REQUEST FOR PROPOSALS

FOR DEVELOPMENT AND IMPLEMENTATION OF

ENRICHED IT CLASS PROGRAMME IN SECONDARY SCHOOLS

ISSUED BY

Office of the Government Chief Information Officer
The Government of the Hong Kong Special Administrative Region

February 2015

I. REQUEST FOR PROPOSALS (RFP)

PURPOSE

The Government of the Hong Kong Special Administrative Region, represented by the Office of the Government Chief Information Officer (OGCIO), requests for proposals to develop and implement enriched IT class programme in secondary schools to provide intensive IT enrichment training to Secondary 2 to Secondary 6 students with an aim to identify and cultivate young IT talents early to meet the development needs of a digital society.

2. OGCIO invites all government, aided and caput secondary schools, and local secondary schools under the Direct Subsidy Scheme (DSS) adopting local curriculum to submit proposals to develop and implement enriched IT class programme in secondary schools (the Programme). An evaluation panel comprising representatives from OGCIO, Education Bureau (EDB) and Curriculum Development Council (CDC) will evaluate proposals received and select not more than eight applicant schools that best meet the requirements of the Programme and the criteria for selection as partner schools.

BACKGROUND

3. Embedded in practically all economic sectors, IT is a major driving force for continuous social and economic developments, underpinning innovation, competitiveness and long-term prosperity. With increasing development of IT in almost all spheres of economic activity, we can expect an increase in the demand for IT talents in all respects: as programmers, system analysts and designers, IT architects and engineers, IT security specialists and auditors, innovators and technopreneurs, to unleash IT power for society.

4. Schools are the best ground to scout and develop IT talents. Early exposure in IT coupled with intensive training on logical thinking and creative problem solving in students' formative years is conducive to nurturing their computational thinking ability to innovate at a young age. In recent years, many cities are making IT studies a rigorous academic discipline in the secondary school curriculum, and some advanced economies have set up special secondary schools or academies to groom IT talents through collaboration with the IT industry and tertiary institutions.

5. In Hong Kong, Computer Literacy (CL) is a subject in the junior secondary curriculum to develop students' computer literacy with an understanding of fundamental concepts of computers. For senior secondary, Information and Communication Technology (ICT) is an elective subject of the Hong Kong Diploma of Secondary Education (HKDSE). In 2014, about 7 400 candidates (9.4% of total) took ICT in the HKDSE Examination. In comparison, there were significantly more candidates taking other science subjects such as Physics (18.2%), Chemistry (21.4%) and Biology (22.5%). Among the many competing academic and career disciplines, students with IT talents may forego the opportunities or possibilities to pursue IT in senior secondary and in tertiary education.

6. Early exposure and interest nurturing through interesting and practical IT training is a method to sustain students' continuing interest in IT. Through participating in project-based learning activities and competitions, students can appreciate the creative nature and versatility of computing in everyday lives. There are many examples of renowned IT talents around the world who were inspired at a young age and soon became leading figures in the IT sector. To identify such gifted young people earlier, the Financial Secretary announced in the 2014-15 Budget[1] that we plan to incorporate IT enrichment programmes in secondary schools which are outstanding in IT education. By so doing, we hope to cultivate young IT professionals and even entrepreneurs to meet the development needs of a digital society.

[1] Funding for the Enriched IT Programme has been included for consideration by the Legislative Council in the context of the Appropriation Bill 2015.

II. ENRICHED IT PROGRAMME IN SECONDARY SCHOOLS

7. The Government Chief Information Officer, with the support of the Secretary for Commerce and Economic Development and the Secretary for Education, proposes to implement, on a pilot basis, a two-pronged Enriched IT Programme in secondary schools to be launched in the 2015/16 school year for eight years until 2022/23. The Enriched IT Programme comprises two elements —

(a) **Enriched IT Class Programme** - enriched IT classes (IT Class) to be run by up to eight selected secondary schools (partner schools) to provide intensive IT training to students who are interested and talented in IT; and

(b) **Enriched IT Activities Programme**[2] - enriched IT activities to be organised by secondary schools to foster a pro-IT atmosphere and stimulate interest in IT in the school community.

8. The two-pronged Enriched IT Programme in secondary schools is a collaborative effort of secondary schools to work with tertiary institutions and industry to cultivate IT talents early in secondary studies.

ENRICHED IT CLASS PROGRAMME

Objectives

9. The Government will select up to eight partner schools which will set aside one class of normal size in each level/form from Secondary 2 to Secondary 6 for intensive IT training. While IT Class students will study the school curriculum alongside their peers in other classes, they will devote on average three extra class hours a week to attend a more structured and enriched IT curriculum, seasoned with professional exposures and project-based learning activities to develop their computational thinking, problem-solving ability, creativity and innovative talents.

10. Having gone through structured and focused training and with hands-on experience at an early age, the potential of IT Class students would be better realised and it is more likely that they would have a continuing interest in the subject as they pursue further studies or embark on their careers. They would be proficient in computational thinking and capable of using such ability to innovate at a young age, which would enable them to move further and faster with higher achievements in their studies and careers.

[2] Invitation for participation in Enriched IT Activities Programme will be addressed in a separate RFP exercise.

Guiding Principles

11. A Steering Committee was set up in August 2014 to advise, co-ordinate and monitor the implementation of Enriched IT Programme in secondary schools. The terms of reference and composition of the Steering Committee can be found at **Annex A**.

12. The Steering Committee has set out the guiding principles which underpin the creativity and collaboration of secondary schools, tertiary institutions and industry for running the Enriched IT Class Programme –

(a) The IT Class should aim at developing students' passion, interest and curiosity in IT, creativity and innovative talents, computational thinking and problem-solving ability through self-directed learning and exploration in IT domains and project-based learning activities. Vocational and IT skill training would not be the main focus of the Enriched IT Class.

(b) The IT Class should target at students who are interested and talented in IT. Partner schools should be responsible for identifying and recruiting students with potential and aptitude irrespective of their academic performance. Partner schools should have the flexibility and support measures to allow students to join and exit from IT classes.

(c) The Steering Committee has formulated the curriculum framework for the IT Class, which aimed at guiding the secondary schools in creating and providing an environment and modes of learning conducive to unleash IT Class students' talents and potential.

(d) With reference to the above, partner schools will be given the flexibility to develop customised school-based IT enrichment curriculum with modes and styles of learning most appropriate to their IT Class students. Each IT Class student should commit at least 96 class hours every school year on a diversified menu of IT learning activities.

(e) The Steering Committee will work with partner schools to enlist support and commitment from relevant organisations to run IT Class, such as to identify and develop collaborative opportunities with tertiary institutions, industry and business organisations for collaborative teaching and mentoring, industrial visits and exposure, competitions and exhibitions, work practicums, etc.

III. OBLIGATIONS AND REQUIREMENTS

OBLIGATIONS OF PARTNER SCHOOLS

13. Partner schools should be fully responsible and accountable in planning, administrating and implementing IT Class to meet the objectives of the Programme.

14. Partner schools are obliged to undertake the following responsibilities —

(a) To design and develop school-based IT enrichment curriculum and teaching modules for IT Class from Secondary 2 to Secondary 6 with reference to the guiding principles and curriculum framework as defined by the Steering Committee.

(b) To administer IT Class including student recruitment and support services.

(c) To provide intensive IT training to IT Class students according to the school-based IT enrichment curriculum endorsed by the Steering Committee.

(d) To organise at least three IT activities (IT Activities) related to IT Class training every year for students from other schools to take part.

(e) To share experience and deliverables of IT Class and IT Activities among the school community and interested stakeholders.

(f) To participate in promotion and publicity activities of the Programme.

(g) To manage, monitor and review implementation of IT Class including resource utilisation and performance outcomes against key performance indicators endorsed by the Steering Committee.

(h) To participate in the term review in 2017-18 and programme review in 2020-21 on the Enriched IT Programme.

REQUIREMENTS ON PARTNER SCHOOLS

15. The Government has the following requirements and expectations on partner schools in running the Enriched IT Class Programme.

School's Vision and Support

16. Partner schools should articulate their schools' vision and objectives with the objectives of the Programme, set desired outcomes with measurable and credible key performance indicators (KPIs), and establish effective governance and management mechanism for running the Programme in their secondary schools. In particular, partner schools should commit to create and provide a seedbed environment to nurture creativity, innovative and self-directed learning abilities with modes and styles of learning most appropriate to their IT Class students.

17. Partner schools should obtain support of their School Management Committees (SMCs)/Incorporated Management Committees (IMCs) and Parent-Teacher Associations (PTAs).

18. Partner schools should submit their Vision and Objectives Statement to the Steering Committee, which should include the vision and objectives, approaches, measures and plan to run IT Class in the schools. In particular, to elaborate on the salient features and actions in creating a learning and teaching environment beyond the scope of current school curriculum and to meet the objectives of the Programme.

