement innovative solutions to address problems in the real-life contexts.

Students also practise the application and creative use of AI in other KLAs (such as Languages, Humanities, and Arts) and in cross-disciplinary areas, fostering their creativity, problem-solving capabilities, and critical thinking abilities. They also gain an understanding of the ethical, legal, and social implications of AI, and learn to abide by laws and regulations while using AI responsibly and ethically.

## VI. Learning Objectives and Key Learning Focuses at Different Key Stages

The Learning Framework incorporates learning objectives and focuses that spiral progressively across different key stages, with specific details to be elaborated in the curriculum documents of individual subjects<sup>1</sup>. Schools should follow the recommendations of the Learning Framework for different key stages to nurture students' AI literacy progressively and sequentially. Teachers may also adjust the learning content and design learning and teaching activities based on students' abilities and needs, in order to stimulate their motivation, encourage self-directed learning, and fully embrace the rationale of “learn to apply, apply to learn, learn to think, think to innovate”.

### 1. Learning Objectives at Each Key Stage

- **At the lower primary level**, the focus is on perception and experience. Students develop an initial awareness of AI and its uses through everyday examples and experiential activities.
- **At the upper primary level**, the focus is on understanding and fostering interest. Students learn about the basic operation of AI and explore foundational applications such as speech recognition and image classification. This enables them to develop computational thinking, and try using AI tools to support their learning and solve simple problems, thus gaining an understanding of the benefits and limitations of AI as well as the norms governing its personal use.
- **At the junior secondary level**, the focus is on understanding and logical construction. Students acquire an understanding of the machine learning workflow, grasp key concepts such as data, algorithms, and computing power, deepen their computational thinking and practise design thinking. Students should progressively develop the ability to evaluate the effectiveness and limitations of AI, and foster critical thinking and a responsible attitude towards its use.
- **At the senior secondary level**, the focus is on application and value innovation. Students deepen their understanding of the core concepts of AI through subject learning and diverse learning experiences, enabling them to navigate daily life in the era of intelligence and recognise opportunities for further studies and future development. Building on this, the curriculum emphasises encouraging students to use relevant tools for innovation and collaboration, to construct AI assistive tools, and to consider ethics and responsibility while understanding the impact of technology on society.

<sup>1</sup> At the time of releasing this Learning Framework, the curriculum documents for all subjects at the primary and secondary levels are currently being reviewed and updated.

## 2. Key Learning Focuses at Each Key Stage

The learning of AI is grounded in the ICT related subjects at primary and secondary levels, enabling students to acquire foundational knowledge and fundamental principles of AI, and also AI related skills. As for “Applying AI”, its application and human-AI collaboration scenarios can be flexibly integrated into various KLAs and cross-disciplinary areas. This allows students to deepen their learning and practical application in different contexts, as well as address social, moral, and ethical issues related to AI, thus fostering essential competencies, such as critical thinking, problem-solving, innovation, and self-directed learning.

The table on the following page outlines the key focus areas and content related to “Learning AI”, “Applying AI” and “Attitude towards Using AI with Care” across different key stages.

Key Stage and Focus	Learning AI	Applying AI	Attitude towards Using AI with Care
	Ethics and Morality <sup>2</sup>		
	Technology Education (ICT related subjects)	Various KLAs and Cross-disciplinary Areas	
Key Stage 1 <b>Contacting and Experiencing with AI</b>	<ul style="list-style-type: none"> <li>▪ Aware of the applications of AI in everyday life</li> <li>▪ Develop an initial understanding of computational thinking through “unplugged” activities (e.g. classification, sorting, and finding patterns)</li> <li>▪ Know that AI can generate text, images, videos, audio and other content</li> </ul> <p>[Note: At this key stage, students primarily learn through practical activities. Prolonged use of electronic devices is not recommended. To establish responsible habits in using AI, students should use electronic device under the guidance of teachers or parents/guardians.]</p>		<ul style="list-style-type: none"> <li>▪ Follow usage rules and establish good and healthy usage habits</li> <li>▪ Know that AI-generated content may be inaccurate or false, and should not be trusted lightly</li> <li>▪ Protect personal data (privacy) responsibly, be mindful of the impact on others, and respect copyright</li> </ul>

<sup>2</sup> Morality and ethics (such as empathy, responsibility, integrity), are the core competencies in the age of AI. As AI affects the authenticity of information and societal values, students must develop ethical judgement and critical thinking abilities. This enables them to avoid being misled at the informational level, prevent misuse of technology at the application level, and collaborate with technology thoughtfully and responsibly.

Key Stage and Focus	Learning AI	Applying AI	Attitude towards Using AI with Care
	Ethics and Morality <sup>2</sup>		
	Technology Education (ICT related subjects)	Various KLAs and Cross-disciplinary Areas	
Key Stage 2 <b>Interacting with AI</b>	<ul style="list-style-type: none"> <li>▪ Know about the basic concepts and applications of information processing, such as the “input-process-output” concept, types of multimedia data (e.g. text, images, audio), and ways of collecting and using data in daily life</li> <li>▪ Know about the computer systems, including basic components such as processors, storage devices, and input/output devices, and understand their relationships with AI systems (e.g. processors and computing power, sensors and data collection)</li> <li>▪ Understand and apply foundational concepts of computational thinking in order to write programs that handle input and output, and control physical objects</li> <li>▪ Understand the similarities and differences between AI and human work patterns, recognising that AI is not all-powerful</li> <li>▪ Understand preliminarily the three key elements affecting performance of AI: Data, algorithms, and computing power</li> </ul>	<p><b>Various KLAs and cross-disciplinary areas</b></p> <ul style="list-style-type: none"> <li>▪ Understand preliminarily the development and applications of AI</li> <li>▪ Operate AI tools related to learning activities, such as using prompts</li> <li>▪ Use AI to assist in problem-solving, such as providing feedback on understanding an issue and its solutions, or co-creating innovative ideas to address problems</li> <li>▪ Evaluate and fact-check AI responses and generated content</li> <li>▪ Experience and understand both the capabilities (e.g. recognition and generation) and the limitations (e.g. lack of moral awareness) of AI</li> </ul> <p><b>Science, Mathematics and Technology Education KLAs / STEAM education</b></p> <ul style="list-style-type: none"> <li>▪ Use coding to control physical objects and interact with the environment</li> <li>▪ Conduct simple data training</li> </ul>	<ul style="list-style-type: none"> <li>▪ Identify the authenticity of information (including deepfake and misinformation)</li> <li>▪ Safeguard personal and others’ data (privacy)</li> <li>▪ Protect intellectual property rights</li> <li>▪ Value academic integrity when using AI</li> <li>▪ Know about the acceptable and unacceptable behaviour when using AI</li> </ul>

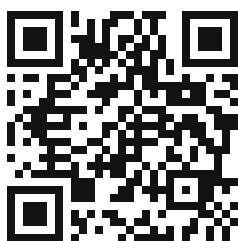
Key Stage and Focus	Learning AI	Applying AI	Attitude towards Using AI with Care
	Ethics and Morality <sup>2</sup>		
	Technology Education (ICT related subjects)	Various KLA's and Cross-disciplinary Areas	
Key Stage 3 <b>Understanding and Making Effective Use of AI</b>	<ul style="list-style-type: none"> <li>▪ Understand further the three key elements affecting the performance of AI, including data, algorithms, and computing power</li> <li>▪ Know about the fundamental hardware of AI systems</li> <li>▪ Understand how AI systems process different types of data (e.g. text, images, and audio)</li> <li>▪ Understand the fundamental principles of “learning” of AI (e.g. machine learning and deep learning)</li> <li>▪ Recognise how natural language processing facilitates human-AI communication</li> <li>▪ Know about the AI applications in ICT field (e.g. image recognition, speech synthesis, vibe coding, and other emerging applications)</li> <li>▪ Know about the biases and their causes (including algorithmic and data bias)</li> <li>▪ Use different data to “train” AI systems, and analyse how these data affect outcomes</li> <li>▪ Solve problems by coding, design and apply algorithms, and integrate with AI to optimise solutions</li> </ul>	<p><b>Various KLA's and cross-disciplinary areas</b></p> <ul style="list-style-type: none"> <li>▪ Use AI to assist in data processing</li> <li>▪ Know about the development and applications of AI</li> <li>▪ Use AI tools to facilitate learning</li> <li>▪ Operate AI tools relevant to learning activities, such as planning prompts and refining them through feedback</li> <li>▪ Apply subject-specific AI assistants</li> <li>▪ Analyse and evaluate content generated by AI systems</li> <li>▪ Know about the capabilities of AI (e.g. reasoning, automation, prediction) and its limitations (e.g. bias and hallucination)</li> <li>▪ Know about the applications and impact of AI technology on various aspects of society (e.g. enhancing productivity and impact on human resources)</li> <li>▪ Know about the impact of AI on energy and resource demands</li> <li>▪ Understand the country’s development and achievements in the field of AI</li> </ul> <p><b>Science, Mathematics and Technology Education KLA's / STEAM Education</b></p> <ul style="list-style-type: none"> <li>▪ Apply AI to assist in scientific inquiry, mathematical modelling, engineering practice, etc.</li> <li>▪ Apply coding and design thinking to develop innovative solutions for use in STEAM education activity scenarios to practise data training, or create AI assistants</li> </ul>	<ul style="list-style-type: none"> <li>▪ Select appropriate AI tools to assist learning, daily life, and creative endeavours</li> <li>▪ Evaluate the safety and risks of AI-generated content</li> <li>▪ Be alert to the impact of unethical and unlawful use of AI on individuals, society, and national security</li> <li>▪ Follow the compliance with laws and regulations in using AI</li> <li>▪ Be aware of the consequences of over-reliance on AI</li> <li>▪ Understand the impact of algorithmic and data bias</li> </ul>