Size of Operation

19. Partner schools should start running IT Class from Secondary 2 from 2015/16 school year. Partner schools which have the capacity and whose students have the abilities to cope with a more advanced and enriched IT curriculum at HKDSE years could propose to start running Secondary 4 IT Class in tandem with Secondary 2 IT Class in 2015/16 school year.

20. Each IT Class should be maintained with at least 30 students for Secondary 2 and Secondary 3 (junior secondary) and with at least 25 students for Secondary 4 to Secondary 6 (senior secondary).

21. Partner schools should commit to run IT Class for eight school years from 2015/16 to 2022/23 according to the tables below —

For Partner School Running IT Class from Secondary 2 in 2015/16 School Year

School Year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
No. of Class	1	2	3	4	4	3	2	1
Level/Form	S2	S2	S2	S2				
		S3	S3	S3	S3			
			S4	S4	S4	S4		
				S5	S5	S5	S5	
					S6	S6	S6	S6

Total Number of IT Class = 20

For Partner School Running IT Class from Secondary 2 and Secondary 4 in 2015/16 School Year

School Year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
No of Class	2	4	5	5	4	3	2	1
Level/Form	S2	S2	S2	S2				
		S3	S3	S3	S3			
			S4	S4	S4	S4		
				S5	S5	S5	S5	
					S6	S6	S6	S6
	S4	S4						
		S5	S5					
			S6	S6				

Total Number of IT Class = 26

Learning Class Hours

22. Whereas IT Class students will study the school curriculum alongside their peers in other classes, they should commit on average three class hours a week outside normal school hour and a total of at least 96 class hours each year (Note: Secondary 6 IT Class students should commit a total of at least 48 hours plus two-week work practicum) for intensive training under the school-based IT enrichment curriculum.

Curriculum Framework of IT Class

23. With reference to the guiding principles, the Steering Committee has developed the curriculum framework for IT Class. The curriculum framework is outlined in the table below —

	1st Term	2nd Term
S2	S2(1) - Creative Thinking	S2(3) - Digital Games
	S2(2) - Mobile Apps	Elective Module (designed by partner schools)
S3	S3(1) - Problem Solving & Programming	S3(3) - 3D Modeling & Augmented Reality
	S3(2) - Robotics & Sensors	Elective Module (designed by partner schools)
S4	S4(1) - Software Development & Technology Appreciation 1	
	S4 Project (designed by partner schools)	
S5	S5(1) - Software Development & Technology Appreciation 2	
	S5 Project (designed by partner schools)	
S6	S6(1) - Communication & Collaboration	Work Practicum (2 weeks duration)

Notation:

- : Core modules
- : Elective modules
- : Project modules
- : Work practicum

Junior Secondary (S2 – S3) IT Class

24. The learning objectives of junior secondary IT Class are to develop students' interest, curiosity and aptitude in IT, and capability and capacity in problem solving, logical reasoning and abstraction, innovation and creativity.

25. Students should take part in programming projects and application development to practise coding, fundamental logic, abstraction and problem solving skills, as well as industrial visits to enterprises with excellent application of IT to broaden their horizon.

26. Junior secondary students should take six core modules and two elective modules of 24 class hours each module from the school-based IT enrichment curriculum.

(a) The six core modules should cover topics on 'creative thinking' and 'problem solving & programming' so as to develop students' ability in creativity and computer science fundamentals, as well as pervasive IT topics including developing and making 'mobile apps', 'digital games', 'robotics & sensors' and '3D modeling & augmented reality'.

(b) The two elective modules to be designed by partner schools could be extension of core modules or teaching modules on new topics conducive to achieving the objectives of IT Class.

Senior Secondary (S4 – S6) IT Class

27. The learning objectives of senior secondary IT Class are to develop their higher order thinking, logical reasoning and abstraction, problem solving skills, creativity and competencies in integrating technological know-hows with business requirements.

28. Students should be given a diversified and personalised menu of learning activities such as —

(a) Hands-on and project-based learning in software design, visual and digital design, application development, embedded system and infrastructure design, applications of IT, business intelligence and data analytics, etc., to develop authentic problem-solving abilities;

(b) Participation in major local and international IT and robotic competitions (such as the Asia Pacific ICT Alliance Awards (APICTA), the International Olympiad in Informatics (IOI), the IT Challenge, the Infomatrix and the FIRST Robotics Competition, etc.) to stretch their creative and innovation talents and to develop their leadership and communication skills; and

(c) Work practicum opportunities tailored around students' interests.

29. Secondary 4 and Secondary 5 students should take two core modules on 'software development & technology appreciation' so as to understand the principles of software analysis, design and implementation and to appreciate the latest cutting edge IT technologies and applications.

30. Secondary 4 project module and Secondary 5 project module are the crucial component for senior secondary students to develop their abilities in self-directed learning and exploration in IT domains. Partner schools should design and provide at least two project briefs each for S4 project module and S5 project module on selected themes or domains. Students are expected to work in group to learn and apply IT knowledge of the selected domain to solve real-life problems. Partner schools should facilitate students to participate in IT related competitions and exhibitions to stretch their creative and innovation talents and to develop their leadership and communication skills.

31. In Secondary 6, students will take 'communication & collaboration' module to consolidate their skills in communication and presentation, collaboration and social development. Partner schools should work with tertiary institutions and industry to provide work practicums for S6 students for about two weeks preferably related to their S4 and S5 projects.

Customised School-based IT Enrichment Curriculum and Teaching Modules

32. Partner schools should develop customised school-based IT enrichment curriculum and teaching plan for each module for IT Class from Secondary 2 to Secondary 6 with reference to the curriculum framework. In particular, partner schools should create a seedbed environment to nurture creativity, innovative and self-directed learning abilities with modes and styles of learning most appropriate to their IT Class students.

33. The Steering Committee has developed the objectives, expected learning outcomes and indicative syllabus for each core module. Partner schools could enhance the objectives, expected learning outcomes and indicative syllabus of the core modules.

34. Partner schools should submit their customised school-based IT enrichment curriculum, module teaching plans and teaching schedules for the coming school year to the Steering Committee in June every year for endorsement. Each module teaching plan should include objectives, learning outcomes, syllabus, teaching/learning methods and supporting activities, tools and materials, teaching/learning hours, teaching staff resources and teaching schedule.

IT Activities for Other Students

35. To benefit students beyond IT Class, partner schools should organise at least three IT activities related to IT Class training (such as short courses, seminars, programming workshops, etc.) for students from other schools to take part each year.

36. Each IT activity should have at least 30 students of which one-third should come from other schools.

37. Partner schools should submit IT activity plan to the Steering Committee in June every year for endorsement. The plan should include, among others, nature of IT activity and its relevance to IT Class modules, number of expected participants, promotion and outreach arrangements, and measures to facilitate students from other schools to participate in the activities.

Management and Teaching Team

38. Partner schools should have a robust management and teaching team with IT teachers with subject expertise to design and develop customised school-based IT enrichment curriculum and teaching modules for IT Class from Secondary 2 to Secondary 6 as mentioned above.

39. IT teachers with subject expertise should take charge of the IT Class and serve as mentors for IT Class students. The teaching team should be responsible for delivering at least 50% of the school-based IT enrichment curriculum (excluding the 'work practicum' module for Secondary 6).

40. The team should work with the Steering Committee to enlist support and commitment from relevant organisations to run IT Class, such as to identify and develop collaborative opportunities with tertiary institutions, industry and business organisations for collaborative teaching and mentoring, competitions and exhibitions, work practicums, industrial visits and exposure, etc.

41. Partner schools should share experience and deliverables of IT Class and IT Activities among the school community and interested stakeholders, as well as participate in promotion and publicity activities of the Programme.

Student and Class Administration Support

42. The IT Class should target at students who are interested and talented in IT. Partner schools should be responsible for identifying and recruiting students with potential and aptitude irrespective of their academic performance.

43. Partner schools should develop and implement effective, open and equitable recruitment process to identify, scout and develop students for IT Class. Measures should be developed to facilitate talented students from other schools to enroll in IT Class. While having the flexibility to allow students to join and exit from IT classes, partner schools should develop effective promotion and recruitment plan to maintain the class size in each level, and support measures for students joining IT Class at a later stage.

44. Partner schools should develop IT class administration guide which should include procedures to administer admission, attendance, progress and achievements of IT Class students, as well as support measures to facilitate students to attend IT Class and to participate in IT Activities outside normal school hours.

Key Performance Indicators

45. Partner schools should develop measures to assess effectiveness and efficiency in running IT Class. They should set key performance indicators (KPIs) on student admission, attendance, dropout, progression, achievements and parent satisfaction. In particular, the student attendance rate should not be less than 80 percent.

46. Partner schools should develop measurement methods and means to collect performance data such as conducting parent and student satisfaction surveys every year. Partner schools should conduct longitudinal tracking of students' progression and outcomes, and maintain relevant student records for ten years in order to assess the overall effectiveness of the programme. Tracking information should cover IT related academic results, professional certifications acquired, participation and awards in major IT related competitions/exhibitions, work practicum opportunities attained, admission statistics to tertiary institutions and choice of careers after graduation.

Resources, Facilities and Services

47. With reference to school-based IT enrichment curriculum and IT activity plan, partner schools should articulate a pragmatic approach and plan for injection of necessary resources to support the operation of IT Class and IT Activities.

48. Partner schools should submit resource plan to the Steering Committee in June every year for endorsement. The plan should include, among others, additional resources required for teaching and administration, as well as additional IT facilities and IT teaching software, materials and equipment.

Governance

49. The school supervisor of partner schools should be fully accountable for the execution, financial control and performance of the Programme.

50. The school supervisor should appoint a Person-in-charge who is responsible for the planning, administration and implementation of IT Class, and to collaborate with the Steering Committee, academia, industry and business organisations throughout the Programme. The Person-in-charge is required to report progress and any issues that require the attention of Steering Committee.

51. Partner schools should receive government representatives and members of the Steering Committee to visit their schools and demonstrate how they operate the IT Class.

52. Partner schools should submit the following planning and implementation documents to the Steering Committee in June every year for endorsement —

(a) School-based IT enrichment curriculum

(b) Teaching plan for each module

(c) IT activity plan

(d) Resource plan

(e) Promotion and recruitment plan

(f) IT class administration guide

53. If there are unexpected conditions or major incidents adversely affecting the implementation of IT Class, partner schools should report the issues with recommendations to resolve the issues to the Steering Committee as soon as possible and not later than the next scheduled Steering Committee meeting.

54. To cater for unexpected changes in circumstances, covering for instance a drop in the resources of the IT teaching team, supports and commitments of the partner schools, or failure to deliver their commitments to organise IT activities, etc., the Steering Committee would work with partner schools and stakeholders on improvement measures such as intensive coaching to the schools and/or fallback options. Partner schools should adopt the recommendations and advices of the Steering Committee.

Performance Monitoring and Review

55. Partner schools should continuously monitor their performance and report progress to the Steering Committee regularly throughout the school years according to the above planning and implementation documents. In particular, partner schools should submit annual performance report to the Steering Committee at the end of each school year. The annual performance report should include the followings —

(a) IT Class students' progression and achievements.

(b) Assessment on the effectiveness of IT Class and IT Activities, including performance against KPIs.

(c) Audited financial statements for the audited accounts.

(d) Recommendations for improvements.

Programme Deliverables

56. In summary, partner schools should deliver, among other things, the followings, for eight school years from 2015/16 to 2022/23 —

(a) **Vision and Objectives Statement**, which should include the vision and objectives, approaches, measures and plan to create a seedbed environment to nurture creativity, innovative and self-directed learning abilities of IT Class students in meeting the overall objectives of the Programme. In particular, to elaborate on the salient features and actions in creating a learning and teaching environment beyond the scope of current school curriculum.

(b) **Customised school-based IT enrichment curriculum** for IT Class from Secondary 2 to Secondary 6 with reference to the curriculum framework, which should feature a diverse menu of activity-based teaching modules and project-based activities in addition to classroom coaching and self-directed learning.

(c) **Annual module teaching plan and teaching schedule** for each module which should include objectives, learning outcomes, syllabus, teaching/learning methods and supporting activities, tools and materials, teaching/learning hours, teaching staff resources and teaching schedule.

(d) **Annual IT activity plan** of at least three activities for students from other schools, which should cover nature of IT activity and its relevance to IT Class modules, number of expected participants, promotion and outreach arrangements, and measures to facilitate students from other schools to participate in the activities.

(e) With reference to school-based IT enrichment curriculum and IT activity plan, **annual resource plan**, which should include, among others, additional resources required for teaching and administration, as well as additional IT facilities and IT teaching software, materials and equipment.

(f) **Annual promotion and recruitment plan**, which should include measures to identify and scout talent students for IT Class and to facilitate students from other schools to enroll in IT Class and IT Activities.

(g) **IT class administration guide**, which should include procedures to administer admission, attendance, progress and achievements of IT class students, and measures to facilitate students to attend IT Class and to participate in IT Activities.

(h) **Sharing of experience and deliverables** of IT Class and IT Activities which should include teaching materials, promotion and publicity materials, among the school community and interested stakeholders.

(i) **Annual performance report**, which should include assessment of performance over KPIs, audited financial statements and recommendations for improvements.

(j) Participating in promotion and publicity activities, as well as the **term review and programme review** of the Enriched IT Programme.

(k) All **functions, activities and services** in accordance with the planning and implementation documents to operate IT Class and IT Activities.

Funding Arrangement and Administration

Class Grant

57. Annual provision of "Class Grant for Enriched IT Class Programme" will be released to partner schools in September each year based on the number of IT classes to be run in the school year ($250,000 per class). The amount of class grant to be disbursed to each partner school from 2015/16 to 2022/23 school year is shown below —

For Partner School Running IT Class from Secondary 2 in 2015/16 School Year

School Year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
No. of Class	1	2	3	4	4	3	2	1
Class Grant ($'000)	250	500	750	1,000	1,000	750	500	250

Total Amount of Class Grant = $5 million

For Partner School Running IT Class from Secondary 2 and Secondary 4 in 2015/16 School Year

School Year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
No. of Class	2	4	5	5	4	3	2	1
Class Grant ($'000)	500	1,000	1,250	1,250	1,000	750	500	250

Total Amount of Class Grant = $6.5 million

58. Partner schools can deploy the annual class grant flexibly in the following areas in running IT Class and IT Activities —

(a) Engagement of teaching personnel and/or teaching service, such as from tertiary institutions, industry corporations, and teaching service providers;

(b) Engagement of administrative / technical support personnel and/or services;

(c) Consumables for organisation of IT Activities;

(d) Promotion of IT Class and IT Activities including recruitment of IT Class students;

(e) Subsidising registration fees, travelling expenses and accommodation expenses of IT Class students in participating IT and Informatics competitions and/or exhibitions; and

(f) Subsidising examination fees of students in acquiring industry recognised certificates.

59. Partner schools may retain surplus balance up to 12 months' provision of the annual class grant. Excessive surplus will be clawed back each year based on audited accounts submitted to the EDB by the schools. Any remaining unspent balance will be clawed back according to schools' audited accounts for the year ended 31 August 2023.

One-off Grant for Facility and Materials

60. A maximum provision of $1 million for acquiring and maintaining IT facilities and IT teaching software/materials/equipment for supporting IT Class and IT Activities will be released to each partner school in accordance with the annual resource plan endorsed by the Steering Committee. Any unspent balance will be clawed back according to school's audited accounts for the year ended 31 August 2023.

Accounting and Monitoring Arrangement

61. Partner schools should not assume that any Government funding support will be available prior to formal funding approval. Partner schools shall be responsible for ensuring that all Government funding allocated to them for the purpose of the Programme is solely and exclusively used for the approved purpose only. Partner schools shall be fully accountable for the use and management of the public money for the Programme and the performance of the Programme. Deficit, if any, should be borne by schools' own funds.

62. Partner schools should create and keep two separate ledger accounts entitled "Class Grant for Enriched IT Class Programme" and "One-off Grant for IT Facility and Materials for Enriched IT Class Programme" to record all the income and expenditure chargeable to the Programme. Partner schools should ensure that all receipts and payments in respect of the Programme are properly and timely recorded.

63. Partner schools should include auditing of all incomes and expenditures chargeable to the Programme under the two specific ledgers in the annual audit exercise as specified in the School Administration Guide. Copies of audited financial statement related to the two ledgers should be included in the annual performance report submitted to the Steering Committee for acceptance at the end of each school year.

64. Partner schools should adhere to the related principles of handling schools' finance matters and follow proper procedures for procurement, accounting and financial control as specified from time to time by the EDB.

65. For procurement of stores and services —

For Aided, Caput and DSS Schools

(a) Partner schools are required to follow proper procurement, accounting and financial control procedures as set out in the EDB Circular No. 4/2013 dated 30 April 2013, the School Administration Guide and other relevant guidelines. As a guiding principle, the use of government funds should comply with the Education Ordinance, the Education Regulations, other relevant legislation and such other requirements as specified from time to time by the EDB. All purchases related to the Programme should be recorded for proper inventory control as appropriate.

For Government Schools

(b) Partner schools are required to follow proper tendering and purchasing procedures as set out in the EDB Internal Circular No. 3/2013, 4/2013, the Stores and Procurement Regulations and any other related guidelines. In addition, partner schools are required to record the procured items in the Inventory Record(s) as appropriate.