Key Stage and Focus	Learning AI	Applying AI	Attitude towards Using AI with Care
	Ethics and Morality <sup>2</sup>		
	Technology Education (ICT related subjects)	Various KLAs and Cross-disciplinary Areas	
Key Stage 4 <b>Application and Innovation of AI across Different Fields</b>	<ul style="list-style-type: none"> <li>Understand how AI drives the development of emerging technologies (e.g. the Internet of Things and cloud computing)</li> <li>Know about the advanced concepts of AI (e.g. neural networks, machine learning models, and other related derived concepts)</li> <li>Analyse the types, causes, and strategies for addressing algorithmic bias</li> </ul>	<p><b>Various KLAs and cross-disciplinary areas</b></p> <ul style="list-style-type: none"> <li>Use AI to assist in data analysis</li> <li>Use AI for self-directed learning</li> <li>Understand the latest development in AI applications and impact on various aspects of society (e.g. changes in industry, education and public services)</li> <li>Understand and briefly evaluate the benefits and potential risks of AI applications to the society (including national security)</li> <li>Develop innovative AI solution in different fields that contribute to the community</li> </ul> <p><b>Science, Mathematics and Technology Education KLAs / STEAM education</b></p> <ul style="list-style-type: none"> <li>Apply AI in advanced scientific inquiry, mathematical modelling, engineering practice, or coding tasks for creative problem-solving</li> <li>Conduct data training or create appropriate AI assistants in line with problem-solving tasks in STEAM education</li> </ul>	<ul style="list-style-type: none"> <li>Deepen the concerns from each of the above key stages regarding the responsible use of AI</li> <li>Foster critical thinking and effective use of AI to enhance effectiveness of self-directed learning and creative work</li> <li>Further strengthen human-AI collaboration capacity</li> </ul>

## VII. Examples of Application Scenarios

Schools should promote AI education through a whole-school and “AI + Curriculum” approach. Through learning within the ICT related subjects under the Technology Education KLA, students should be enabled to master the principles and applications of AI. At the same time, schools should incorporate AI learning elements across other KLAs, in cross-disciplinary areas and in life-wide learning activities, to enrich students’ experiences in learning and applying AI, thus enhancing their AI literacy.

Teachers may refer to the following sample scenarios to design diversified learning activities for the implementation of AI education. More examples are available on the Education Bureau website, which will be updated from time to time as needed.



<https://www.edb.gov.hk/en/DEBP>

### Examples of Application Scenarios

Subject	Activity	Content	Key Considerations for Students when Applying AI in Learning
<b>Primary Humanities (Primary 4)</b>	Time Machine	<p><b>Past and Present of Hong Kong</b></p> <ul style="list-style-type: none"> <li>Students conduct field visits (e.g. museum visits) and read books and newspapers to gather information about Hong Kong’s social development in the past. They also interview their elderly family members at home to collect relevant oral history materials through their sharing of past daily life.</li> <li>Students use AI tools to generate information about clothing, food, housing, and transportation from the 1960s to 1970s, as well as photos depicting Hong Kong’s past appearance. They then integrate these AI-generated “clues” with findings from field visits and information from books and newspapers, and conduct comparison and analysis to complete a “Time Machine” thematic report.</li> </ul>	<ul style="list-style-type: none"> <li><b>Fact-checking:</b> Students must be aware that AI tools may generate information that does not align with facts, and should fact-check by using different sources. When the information provided by AI tools differs from the memories of elderly family members or the facts from government websites, students should first fact-check and use accurate information. They should also reflect on the potential factors causing the errors made by AI tools and understand their limitations.</li> <li><b>Privacy protection:</b> When using AI tools, students should understand that they must never upload personal information about themselves or their family members (e.g. such as real names, addresses, or unedited front-facing photos) to AI platforms, so as to safeguard personal and family privacy.</li> </ul>

Subject	Activity	Content	Key Considerations for Students when Applying AI in Learning
<p><b>Primary Science (Upper Primary)</b></p>	<p>Campus Plant-explorers</p>	<p><b>Investigating Biodiversity and Classification on the School Campus</b></p> <ul style="list-style-type: none"> <li>• The teacher leads students to investigate different plants on the school campus. Students begin by making careful first-hand observations of visible features, including leaves, flowers, fruits, stems and growing conditions. They record their observations using written notes, simple labelled diagrams or photographs.</li> <li>• In groups, students identify similarities and differences among the plants and propose a simple way to classify them. They use observable evidence, such as leaf shape, flower colour, plant height and growing location, to justify their classification. After completing their own observation and preliminary classification, students use an AI image recognition tool to support plant identification. They compare the AI-generated results with their own evidence and evaluate whether the suggested identification is consistent.</li> <li>• Students further check their findings by referring to plant guides, reliable websites, school plant records or their teacher’s advice. They then summarise their work into a concise Campus Plant Observation Record.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Respect for privacy and upholding ethics:</b> When making observations and taking records, students should protect privacy, respect living things and care for the school environment. For example, they should avoid photographing people’s faces, and should not damage or remove plants.</li> <li>• <b>Spirit of scepticism:</b> Students should carry out their own observations and records before using AI as a support tool. They should avoid relying on AI for plant identification from the outset, or accepting AI-generated answers uncritically.</li> <li>• <b>Critical thinking:</b> Students should compare the AI-generated results with their own observations. For example, they should consider whether features such as leaf shape, flower colour and growing conditions match their observations, and judge whether the AI suggestion is reasonable.</li> <li>• <b>Truth-seeking Spirit:</b> Students should understand that AI cannot provide the final answer on its own. They need to verify the result further by consulting plant guides, reliable sources or the teacher’s guidance.</li> </ul>

Subject	Activity	Content	Key Considerations for Students when Applying AI in Learning
<p><b>Citizenship, Economics and Society (Junior Secondary)</b></p>	<p>Guardians of Truth</p>	<p><b>Media and Information Literacy</b></p> <ul style="list-style-type: none"> <li>Using real-life scenarios illustrating “Seeing is not always believing”, students are guided to analyse the ethical issues and risks arising from AI deepfake technology. The teacher can display AI-generated deepfake video clips generated to prompt students to reflect on the ethical challenges regarding integrity and responsibility when AI tools are maliciously misused for profit or to spread chaos.</li> <li>At the same time, the teacher and students explore practical techniques for identifying deepfakes, such as observing facial details (e.g. blinking or edge distortions) and conducting cross-verification of information. This helps students develop critical thinking skills and foster the correct attitude of proactive verification when encountering online misinformation.</li> </ul>	<ul style="list-style-type: none"> <li><b>Spirit of scepticism and fact-checking:</b> Students should understand that AI deepfake technology can cause harm to society and others. It is vital to develop critical thinking skills, maintain a skeptical attitude towards the authenticity of information, and refer to credible media, official sources, and verified content, thereby cultivating an awareness of fact-checking.</li> <li><b>Upholding ethics and abiding by the law:</b> Students must also use digital technology correctly, employ AI tools in an ethical and law-abiding manner, and understand that the dissemination of information carries corresponding ethical and legal consequences.</li> </ul>

## VIII. Assessment of AI Literacy

The assessment of AI literacy should focus on whether students are able to “learn to apply, apply to learn, learn to think, think to innovate”. The relevant principles are as follows:

- **Diversified assessment modes:** The assessment of AI literacy should not be confined to pen-and-paper tests or rote memorisation of knowledge. Instead, a variety of modes should be used to assess students’ ability to apply knowledge, practical capabilities, and innovative thinking.
- **Process over outcome:** Based on the focus and design of the learning tasks, assessment should evaluate students’ understanding of the project, the process of interacting with AI, and the learning outcomes at different stages.
- **Anchored in authentic contexts:** Assessment should be anchored in problem scenarios that closely reflect real life, in order to assess students’ ability to apply what they have learnt to solve practical problems, with a focus on higher-order thinking and the flexible application of knowledge across different domains.
- **Balancing knowledge and values:** Assessment should go beyond knowledge and technology, and cover ethical dimensions, critical thinking capabilities, and attitudes towards human-AI collaboration. The goal is to understand whether students are able to make good use of AI and collaborate with it for learning, problem-solving and innovation, as well as for the benefit of the community.

## IX. Conclusion

The core of cultivating AI literacy is that students must not only understand how to use AI and other technological tools, but also be able to critically consider the purposes for which they are used, to critically evaluate AI output, and to retain the ultimate decision-making authority, avoiding blind reliance on AI. Students are the agents of their own learning and must never rely on AI to think on their behalf. Instead, they should make good use of AI as a collaborative tool to analyse and solve problems, actively scrutinise the accuracy of AI-generated outputs, and take responsibility for their final answers. Students must possess the ability to identify errors and misinformation, and decide whether to accept, reject, or modify outputs generated by AI in light of any ethical biases, thereby demonstrating critical thinking, and truly taking ownership in their learning and decision-making process.

In an era where AI application has become a normal part of daily life, students must demonstrate empathy and humanistic qualities when learning to apply AI to formulate solutions to social issues. We will develop students from “apply to learn” to “think to innovate”, enabling them to understand how AI operates, to use it responsibly, and to co-create with it for solutions that benefit human well-being. By upholding the principle of “Technology for good”, students should actively embrace the opportunities and challenges brought about by technology.

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Director, Centre for Information Technology in Education, Faculty of Education, The University of Hong Kong

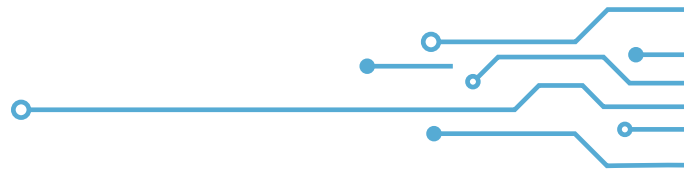
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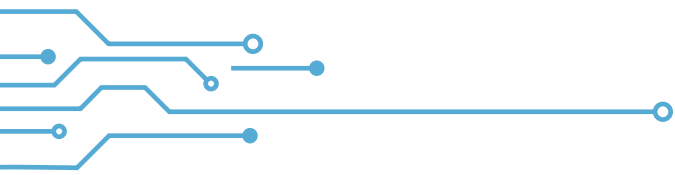
Chairman, Association of I.T. Leaders in Education

### Secretary

#### **Ms LAU Wai-mei, May**

Curriculum Development Officer (Technology Education),  
Innovation Technology Education Division, Education Bureau





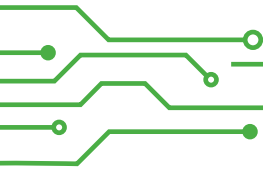


## **Supplement II**

# **Guide to Using AI in Teaching in Primary and Secondary Schools**

Published by the Education Bureau, HKSARG

2026



Supplement II  
Guide to Using AI in Teaching in  
Primary and Secondary Schools



# Guide to Using AI in Teaching in Primary and Secondary Schools

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## I. Introduction

The Guide to Using AI in Teaching in Primary and Secondary Schools (Guide) outlines the fundamental principles for teachers in respect of using artificial intelligence (AI) in teaching (including the necessary changes in knowledge, attitudes and skills) amid the rapid advancement of the era of digital technology, as well as the areas requiring attention when using AI in learning, teaching and assessment.