66. If partner schools intend to hire outside services, they have to abide by relevant rules and statutory requirements. Payments relating to employment of staff like salary, contribution to MPF, gratuity, long service payment, severance pay and any statutory benefits conferred by the Employment Ordinance are all included in the grant. Guidance on hiring outside services and staff appointment is as follows —

For Aided, Caput and DSS Schools

(a) Aided schools should observe EDB Circular No. 4/2013 dated 30 April 2013 on Procurement Procedures in Aided Schools and EDB Circular No. 5/2005 dated 16 June 2005 on Appointment of Staff in Schools, which lists out points to note in handling appointment matters.

(b) To avoid conflict of interests relating to the procurement of services and the appointment of staff, Caput schools and schools under the DSS should observe, where appropriate, the procedures and points to note as contained in the said circulars.

(c) Aided, Caput and DSS schools are also reminded that they should comply with, where appropriate, relevant statutory requirements such as the Education Ordinance, the Employment Ordinance and the Mandatory Provident Fund Schemes Ordinance.

For Government Schools

(d) Government schools should comply with the relevant rules and regulations relating to hire of services and appointment of temporary staff so as to ensure that the principles of openness and fairness be upheld.

(e) They should also note the statutory duties of the EDB as an employer under the Mandatory Provident Fund Schemes Ordinance (Cap 485), and should follow the Bureau's procedures for enrollment of relevant employees into a Mandatory Provident Fund Scheme.

67. In response to The Hong Kong Police Force's setting up the Implementation of the Sexual Conviction Records Check Scheme, partner schools should consider adopting the Scheme in the appointment procedures in order to further safeguard the well-being of students. For details, please refer to EDB Circular Memorandum No. 179/2011 dated 29 November 2011.

Implementation Schedule

68. Partner schools must commence IT Class in September 2015. The following table highlights the major milestones —

Major Milestones	Tentative Timeframe
A. Evaluation and selection of proposals	April to May 2015
B. Endorsement of planning and implementation documents including school-based IT enrichment curriculum, teaching plans, IT activity plan, resource plan, promotion and recruitment plan etc.	June 2015
C. Enrollment of first cohort of IT Class students	August 2015
D. Commencement of IT Class	September 2015

IV. EVALUATION PROCESS & SELECTION CRITERIA

69. An evaluation panel comprising representatives from OGCIO, EDB and CDC will evaluate proposals received and select not more than eight applicant schools that best meet the objectives of Enriched IT Class Programme and the selection criteria.

70. The evaluation panel may request the applicant school to supply further information to clarify or substantiate the proposal during the evaluation process. The applicant school shall respond or submit the required information within the period specified; otherwise the proposal may not be further considered.

71. Only proposals received which fulfill all the mandatory requirements as described in **Table 1 – Mandatory Requirements** below will be evaluated. Applicant schools are required to provide **ALL** the required information as described in the Schedules of **Annex B**.

Table 1 – Mandatory Requirements

Mandatory Requirements	Submission
(a) School Supervisor of the applicant school has vetted the information provided in the schedules and committed to undertake the full responsibilities as required for a partner school as stipulated under *Section III – Obligations and Requirements* in this RFP document.	Schedule 1
(b) The applicant school is a valid government, aided, caput secondary school, or local secondary school under the Direct Subsidy Scheme registered under EDB with an EDB assigned school code, and is adopting local curriculum.	Schedule 2
(c) The applicant school has students taking HKDSE ICT subject.	Schedule 2

72. For proposals meeting all mandatory requirements as described in **Table 1 – Mandatory Requirement** above, the evaluation panel will evaluate both the capability of the applicant school and its proposal submitted based on the criteria as described in **Table 2 – Evaluation Criteria** below with the corresponding weighting**.**

Table 2 – Evaluation Criteria

Evaluation Criteria	Weighting	Submission
<u>Assessment on Proposal (70%) / Passing Score (35%)</u> **What and How the Applicant School will Do** **to Create a Seedbed Environment to Nurture IT Class Students**		
a. School's vision, objectives and commitment to create a seedbed environment to nurture creativity, innovative and self-directed learning abilities of students in meeting the overall objectives of the Programme Merits will be given to proposals which fully articulate their vision, objectives, approaches, expected outcomes and key performance indicators in running IT Class to meet the Programme objectives. Merits will be given to proposals which set out strong governance and management structure to achieve the expected outcomes.	15%	<u>Schedule 3 - Vision, Plan and Commitment from School</u> • Vision and objectives of running Enriched IT Class Programme • Proposed approaches, expected outcomes and key performance indicators • Proposed governance and management mechanism • Support from School Management Committee / Incorporated Management Committee, Parent-Teacher Association, etc.

Evaluation Criteria	Weighting	Submission
b. Proposed customised school-based IT enrichment curriculum, module teaching plans and project briefs	**30%**	
For the nine core teaching modules, merits will be given if the proposals can articulate a diverse menu of teaching/learning methods with elaboration on specific examples for individual teaching units of the given syllabus, and experience of prospective teacher or training provider in delivering similar training.		<u>Schedule 4A – Module Teaching Plans (Core Modules)</u> • Teaching/learning methods • Supporting activities, tools and materials • Teaching staff resources • Teaching/learning hours
For the two elective teaching modules, merits will be given if the proposals can articulate the alignment of the modules with the Programme objectives and school's vision, and the proposals can articulate a diverse menu of teaching/learning methods with elaboration on specific examples for individual teaching units of the proposed syllabus, and experience of prospective teacher or training provider in delivering similar training.		<u>Schedule 4B – Module Teaching Plans (Elective Modules)</u> • Module title • Objectives • Alignment with the Programme objectives and school's vision • Expected learning outcomes • Indicative syllabus • Teaching/learning methods • Supporting activities, tools and materials • Teaching staff resources • Teaching/learning hours
For the two project briefs, merits will be given if the proposals can articulate the project title, objectives, scope, expected learning outcomes and facilitation measures to guide students to complete the project of selected themes and domains.		<u>Schedule 4C – S4 and S5 Project</u> • Project title, objectives and scope • Expected learning outcomes • Facilitation measures

Evaluation Criteria	Weighting	Submission
c. Proposed operation, administration and support arrangements	**10%**	
Merits will be given to proposals which provide effective outreaching promotion arrangements. Merits will be given to proposals which provide effective and transparent recruitment means to identify and scout talent students for IT Class. Merits will be given to proposals which provide effective and credible measures to maintain the committed class size and facilitate students from other schools to enroll in IT Class.		<u>Schedule 5 – Recruitment Strategies and Plan</u> • Committed class size in each form • Promotion strategies and plan • Recruitment process including application, selection criteria and screening method • Measures to facilitate students from other schools to enroll in IT Class
Merits will be given to proposals which provide effective measures to facilitate students to attend IT Class lessons and activities.		<u>Schedule 6 – Class Operation and Administration Arrangements</u> • Class arrangements • Support measures to facilitate students to participate in IT Class and IT Activities
Merits will be given to proposals which articulate pragmatic approach and planning for sustaining a robust teaching team, such as injecting necessary resources to supplement the capacity and capability of the existing IT teaching team to operate IT Class and IT Activities.		<u>Schedule 7 – Proposed Teaching Team for IT Class</u> • Proposed teaching team for IT Class • Profile and responsibilities of proposed IT teaching Team

Evaluation Criteria	Weighting	Submission
d. Proposed IT Activities related to IT Class training (such as short courses, seminars, programming workshops, etc.) for students from other schools to take part each year. Merits will be given to proposals which propose relevant and inspiring IT activities to complement the teaching/learning of IT Class curriculum. Merits will be given to proposals which provide effective outreaching promotion arrangements for attracting students' participation. Merits will be given to proposals which provide effective measures to facilitate students from other school to participate in IT Activities.	**10%**	Schedule 8 – IT Activity Plan for 2015/16 school year • Nature of IT Activity and its relevance to IT Class modules • Expected number of participants • Promotion and outreach arrangements • Measures to facilitate students from other schools to participate in IT Activities
e. Cost effectiveness of implementing IT Class by the applicant school Merits will be given to proposals which demonstrated a pragmatic approach and plan for enhancing existing IT facilities and IT teaching software/materials/equipment to support IT Class and IT Activities.	**5%**	Schedule 9 – Resource Plan for IT Facilities and IT Teaching Software/Materials/Equipment • Estimated cost of proposed additional IT facilities and IT teaching software/materials/equipment to support IT Class and IT Activities
Sub-total	**70%**	

Evaluation Criteria	Weighting	Submission
Assessment on the Existing Capability (30%) / Passing Score (15%)		
f. The applicant school's characteristics and strengths on existing IT curricula and pedagogy, experience to run extended IT or related programmes and work with stakeholders, and academic achievements in IT	10%	
Merits will be given to applicant schools which articulate their strengths and characteristics of teaching IT subjects with supported evidence. Merits will be given to applicant schools which have experience to run extended IT or related programme. Merits will be given to applicant schools which have experience in collaborating with tertiary institutions, industry and business organisations for teaching/learning IT.		Schedule 10 – School's Experience in Teaching IT • Characteristics and strengths of teaching IT curricula • Mechanism and experience in running extended IT or related programmes • Experience to work with tertiary institutions, industry and business organisations for teaching/learning IT
Merits will be given to applicant schools which have satisfactory academic outcomes on ICT subject in HKDSE Examination.		Schedule 11 – Academic Achievements in IT • Statistics on number of students sat in ICT subject in HKDSE Examination, and the grades attained

Evaluation Criteria	Weighting	Submission
g. The applicant's school existing resources in teaching IT	10%	
Merits will be given to applicant schools which have a robust IT teaching team with dedicated teachers with subject expertise, and be supported by an IT subject panel and allocated with sufficient resources.		Schedule 12 – Existing IT Teaching Team • Existing IT teaching team • Profile and responsibilities of existing IT teaching Team
Merits will be given to applicant schools which use prevailing IT facilities for teaching IT, and have ready access to PCs, mobile and portable devices and the Internet, as well as an effective mechanism to review and upgrade IT facilities for teaching/learning IT.		Schedule 13 – Existing IT Facilities • Existing IT facilities for teaching IT curricula • Accessibility of PCs, mobile and portable devices for learning IT curricula • Accessibility to the Internet • Ongoing mechanism to review and upgrade IT facilities

Evaluation Criteria	Weighting	Submission
h. The applicant school's track record in organising or participating in IT or related activities, and practice of sharing IT teaching resources	10%	
Merit will be given to applicant schools which have track record in organising and participating in IT related activities, and student achievements in competitions. Merits will be given to applicant schools which have experience in collaborating with academia, the industry or other parties to organise IT activities.		<u>Schedule 14 – Past IT Activities</u> • Past IT or related activities organised or participated • Number and type of award (for competitions) • Experience in collaborating with academia, industry or other parties in past IT activities
Merits will be given to applicant schools which have experience to share IT teaching resources with other schools.		<u>Schedule 15 – Sharing IT Teaching Resources and Experience</u> • Type of IT teaching resource • Channel and medium for sharing teaching resources
Sub-total	30%	

73. Applicant school, whose proposal submitted met the passing score, may upon request be required to make presentation to the evaluation panel to clarify specific points in its proposal.

74. The Government is not bound to select any proposal received.

V. SUBMISSION OF PROPOSALS

75. Proposals shall be delivered by hand in sealed envelope marked with words

"**RESTRICTED - Proposal to Develop and Implement Enriched IT Class Programme in Secondary Schools"**

to the following address by **12:00 noon on 31 March 2015**. Late proposal will not be considered.

Office of the Government Chief Information Officer
15/F, Wanchai Tower, 12 Harbour Road, Wan Chai, Hong Kong
(Attn: Secretariat of Enriched IT Programme in Secondary Schools)

76. The proposal shall be signed and submitted in THREE hardcopies and ONE softcopy on a CD/DVD. The applicant school shall make certain that the information contained in the proposal is accurate. In the event of conflict between the hardcopy and the softcopy, the hardcopy shall prevail.

77. The applicant school shall complete all the schedules at **Annex B** in the manner described therein. Any other relevant reference materials can also be submitted.

78. In the event of a typhoon signal no. 8 or above being hoisted or the black rainstorm warning signal being issued between 9:00 a.m. and noon on the date of submission mentioned above, then the closing date will be postponed to the first working day (excluding Saturday) after the day the typhoon signal no. 8 or above or the black rainstorm warning signal is lowered.

BRIEFING AND ENQUIRY

79. Three identical briefing sessions on this Request for Proposals exercise will be conducted with details as follows —

Date	Time	Venue
Session 1		
11 March 2015	3:00 pm to 5:30 pm	Auditorium, North District Town Hall, 2 Lung Wan Street, Sheung Shui, New Territories
Session 2		
12 March 2015	3:00 pm to 5:30 pm	Lecture Theatre, 4/F, West Block, Education Bureau Kowloon Tong Education Services Centre, 19 Suffolk Road, Kowloon Tong.
Session 3		
13 March 2015	3:00 pm to 5:30 pm	G/F, Auditorium, Central Government Offices, 2 Tim Mei Avenue, Tamar, Hong Kong.

80. Each school may nominate up to two representatives to attend the briefing. Registration can be made online via the Enriched IT Programme Portal at http://www.eitp.gov.hk or email to scitp_secretariat@ogcio.gov.hk with the name of school and school code, names and titles, email addresses, and telephone numbers of the attendants and choices of briefing session on or before **26 February 2015**. We will confirm your enrollment via email.

81. Schools may download this RFP document from the Enriched IT Programme Portal. For enquiries concerning the Enriched IT Programme in Secondary Schools or the RFP exercise, please send email to the address scitp_secretariat@ogcio.gov.hk or fax at 2573 7113 (Attn: Secretariat of Enriched IT Programme). To facilitate response, applicant schools are encouraged to identify the specific section/part of this RFP document to which their specific questions refer to.

DISCLOSURE OF INFORMATION

82. The Government shall have the right to disclose, whenever it considers appropriate or upon request by any third party (written or otherwise), to any person the information in the proposals.

83. Each applicant school shall complete, execute and deliver to the Government an agreement on "Consent to Disclosure" as enclosed in **Annex C** together with its proposal.

CONFIDENTIALITY

84. The applicant school shall not disclose, except with the prior written consent of the Government, at any time to any person any information received by or made known to it in relation to the proposal. All information derived from the proposal shall remain the property of the Government. The applicant school shall keep the information confidential and shall not release it in any circumstances without prior written consent from the Government. Furthermore, the applicant school shall not publish any advertising or publicity material relating to the RFP without the written consent of the Government.

INTELLECTUAL PROPERTY RIGHTS

85. All works in the submission of proposal shall not contain any materials infringing any third party intellectual property rights. The applicant school shall indemnify and keep the Government fully and effectively indemnified against all costs, claims, demands, expense and liabilities of whatsoever nature arising from or incurred for reason for any such infringement or alleged infringement.

Annex A

Terms of Reference of Steering Committee

The Terms of Reference of the Steering Committee are —

(a) To provide steer, oversee, coordinate and monitor the implementation of Enriched IT Programme;

(b) To consider and formulate curriculum enrichment and project-based learning activities for Enriched IT Class Programme;

(c) To evaluate, select and monitor Enriched IT Activities Programme;

(d) To consider and resolve concerns encountered during programme implementation;

(e) To review the Enriched IT Programme; and

(f) To advise on any matter related to the Enriched IT Programme.

Composition of Steering Committee for the First Term (2014 – 2016)

Chairman	
	Government Chief Information Officer (GCIO)
Non-official Members (Ad Personam)	
Academia	
Professor CAO Jian-nong	Chair Professor and Head Department of Computing, Faculty of Engineering, The Hong Kong Polytechnic University
Professor Roland CHIN	Deputy Vice-Chancellor and Provost; Chair Department of Computer Science, Faculty of Engineering, The University of Hong Kong
Professor Sam KWONG Tak-wu	Head and Professor Department of Computer Science, College of Science and Engineering, City University of Hong Kong
Professor LEUNG Ho-fung	Professor Department of Computer Science and Engineering, Faculty of Engineering, Chinese University of Hong Kong
Dr ONG Lay-lian	Academic Director (Information Technology) Vocational Training Council (VTC)

Industry	
Mr Dominic ALLON	Managing Director Google Hong Kong
Mr Horace CHOW	General Manager Hong Kong and Macau Microsoft Hong Kong Limited
Mr Robin LO	Managing Director Entreprise Business Group (Hong Kong), Huawei Tech. Investment Co. Ltd.
Mr Tony TAI	General Manager IBM China/Hong Kong Limited
Other Organisations	
Mr MA Hoi-hung	Chairman Hong Kong Association for Computer Education (HKACE)
Professor NG Tai-kai	Executive Director Hong Kong Academy for Gifted Education (HKAGE)
Professor TAM Kar-yan	Council Member Curriculum Development Council (CDC)
Mr Albert WONG	Chairman Association of I.T. Leaders in Education (AiTLE)
Ex-officio Members	
	Deputy Government Chief Information Officer (Policy and Community) Office of the Government Chief Information Officer
	Principal Assistant Secretary (Curriculum Development) Education Bureau
Representatives of Partner Schools	
Secretary	
	Chief Systems Manager (Industry Facilitation) Office of the Government Chief Information Officer

Schedule 1 – Declaration and Commitment **Annex B**

Development and Implementation of Enriched IT Class Programme in Secondary Schools

I confirm that: (Please mark "√" as appropriate.)

☐ All information given in this application is true and accurate. I understand that if I willfully give any false information or withhold any material information, the application will become void and any grant approved will be withheld and any payment made shall be refunded to OGCIO.