## II. Guiding Principles for Using AI in Teaching

### 1. Rooted in education, assisted with technology

Despite the increasingly widespread use of digital technologies in education, nurturing students remains the fundamental focus of education. This involves realising the educational philosophy of cultivating values and nurturing people to foster students' whole-person development. Since AI tools are devoid of emotion, important aspects of education, such as values education, emotional development, psychological support for students and the development of creativity, must be led by teachers rather than delegated to technology, ensuring that due consideration is given to students' affect. Teachers should uphold the principle of mindful use of technology and ethical use of AI tools, thereby appropriately cultivating in students such positive values and attitudes as humanistic qualities, ethical awareness and integrity, and empowering them to leverage technology to enhance their learning effectiveness while using innovation and technology (I&T) for the betterment of society.

### 2. Leverage technology to benefit students while guarding against over-reliance

Teachers and students should acquaint themselves with the nature of AI, its limitations, and its function as a tool. Teachers should explore how to use AI tools effectively to enhance learning effectiveness, but at the same time avoid over-reliance on AI tools or over-emphasis on technical operations (i.e. avoiding “using AI for the sake of using AI”). In the AI era, it is more crucial than ever for talents to possess sound judgement, creativity, problem solving abilities, communication skills and critical thinking skills. Teachers must therefore be vigilant against students becoming overly reliant on AI tools, preventing them from falling into the trap of being “technologically advanced with lower-order thinking”, or replacing their own thinking process with AI. The appropriate use of AI helps minimise repetitive tasks for teachers, reduce their workload and enhance their capacity, providing them with more time and space for innovating and refining

pedagogical designs, catering for the diverse needs of students (including their physical and mental well-being). Furthermore, learning and teaching could be progressively tailored to students' cognitive and affective development, which would ultimately benefit students.

### 3. Empower teachers to make full use of AI to facilitate paradigm shift

“AI for ALL subjects” is an irreversible trend that deepens a student-centred pedagogical paradigm. This fundamental change is not confined to teachers of specific subjects. Instead, all teachers, regardless of their subject(s) taught or post(s) held, can leverage AI to enhance students' learning effectiveness, support services, and administrative efficiency (i.e. “AI for ALL teachers”). AI cannot replace the role of teachers, and its use in teaching should remain student-centred, serving as an assistant to help better cater for students' diverse learning needs, interests and abilities.

### 4. Manage risks, provide guidance and foster AI literacy

AI brings enormous opportunities to education, such as pedagogical innovations and shifts in modes of learning, assessment and support. However, it also presents numerous challenges, including risks related to misuse, abuse, ethics, morality, privacy and legality. Thus, teachers must:

- possess a basic understanding of relevant core topics and remain particularly vigilant about the ethical risks, legal liabilities (such as deepfake crimes) and privacy concerns (such as over-sharing of personal data) that may arise from the use of AI;
- act as role models in educational settings to cultivate students' AI literacy (i.e. “AI literacy for ALL”), promptly pointing out the adverse consequences of over-reliance on or abuse of AI in learning, with a view to preventing them from outsourcing to AI tools critical learning processes, such as information search, analysis, synthesis, reflection and judgement, which would hinder the development of their thinking skills;
- use AI appropriately, and consistently strive to foster students' proper values, critical thinking skills and sense of social responsibility.

### 5. Reflect and optimise pedagogy, uphold professionalism, and keep pace with the times

Teachers may have varying starting points in using AI in teaching, and pedagogical paradigm shift cannot be achieved overnight. At the early stage of using AI in teaching, teachers must:

- acknowledge their shared responsibility to use AI in teaching, familiarise themselves with the *Blueprint for Digital Education Development in Primary and Secondary Schools* (Blueprint)

and the *AI Literacy Learning Framework for Primary and Secondary Schools* (Learning Framework) as early as possible, and understand the literacy (i.e. knowledge, skills, values and attitudes) required for students to learn and use AI technologies at different key stages;

- set self-requirements for using AI in teaching from initial trials to enhanced applications in a progressive manner, with the goal of becoming proficient in using AI within a reasonable timeframe (e.g. around two years); and actively engage in lesson observations and professional exchanges, consistently reviewing the benefits for students;
- continuously review and update the expectations and requirements for students regarding the use of AI in learning in the light of the latest advancements of digital technologies and students' learning needs;
- acquire the professional knowledge and skills to use AI in teaching through continuous learning; consistently reflect on, enhance and innovate teaching strategies with a view to increasing learning effectiveness and catering for learner diversity; and cultivate a deeper collaborative culture, manifest professionalism, and co-create a digital education ecosystem through school-based professional development and research activities such as collaborative lesson planning and peer lesson observation cum evaluation.

## 6. Deepen understanding of and exercise prudence in using AI

Teachers should deepen their understanding of the nature and fundamental principles behind the learning data generated by AI tools (such as the concepts of large language model (LLM) and the underlying operations of AI), as well as their limitations, thereby gatekeeping AI-generated pedagogical materials in a professional manner. For instance, teachers should:

- remain cognisant that AI outputs are algorithmic results generated from databases making reference to past information collected, which may contain misinformation, insufficient data or biases, and provide erroneous data, misleading information or even AI hallucinations where the information generated is entirely fabricated;
- use prompts cautiously and precisely, train and calibrate AI tools appropriately, and objectively analyse multiple data sources, so as to accurately gauge students' learning progress, and adjust pedagogical content, strategies and pacing to cater for learner diversity;
- maintain sharp professional acumen and carefully scrutinise the information and recommendations generated by AI tools (such as assessing whether the content is factually accurate, free from inappropriate values, and whether the feedback generated might be

impersonal and may induce negative emotions of students); exercise professional judgment with thorough verification of content across multiple sources and due consideration of students' feelings such that no AI-generated material is directly adopted without prior vetting.