☐ If our proposal is accepted, we will commit to
- develop and implement the Enriched IT Class Programme in our school according to our submitted proposal;
- comply to all the obligations and requirements specified in the Request For Proposal document

Name of School		
Name of School Supervisor		
Signature of School Supervisor		
Date		School Chop

Schedule 2 - School Particulars **Annex B**

School Name:	(English)						
	(Chinese)						
School Code:							
Finance Type:	□ Government □ Aided □ Caput □ Direct Subsidy Scheme						
School Address:	(English)						
	(Chinese)						
School Website:							
School Head:	(English)						
	(Chinese)						
Telephone No.:							
Fax No.:							
Email Address:							
Person-in-charge of the Enriched IT Programme:	(English)						
	(Chinese)						
Post:							
Telephone No.:							
Fax No.:							
Email Address:							

<table>
<tr><td colspan="7">Number of Classes/Students studying local curriculum
S1-S3: CL / IT related School-based Curriculum
S4-S6: HKDSE ICT subject</td></tr>
<tr><td>2014/15 School Yr</td><td>S1</td><td>S2</td><td>S3</td><td>S4</td><td>S5</td><td>S6</td></tr>
<tr><td>No. of Classes:</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>No. of Students:</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Breakdown by Elective:</td><td colspan="3">Databases</td><td></td><td></td><td></td></tr>
<tr><td></td><td colspan="3">Data Communications and Networking</td><td></td><td></td><td></td></tr>
<tr><td></td><td colspan="3">Multimedia Production and Web Site Development</td><td></td><td></td><td></td></tr>
<tr><td></td><td colspan="3">Software Development</td><td></td><td></td><td></td></tr>
<tr><td colspan="7">Partner school should start running IT Class from Secondary 2 from 2015/16 school year.

Partner school can also propose to start running Secondary 4 in tandem with Secondary 2 in 2015/16 school year.</td></tr>
<tr><td colspan="4">Propose to start S4 in tandem with S2 in 2015/16 school year</td><td colspan="3">Yes/No</td></tr>
</table>

Schedule 3 - Vision, Plan and Commitment from School **Annex B**

Partner schools should articulate their schools' vision and objectives with the objectives of the Programme, set desired outcomes with measurable and credible key performance indicators (KPIs), and establish effective governance and management mechanism for running the Programme in their secondary schools. Partner schools should obtain support of their School Management Committees (SMCs)/Incorporated Management Committees (IMCs) and Parent-Teacher Associations (PTAs).

Please provide the following information about your proposal.

(a) Vision and Objectives of Running Enriched IT Class Programme
(b) Proposed Approaches, Expected Outcomes and Key Performance Indicators
(c) Proposed Governance and Management Mechanism
(d) Support from SMC/IMC, PTA, etc. (e.g. meeting minutes, administrative records)

Schedule 4A - School-based IT Enrichment Curriculum (Core Module Plan) Annex B

The Steering Committee has developed the objectives, expected learning outcomes and indicative syllabus for each core module.

Please provide information on (a) teaching/learning tools or resources; (b) teaching/learning methods; (c) teaching staff resources; and (d) time breakdown on teaching/learning hours.

Teaching Module	**S2(1) – Creative Thinking**
Objectives	**This module aims to** introduce students to the basic principles underlying creativity and to equip them the knowledge of creative thinking process. It provides an introduction to a range of tools such as digital sandbox game and drag-and-drop programming software, and techniques for both idea generation (Creativity) and converting those ideas into reality (Innovation). Also, it introduces the beauty, relevance, fun and multifaceted nature of computing in seeking innovative solutions to problems. Students will use sandbox and drag-and-drop programming tool such as Minecraft and Scratch/Kodu to experience creative thinking for problem-solving and innovation while teacher will act as debriefer to facilitate their reflective thinking.
Expected Learning Outcomes	**Upon completion of the module, students will be able to:** - Understand creativity and learn some basic techniques to think more creatively; - Use sandbox and other creative tools and techniques such as Minecraft to generate, evaluate and select new ideas; - Learn about effective teamwork and collaboration in brainstorming new ideas; and - Develop a program using drag-and-drop tool such as Scratch/Kodu to create animations on greeting cards and share the creations on the web.
Synopsis / Indicative Syllabus	

Unit (Content)	**Teaching/Learning Tools or Resources**	**Teaching/Learning Methods**[Note 1]
Basic principles underlying creativity		
Creative thinking process including research, exploring the connections between ideas, relax and wait, apply, review and follow up		
Technique and tools for brainstorming and manipulation of ideas such as Mind Maps, Stepladder, Affinity Diagram, Matrix analysis, etc.		

	Role play workshop and/or sandbox games such as Minecraft to stretch the creative minds of students		
	Hands-on activities based on drag-and-drop programming tool to experiment creativity, such as Scratch/Kodu to create game, create animation programs of greeting cards and post creations for sharing on the web		
	Visit to creativity centres		

Note 1: Please specify types of teaching/learning method -
(A) Classroom Lecture (B) Group Discussion / Case Study
(C) Hands-on / Laboratory (D) Activity such as visits
(E) Others, please specify

Teaching / Learning Method	**Please elaborate on the salient features or characteristics of the proposed teaching/learning methods with specific examples on laboratory and hands-on assignments, and activities such as competitions, industrial visits, etc.**
Teaching Staff Resources	**Who will be responsible for delivering the module <u>predominantly</u>? Please elaborate on the experience of trainer(s) in delivering similar training.**

Time Breakdown (hrs)

Type of Teaching/Learning Method	**Teaching/Learning Hours**
Classroom Lecture	
Group Discussion / Case Study	
Hands-on / Laboratory	
Activity such as visits	
Others, please specify	
Total (24 hours minimum)	

Schedule 4A - School-based IT Enrichment Curriculum (Core Module Plan)

<table>
<tr><td>Teaching Module</td><td>S2(2) – Mobile Apps</td></tr>
<tr><td>Objectives</td><td>This module aims to provide students with knowledge and practice on development process of mobile apps.</td></tr>
<tr><td>Expected Learning Outcomes</td><td>Upon completion of the module, students will be able to:
- Understand the fundamentals about mobile computing, including the devices, applications and markets;
- Develop a mobile app such as a shooting game using App Inventor;
- Understand the fundamentals of mobile apps development on iOS / Android / Windows platform; and
- Comprehend various features for mobile computing.</td></tr>
<tr><td>Synopsis / Indicative Syllabus</td><td>
<table>
<tr><th>Unit (Content)</th><th>Teaching/Learning Tools or Resources</th><th>Teaching/Learning Methods Note 1</th></tr>
<tr><td>Mobile computing environment, including devices, applications, and markets</td><td></td><td></td></tr>
<tr><td>Understanding fundamentals and development of mobile apps</td><td></td><td></td></tr>
<tr><td>Develop a mobile app such as a shooting game using drag-and-drop programming tools</td><td></td><td></td></tr>
<tr><td>Introduction to software development kit, integrated development environment and emulator on iOS / Android / Windows platform for mobile apps development</td><td></td><td></td></tr>
<tr><td>Exploration on mobile apps development including user interface, graphics, multimedia, sensors, etc.</td><td></td><td></td></tr>
<tr><td>Industrial visit to local mobile apps development house</td><td></td><td></td></tr>
</table>
Note 1: Please specify types of teaching/learning method -
(A) Classroom Lecture (B) Group Discussion / Case Study
(C) Hands-on / Laboratory (D) Activity such as visits
(E) Others, please specify
</td></tr>
</table>

<table>
<tr><td>Teaching / Learning Method</td><td>Please elaborate on the salient features or characteristics of the proposed teaching/learning methods with specific examples on laboratory and hands-on assignments, and activities such as competitions, industrial visits, etc.</td></tr>
<tr><td>Teaching Staff Resources</td><td>Who will be responsible for delivering the module <u>predominantly</u>? Please elaborate on the experience of trainer(s) in delivering similar training.</td></tr>
<tr><td>Time Breakdown (hrs)</td><td>
<table>
<tr><th>Type of Teaching/Learning Method</th><th>Teaching/Learning Hours</th></tr>
<tr><td>Classroom Lecture</td><td></td></tr>
<tr><td>Group Discussion / Case Study</td><td></td></tr>
<tr><td>Hands-on / Laboratory</td><td></td></tr>
<tr><td>Activity such as visits</td><td></td></tr>
<tr><td>Others, please specify</td><td></td></tr>
<tr><td>Total (24 hours minimum)</td><td></td></tr>
</table>
</td></tr>
</table>

Schedule 4A - School-based IT Enrichment Curriculum (Core Module Plan)

<table>
<tr><td>Teaching Module</td><td>S2(3) – Digital Games</td></tr>
<tr><td>Objectives</td><td>This module aims to introduce students to the fascinating world of digital game production. Students will discover characteristics of different game genres and platforms, operation of game systems as well as basic elements of game design through case studies and game trials. Students will also learn to create their own games using non-programming game making tools. Students will understand how to improve gamer experience by making use of relevant emerging technologies such as big data analytics and motion sensing technology.</td></tr>
<tr><td>Expected Learning Outcomes</td><td>Upon completion of the module, students will be able to:
- Describe the characteristics of different game genres and platforms as well as operation of game systems;
- Evaluate a game with respect to basic elements of game design;
- Design a game and present it with a game design document;
- Create their first game using non-programming game making tools;
- Understand the concepts of big data analytics and motion sensing technology and how they could enhance gamer experience; and
- Develop an appreciation for and an understanding of the game production process in local game industry.</td></tr>
<tr><td>Synopsis / Indicative Syllabus</td><td>
<table>
<tr><th>Unit (Content)</th><th>Teaching/Learning Tools or Resources</th><th>Teaching/Learning Methods Note 1</th></tr>
<tr><td>Game genres (e.g. action, strategy, role-playing, sports, simulation, adventure, etc.), game platforms (console, mobile, arcade and PC) and game systems</td><td></td><td></td></tr>
<tr><td>Basic elements of game design (gameplay, storytelling, characters design, user interface design and level design)</td><td></td><td></td></tr>
<tr><td>Design and develop a game with reference to basic elements of game design</td><td></td><td></td></tr>
<tr><td>Big data analytics and motion sensing technology to enhance gamer experience</td><td></td><td></td></tr>
<tr><td>Visit to local game industry</td><td></td><td></td></tr>
</table>
Note 1: Please specify types of teaching/learning method -
(A) Classroom Lecture (B) Group Discussion / Case Study
(C) Hands-on / Laboratory (D) Activity such as visits
(E) Others, please specify
</td></tr>
</table>

<table>
<tr><td>Teaching / Learning Method</td><td>Please elaborate on the salient features or characteristics of the proposed teaching/learning methods with specific examples on laboratory and hands-on assignments, and activities such as competitions, industrial visits, etc.</td></tr>
<tr><td>Teaching Staff Resources</td><td>Who will be responsible for delivering the module <u>predominantly</u>? Please elaborate on the experience of trainer(s) in delivering similar training.</td></tr>
<tr><td>Time Breakdown (hrs)</td><td>
<table>
<tr><th>Type of Teaching/Learning Method</th><th>Teaching/Learning Hours</th></tr>
<tr><td>Classroom Lecture</td><td></td></tr>
<tr><td>Group Discussion / Case Study</td><td></td></tr>
<tr><td>Hands-on / Laboratory</td><td></td></tr>
<tr><td>Activity such as visits</td><td></td></tr>
<tr><td>Others, please specify</td><td></td></tr>
<tr><td>Total (24 hours minimum)</td><td></td></tr>
</table>
</td></tr>
</table>

Schedule 4A - School-based IT Enrichment Curriculum (Core Module Plan)

<table>
<tr><td>Teaching Module</td><td colspan="3">S3(1) – Problem Solving & Programming</td></tr>
<tr><td>Objectives</td><td colspan="3">This module aims to provide students with knowledge and practice in developing computational thinking and programming abilities It will inspire students the beauty and relevance of computational thinking to solve everyday problems. Students will learn object-oriented programming as a manifestation of how computational thinking can be applied in problem solving. Students will acquire computational thinking techniques such as problem decomposition, pattern recognition and abstraction.</td></tr>
<tr><td>Expected Learning Outcomes</td><td colspan="3">Upon completion of the module, students will be able to:
- Understand what computational thinking is and how it is happening in everyday life and influencing/integrating with other disciplines such as biology, chemistry, engineering and finance;
- Learn computer science fundamentals underpinning computational thinking skills, including conceptualization, problem decomposition, pattern recognition and generalisation, and abstraction to model and solve problems; and
- Develop a computer program with object-oriented features on data abstraction, pointers, classes and class hierarchy, using C#, C++, Java or Python to develop computational thinking skills to solve authentic problems such as simulating a vending machine.</td></tr>
<tr><td>Synopsis / Indicative Syllabus</td><td>Unit (Content)</td><td>Teaching/Learning Tools or Resources</td><td>Teaching/Learning Methods Note 1</td></tr>
<tr><td></td><td>Overview of computational thinking and how it is happening in everyday life and influencing/integrating with other disciplines such as biology, chemistry, engineering and finance; and problem solving</td><td></td><td></td></tr>
<tr><td></td><td>Computer science fundamentals underpinning computational thinking skills such as conceptualization, problem decomposition, pattern recognition, generalization, trial and error, iteration and backtracking</td><td></td><td></td></tr>
<tr><td></td><td>Principles of abstractions to model and solve problems in the context of computer science, systems analysis and design, and program design</td><td></td><td></td></tr>
</table>

	Game-based learning and quiz competition to develop computational thinking skills to handle challenges and problems		
	Introduction to object-oriented programming languages such as C#, C++, Java or Python including data abstraction, pointers, arrays, strings, file operations with pointers, classes and class hierarchy		
	Students will develop a program to simulate a vending machine		

Note 1: Please specify types of teaching/learning method -
(A) Classroom Lecture (B) Group Discussion / Case Study
(C) Hands-on / Laboratory (D) Activity such as visits
(E) Others, please specify

Teaching / Learning Method	**Please elaborate on the salient features or characteristics of the proposed teaching/learning methods with specific examples on laboratory and hands-on assignments, and activities such as competitions, industrial visits, etc.**
Teaching Staff Resources	**Who will be responsible for delivering the module <u>predominantly</u>? Please elaborate on the experience of trainer(s) in delivering similar training.**

Time Breakdown (hrs)

Type of Teaching/Learning Method	**Teaching/Learning Hours**
Classroom Lecture	
Group Discussion / Case Study	
Hands-on / Laboratory	
Activity such as visits	
Others, please specify	
Total (24 hours minimum)	

Schedule 4A - School-based IT Enrichment Curriculum (Core Module Plan)

<table>
<tr><td>Teaching Module</td><td>S3(2) – Robotics & Sensors</td></tr>
<tr><td>Objectives</td><td>This module aims to introduce students to the principles of programming robotics and computerized numerically controlled (CNC) machine via interaction with sensor and motor components. It will cover basic knowledge of different types and applications of robots and sensors (e.g. factory, military, research, entertainment and healthcare).</td></tr>
<tr><td>Expected Learning Outcomes</td><td>Upon completion of the module, students will be able to:
- Describe concepts, applications of robotics and influence to the society;
- Understand the basic components of a robotic; and
- Construct and program a simple robotic with sensors to complete simple tasks.</td></tr>
<tr><td>Synopsis / Indicative Syllabus</td><td>
<table>
<tr><th>Unit (Content)</th><th>Teaching/Learning Tools or Resources</th><th>Teaching/Learning Methods Note 1</th></tr>
<tr><td>History, concepts and technologies of computerized numerically controlled (CNC) machines such as robot and its applications (e.g. computer integrated manufacturing used in industrial and scientific process control)</td><td></td><td></td></tr>
<tr><td>Basic components of robot and robot design</td><td></td><td></td></tr>
<tr><td>How to code program to operate a robot via interaction with sensor and motor components</td><td></td><td></td></tr>
<tr><td>Industrial visit (e.g. Advanced Robotics Laboratory of HKU, Airport baggage handling system, Pharmaceutical manufacturing company, robot manufacturing company)</td><td></td><td></td></tr>
<tr><td>Participate in or observe robotics / CNC machine related competitions (e.g. FIRST Robotics Competition/ Robocon HK Contest/ Infomatrix robotics competitions)</td><td></td><td></td></tr>
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</td></tr>
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Schedule 4A - School-based IT Enrichment Curriculum (Core Module Plan)

<table>
<tr><td>Teaching Module</td><td>S3(3) – 3D Modeling & Augmented Reality</td></tr>
<tr><td>Objectives</td><td>This module aims to equip students with fundamentals of 3D modeling and Augmented Reality (AR) such as polygonal modeling, simple lighting and shading, texturing techniques, etc. Students will create 3D model of a simple object with their imagination and print it out using 3D printing. In addition, the module will inspire students to appreciate the benefits and the applicability of AR in daily life across various fields.</td></tr>
<tr><td>Expected Learning Outcomes</td><td>Upon completion of the module, students will be able to:
- Understand basic concepts in 3D modeling processes and design techniques;
- Use polygonal modeling to realize design ideas;
- Be familiar with operations of a 3D modeling software;
- Create a 3D model with editing tools e.g. souvenir;
- Understand key concepts in AR; and
- Appreciate various applications of AR in different fields.</td></tr>
<tr><td>Synopsis / Indicative Syllabus</td><td>
<table>
<tr><th>Unit (Content)</th><th>Teaching/Learning Tools or Resources</th><th>Teaching/Learning Methods Note 1</th></tr>
<tr><td>Fundamentals of 3D Modeling (e.g. wire-frame model, polygon mesh, constructive solid geometry)</td><td></td><td></td></tr>
<tr><td>3D modeling processes and design techniques (e.g. polygonal modeling, curve modeling, lighting & shading and texturing)</td><td></td><td></td></tr>
<tr><td>Introduction to 3D modeling software interface and navigation. Demonstration & student workshop in designing 3D model</td><td></td><td></td></tr>
<tr><td>Fundamentals of Augmented Reality (AR) (e.g. tracking, display, input devices, developer tools)</td><td></td><td></td></tr>
<tr><td>Case studies and group discussions on different AR applications (e.g. Google Glass, AR games, Discover HK – AR, virtual fitting room, virtual furniture catalog, sports broadcast)</td><td></td><td></td></tr>
<tr><td>Visit to company / institution</td><td></td><td></td></tr>
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</td></tr>
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<tr><td></td><td>Note 1: Please specify types of teaching/learning method -
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(E) Others, please specify</td></tr>
<tr><td>Teaching / Learning Method</td><td>Please elaborate on the salient features or characteristics of the proposed teaching/learning methods with specific examples on laboratory and hands-on assignments, and activities such as competitions, industrial visits, etc.</td></tr>
<tr><td>Teaching Staff Resources</td><td>Who will be responsible for delivering the module <u>predominantly</u>? Please elaborate on the experience of trainer(s) in delivering similar training.</td></tr>
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Schedule 4A - School-based IT Enrichment Curriculum (Core Module Plan)