## 7. Ensure legal compliance and a safe learning environment

The use of AI in teaching must strictly comply with the laws of Hong Kong and school administrative regulations. To this end, teachers should possess the requisite legal, administrative and computer knowledge to minimise the risk of data breach and cultivate a healthy, safe and reliable digital learning environment for students of all ages, helping them develop good habits in AI-assisted learning. For instance, teachers should:

- strictly prohibit the use of AI tools to generate content that endangers national security, disrupts social order, or violates social and moral norms (such as promoting pornography, violence or illegal acts, or intentionally fabricating or disseminating false information); should any content generated involve sensitive issues relating to national security, sovereignty and territorial disputes, or improper values, teachers should remove the material and seek advice from the school management;
- ensure that the collection and processing of student learning data via AI tools comply with the Personal Data (Privacy) Ordinance, the Copyright Ordinance, relevant guidelines issued by law enforcement agencies (such as the *Cybersecurity Guidebook for Schools in Hong Kong*) jointly published by the Hong Kong Police Force and other organisations including the Hong Kong Internet Registration Corporation Limited), and relevant school regulations; the use of such data must remain fully compliant and transparent, and a cautious approach to digital footprint should be maintained;
- handle student data with caution and conduct ongoing review and adjustment of the default privacy settings of AI tools with reference to appropriate usage guidelines, thoroughly considering its impact on students' cognitive and affective development. For example, the Learning Framework recommends that the lower primary levels should focus on developing students' initial perception of and experiencing AI technologies. Even for upper primary students, generative AI tools should in principle only be used under the guidance of teachers or guardians, as these students are not yet fully capable of independently assessing the authenticity of the content generated;

- factor in students’ physical and mental well-being into AI teaching design and assignments to avoid counter-productive effects. In this regard, the Department of Health (DH) provides relevant recommendations on its “Healthy Use of Internet and Electronic Screen Products” webpage<sup>1</sup> for children, adolescents, parents and teachers; and the World Health Organization has also long expressed concerns over the physical and mental health issues arising from excessive digital immersion following the widespread penetration of the Internet (such as social media addiction<sup>2</sup>);
- effectively utilise appropriate hardware (such as computing devices, coding equipment and school-based AI-related facilities) alongside safe and reliable software platforms (such as vetted AI tools on the market); and formulate clear usage guidelines to progressively foster students’ proper values and attitudes, which include protecting privacy, respecting academic integrity, and employing digital technologies ethically.

## 8. Uphold equity, diversity and inclusion in education

Teachers should ensure that AI technologies are used to support an inclusive and equitable quality education for all. To foster equity, diversity and inclusion in education, students of diverse backgrounds, abilities and aptitudes must be afforded equal learning opportunities. For instance, teachers should:

- utilise AI when designing teaching activities and assignments to provide diversified learning resources and activities, adjust difficulty levels for learning, and offer personalised support;
- employ voice assistive aids or visualised teaching materials to cater for students with special educational needs, and provide targeted support that enhances learning outcomes, enabling students to realise their potential and enjoy opportunities for all-round development.

<sup>1</sup> The DH provides recommendations on daily screen time limits, eye protection measures, and other health-related practices for children and adolescents across various age groups (referred to as “Health Tips”; for details, please visit <https://www.studenthealth.gov.hk/english/internet/recommendations/recommendations.html>). In response to the recommendations in the Chief Executive’s 2025 Policy Address, the DH has established an inter-departmental expert group to review the latest scientific evidence, as well as developments and experiences in other countries and regions. The expert group will consolidate expert opinions to update the relevant health recommendations accordingly.

<sup>2</sup> Symptoms of social media addiction include an inability to regulate usage, the emergence of withdrawal symptoms, the neglect of other activities in favour of social media, and adverse impacts on daily life resulting from excessive use. Other associated health and well-being issues include sleep deprivation, delayed bedtimes, obesity, psychological problems, cyberbullying, and neck problems.

In conclusion, AI-empowered education brings forth both unprecedented opportunities and a myriad of challenges. Nevertheless, AI tools cannot replace the vital role teachers play in nurturing students. When using AI in teaching, teachers must prioritise the cultivation and shaping of students' character, alongside proper values and attitudes, as their core tasks. By upholding their original aspirations and the educational goal of cultivating values and nurturing people, teachers can empower the younger generation to harness digital tools responsibly, ultimately becoming a driving force in the development of our country and Hong Kong.

### III. Application of AI in Teaching

Teachers should organically integrate AI literacy into existing curricula and learning and teaching activities in accordance with the requirements of the Hong Kong school curriculum framework, relevant subject and cross-disciplinary curriculum guides, the Blueprint, and the Learning Framework. They should set learning targets for each key stage, encompassing the development of a fundamental understanding and safety awareness of using digital technologies from the lower primary level; the exploration of ethical issues relating to using technology at the junior secondary level; and the practical use of technology alongside deepened social morality, ethics and values at the senior secondary level, enabling students to learn in a progressive and spiral approach, and gradually pursuing the value of “Technology for Good”.

The use of AI tools encompasses three major domains: learning, teaching and assessment. It helps enhance teaching effectiveness, promote personalised learning and optimise assessment. Concurrently, teachers should prioritise safeguarding data privacy and upholding ethical standards to prevent the misuse of technology, thereby fostering an efficient and safe digital learning environment. The use of AI tools across these three domains is detailed below. Given that learning, teaching and assessment are intertwined, holistic planning is essential to elevate the quality and effectiveness of classroom teaching, ultimately enriching students’ learning experiences.

#### 1. Learning

- The implementation of digital education at the primary and secondary levels should be grounded in students’ solid foundation of knowledge, rich and authentic learning experiences, and proper values. The use of AI tools should be appropriately integrated with various teaching strategies, such as group discussions and experiential activities, so as to cultivate students’ positive values and to enhance their independent thinking capabilities, especially the ability to distinguish the authenticity of information and construct knowledge, preventing them from outsourcing their thinking processes. In other words, students should take responsibility for their own thinking process and make informed selection of AI tools and the information generated.
- Learning should always remain student-centred, emphasising personalised and self-directed learning (SDL) as well as catering for learner diversity, with the aim of nurturing students into active learners capable of constructing knowledge. AI can be used to deliver tailored

learning content of varying difficulty levels to students of different abilities, or to provide text/speech conversion in Chinese and English. These functions may help students overcome learning difficulties and enhance learning effectiveness. However, it is important to note that students have different developmental needs and characteristics at different key stages. With reference to the Learning Framework, it is recommended that lower primary students only need to gain initial perception of and experience with AI technologies; they are not required to independently operate AI tools for learning. This is to prevent inappropriate use of AI tools and counter-productive effects, protect students' visual health, and ensure that they have ample opportunities for interpersonal interaction to develop their communication skills.

- AI-empowered education results in learning being no longer confined to the classroom, but extends across various online and offline platforms, rendering more flexible and diverse learning and teaching modes. For example, teaching strategies such as flipped classroom and virtual reality learning enable students to utilise AI tools to construct knowledge through active exploration, more vigorous questioning and enquiries. This cultivates critical thinking, and creativity, develops proper values, positive attitudes and reflective skills, and ultimately achieves SDL. Moreover, gamified learning can increase the enjoyment of learning and enhance students' motivation to learn.
- The online world is replete with violent, pornographic and inappropriate contents. To protect students from these negative influences, it is more appropriate for primary students to first cultivate good Internet habits and develop AI literacy under teachers' guidance or parental accompaniment. This foundation enables them to discern the authenticity and appropriateness of information before SDL elements are gradually strengthened. Secondary students should progressively master the use of AI tools for SDL through tasks ranging from lesson preparation to self-directed exploration and peer learning, thereby honing their generic skills, including critical thinking, self-management, collaboration and communication.
- Students should learn to select appropriate AI tools for learning (such as commercially available AI tools authorised by copyright owners, and using subject-related AI assistants), respect intellectual property rights (e.g. by properly citing references), and progressively develop their AI literacy and strengthen their awareness of human-AI collaboration. Meanwhile, they should avoid an over-reliance on AI tools to prevent undermining their learning motivation and other generic skills (such as interpersonal communication skills).

- When harnessed effectively, AI can serve as a personal tutor for students; however, it can also swiftly complete assignments on their behalf. Therefore, assignments and assessment tasks should avoid requiring or permitting students to directly submit AI-generated content or final products. Instead, AI applications should only be permitted as one of the information sources or as a tool to stimulate thinking. Students should understand that they are accountable for any work they submit.
- Teachers should observe whether students are inappropriately using AI tools to replace their own efforts in completing learning tasks. They should address any such issues promptly, foster AI literacy and guide students in developing the awareness/habit of verifying AI-generated content across multiple sources. Furthermore, teachers should be mindful of whether students exhibit negative emotions following an increased use of AI in their learning, such as social media anxiety, school aversion and lethargy. They must also remain vigilant regarding improper behaviours (e.g. disclosing or sharing other people’s personal information without obtaining prior consent, copyright infringement, breach of academic integrity or cyberbullying peers using deepfake technology). When necessary, teachers should consult and collaborate with professional guidance personnel, both within or outside the school, as well as parents, to provide appropriate and timely support. Should a serious case occur, it should be deliberated with the school management and handled in compliance with school mechanisms.

## 2. Teaching

- When using AI in teaching, teachers should have clear learning and teaching objectives to cultivate proper values and attitudes in students, nurturing them with proper moral values.
- Teachers should utilise AI teaching tools to analyse learning data and understand students’ learning progress, enabling the design of personalised learning portfolios based on students’ individual interests, abilities and pace.
- By breaking through the time and space constraints of conventional teaching modes, teachers can use technology more flexibly to promote pedagogical innovation and optimise teaching design and strategies. This includes creating lesson plans, refining teaching content, assigning coursework or extending learning, and automatically generating stratified curriculum resources based on difficulty levels. Furthermore, designing engaging, age-appropriate cross-subject learning activities and even games can enhance classroom participation and learning effectiveness.

- AI generated and cross-disciplinary curriculum resources can be updated in a timely manner to keep abreast of current affairs.
- AI tools can relieve teachers of repetitive tasks and data updating work, reducing their workload and enhancing their capacity. This frees up more time for deeper engagement with students, thereby realising more efficient, personalised and caring teacher-student interactions. However, AI-generated content must be vetted with professionalism and prudence to ensure its accuracy and appropriateness to safeguard students' well-being.
- Teachers should guide students in the proper use of AI tools (e.g. comparing their personal creation with AI-generated content and vetting the output to ensure accuracy and appropriateness; designing interactive simulated scenarios to provide students with personal experience in upholding principles such as abiding by the law and respecting others in online social contexts; or utilising gamified learning to help students understand the importance of integrity). Concurrently, students should be guided to maintain a critical thinking attitude and an awareness of protecting personal data and respecting privacy. Should instances of misuse, such as plagiarism, cheating, cyberbullying involving deepfake technology or doxxing, be identified, teachers must immediately point out the wrongdoing and handle the matter appropriately in accordance with school regulations. They should also take the opportunity to explore with students the proper use of AI, alongside related ethical and legal issues, in a timely manner.

### 3. Assessment

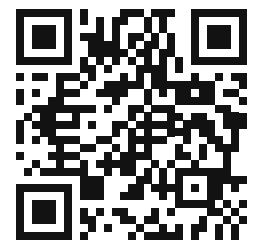
- AI technologies enable “assessment” to go beyond the mere evaluation of students' learning outcomes (i.e. Assessment of Learning). They allow for a greater emphasis on data analysis throughout the learning process, thereby facilitating “Assessment for Learning” and “Assessment as Learning”. Consequently, assessment methods are shifting from traditional, relatively one-dimensional testing and examination modes towards a diverse, multi-perspective and more authentic approach. This includes real-time, formative and summative assessments, covering multiple dimensions such as knowledge acquisition, skills development (including higher-order thinking) and moral conduct.
- AI can swiftly, or even in real time, analyse student learning data, including qualitative and quantitative assessment data and information (e.g. students' assignments, teachers' observations, tests and exams). By consolidating feedback from teachers, student peers and AI tools, AI can assist teachers in understanding students' strengths, weaknesses and learning

difficulties from multiple angles, and in providing constructive and formative feedback to students in a timely manner. This enables students to reflect on their learning process and identify personal strengths and areas for improvement, thereby adjusting their learning strategies and formulating future learning goals. Consequently, they can progressively acquire subject-specific knowledge and skills, and develop critical thinking skills and SDL capabilities. By appropriately utilising AI, teachers can offer instant feedback, adapt their teaching strategies and pace, and provide students with personalised learning resources, thereby enhancing learning outcomes. Under no circumstances should teachers directly adopt AI-generated grading and feedback without first exercising their professional judgement.

- Teachers should carefully consider whether it is necessary to set restrictions or develop guidelines regarding the use of AI in assignments or assessments. For instance, for topics designed to foster students' creativity and appreciation skills (such as learning elements related to music, visual arts, literature, and STEAM education), teachers should thoughtfully evaluate whether it is appropriate for students to use AI tools to complete assignments, or they may establish new assessment criteria as needed.
- Teachers should consistently caution students against having AI complete assignments on their behalf, as improper use can undermine their thinking, expressive and self-learning abilities, and even their motivation to learn. Students should not directly submit AI-generated assignments as their own work. Teachers should first establish guidelines for AI use and assessment criteria with their students, and then employ various means to verify whether there is any misuse of AI or academic dishonesty in students' work. These methods include conducting oral enquiry in class and requiring students to submit reflective journals to present their thinking process. Certain assignments (such as writing tasks) may only be suitable for completion in class under teacher supervision.
- Due consideration should be given to the socio-economic backgrounds of students when determining the arrangement and types of assignments. For example, teachers should be mindful of whether assignments requiring students to use AI tools at home (especially those involving advanced paid features), or heavily weighted assignments completed at home (such as project learning), might lead to unfair assessments due to disparities in family guidance and support.

- AI can swiftly compile information gathered from the Internet through large language model (LLM) platforms; however, the generated answers are not necessarily correct. AI models can manifest “hallucinations”, generating content that appears plausible but is factually incorrect. Moreover, if AI training data contain biases, the generated outputs may also be biased. As such, students must cross-check information from multiple sources or optimise their queries by refining their prompts so as to use information generated by AI tools in an ethical and responsible manner. Teachers should lead by example, guiding students to understand the limitations of AI and teaching them to use AI for learning ethically and with integrity. In the AI era, primary and secondary schools, as providers of basic education, should focus on cultivating students’ essential AI literacy, which is even more important than mere technical application skills.
- AI technologies can automate assignment marking or the generation of student learning reports, providing timely feedback on learning outcomes. This helps teachers understand students’ progress more efficiently, adjust teaching strategies, and guide students in improving their study methods, thereby realising diversified and personalised assessments, and comprehensively enhancing the precision and effectiveness of teaching. If teachers need to upload student assignments to an AI platform for marking, they should first carefully remove any personally identifiable information to ensure strict compliance with the Personal Data (Privacy) Ordinance.

Examples of using AI technologies in the learning, teaching and assessment of subjects within the Key Learning Areas are available on the EDB website (<https://www.edb.gov.hk/en/DEBP>). We will update these examples in a timely manner as needed.



## IV. Conclusion

Given the rapid advancement of AI and other innovative technologies, the contexts in which these technologies are used in primary and secondary education will continue to expand. Therefore, the Guide may not exhaustively cover all possibilities and will be continuously optimised as needed.

## V. Acknowledgement

We would like to express our gratitude for the valuable advice and support provided by the primary and secondary school councils, associations of heads of primary and secondary schools, and various stakeholders to this Guide.