<table>
<tr><td>Teaching Module</td><td colspan="3">S4(1) – Software Development & Technology Appreciation 1</td></tr>
<tr><td>Objectives</td><td colspan="3">This module aims to introduce students to the principles of software analysis. It will also gear up students' ability on object-oriented programming techniques. Throughout the course, students will be exposed to the latest cutting edge IT technology and applications via participation in industrial visits, workshops, seminars, etc.</td></tr>
<tr><td>Expected Learning Outcomes</td><td colspan="3">Upon completion of the module, students will be able to:
- Understand the fundamental principles and ingredients of object-oriented software analysis;
- Acquire object-oriented (OO) programming techniques including encapsulation, data structures, inheritance, polymorphism, etc.;
- Write an OO program, for example, to compare efficiency of three fundamental sorting algorithms (insertion sort, merge sort, and quicksort) in C#, C++, Java or Python;
- Analyse an information system problem using the object-oriented paradigm; and
- Appreciate the latest cutting edge IT technology and applications.</td></tr>
<tr><td>Synopsis / Indicative Syllabus</td><td>Unit (Content)</td><td>Teaching/Learning Tools or Resources</td><td>Teaching/Learning Methods Note 1</td></tr>
<tr><td></td><td>Object-orientated programming techniques such as modularisation, cohesion, coupling, reuse, encapsulation, data structures (stacks, queues, etc.), information hiding, abstract data types, objects and classes, single and multiple inheritance, polymorphism, dynamic binding, abstract classes and interfaces, method overloading and overriding, dynamic construction and destruction of objects, events, exceptions and assertions, graphical user interface (GUI), database access connectivity, multi-threading, memory management by garbage collection</td><td></td><td></td></tr>
</table>

	Software Analysis Principles: boundary, control and entity classes; class modeling – class diagrams and responsibilities; dynamic modeling – state charts activity and interaction diagrams		
	Appreciation on the latest cutting edge IT technology and application		

Note 1: Please specify types of teaching/learning method -
(A) Classroom Lecture (B) Group Discussion / Case Study
(C) Hands-on / Laboratory (D) Activity such as visits
(E) Others, please specify

Teaching / Learning Method	**Please elaborate on the salient features or characteristics of the proposed teaching/learning methods with specific examples on laboratory and hands-on assignments, and activities such as competitions, industrial visits, etc.**
Teaching Staff Resources	**Who will be responsible for delivering the module <u>predominantly</u>? Please elaborate on the experience of trainer(s) in delivering similar training.**

Time Breakdown (hrs)

Type of Teaching/Learning Method	**Teaching/Learning Hours**
Classroom Lecture	
Group Discussion / Case Study	
Hands-on / Laboratory	
Activity such as visits	
Others, please specify	
Total (48 hours minimum)	

Schedule 4A - School-based IT Enrichment Curriculum (Core Module Plan)

<table>
<tr><td>Teaching Module</td><td>S5(1) – Software Development & Technology Appreciation 2</td></tr>
<tr><td>Objectives</td><td>This module aims to introduce students to the principles and techniques of software design and implementation. It provides students with practice on applying the theories, concepts and techniques acquired during lectures through actual accomplishment in a SA&D case study. Throughout the course, students will be exposed to the latest cutting edge IT technology and applications via participation in industrial visits, workshops, seminars, etc.</td></tr>
<tr><td>Expected Learning Outcomes</td><td>Upon completion of the module, students will be able to:
- Design a solution for an information system problem with several database tables using the object-oriented paradigm;
- Acquire concepts in software quality assurance and be able to test software;
- Document and present information system solutions using proper object-oriented notations and tools;
- Solve complex problems in groups and develop group work; and
- Appreciate the latest cutting edge IT technology and application.</td></tr>
<tr><td>Synopsis / Indicative Syllabus</td><td>
<table>
<tr><th>Unit (Content)</th><th>Teaching/Learning Tools or Resources</th><th>Teaching/Learning Methods Note 1</th></tr>
<tr><td>Software Design Principles: Detailed design, attributes and methods, metrics, mapping from OO design to relational databases</td><td></td><td></td></tr>
<tr><td>Implementation: CASE tools, relevant UML diagrams, test cases</td><td></td><td></td></tr>
<tr><td>Software verification and validation: Testing techniques and tools; static analysis; design and code reviews, inspection</td><td></td><td></td></tr>
<tr><td>Appreciation on the latest cutting edge IT technology and application</td><td></td><td></td></tr>
</table>
Note 1: Please specify types of teaching/learning method -
(A) Classroom Lecture (B) Group Discussion / Case Study
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<tr><td>Teaching / Learning Method</td><td>Please elaborate on the salient features or characteristics of the proposed teaching/learning methods with specific examples on laboratory and hands-on assignments, and activities such as competitions, industrial visits, etc.</td></tr>
<tr><td>Teaching Staff Resources</td><td>Who will be responsible for delivering the module <u>predominantly</u>? Please elaborate on the experience of trainer(s) in delivering similar training.</td></tr>
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Schedule 4A - School-based IT Enrichment Curriculum (Core Module Plan)

<table>
<tr><td>Teaching Module</td><td>S6(1) – Communication & Collaboration</td></tr>
<tr><td>Objectives</td><td>This module aims to equip students with skills in interpersonal communication, presentation, decision making, collaboration and social development. In particular, it will provide students the opportunities to practise the skills in planning and delivering effective and influential presentation on computational artifacts, and collaborating with teammates to analyse and identify improvement areas of computational artifacts.</td></tr>
<tr><td>Expected Learning Outcomes</td><td>Upon completion of the module, students will be able to:
- Understand and practise communication and influencing skills;
- Acquire and practise techniques for preparation and delivery of an effective and influential presentation, in particular in presenting a computational artifact with accurate and precise language, notations, visualisations, with emphasis on articulating its justification and appropriateness;
- Work collaboratively with teammates to analyze the strengths and weaknesses of a computational artifact and suggest improvement areas; and
- Develop a resilient, cooperative. Friendly and versatile character to cope with new and unfamiliar environment.</td></tr>
<tr><td>Synopsis / Indicative Syllabus</td><td>
<table>
<tr><th>Unit (Content)</th><th>Teaching/Learning Tools or Resources</th><th>Teaching/Learning Methods Note 1</th></tr>
<tr><td>Principles and techniques for preparation of making a presentation</td><td></td><td></td></tr>
<tr><td>Practices for making an individual presentation on a computational artifact with accurate and precise language, notations, or visualisations, with emphasis on articulating its justification and appropriateness</td><td></td><td></td></tr>
<tr><td>Group workshops and presentations to analyze the strengths and weaknesses of a computational artifact and suggest improvement areas</td><td></td><td></td></tr>
<tr><td>Outdoor visits to Youth Entrepreneurship Competition to appreciate how finalists present their computational artifacts to judges</td><td></td><td></td></tr>
</table>
</td></tr>
</table>

	Outdoor workshops/games to practise meeting challenging missions in new and unfamiliar environment to develop self-awareness, self-confidence and sense of responsibility for actions and decisions
	Note 1: Please specify types of teaching/learning method - (A) Classroom Lecture (B) Group Discussion / Case Study (C) Hands-on / Laboratory (D) Activity such as visits (E) Others, please specify
Teaching / Learning Method	**Please elaborate on the salient features or characteristics of the proposed teaching/learning methods with specific examples on laboratory and hands-on assignments, and activities such as competitions, industrial visits, etc.**
Teaching Staff Resources	**Who will be responsible for delivering the module predominantly? Please elaborate on the experience of trainer(s) in delivering similar training.**

Time Breakdown (hrs)

Type of Teaching/Learning Method	**Teaching/Learning Hours**
Classroom Lecture	
Group Discussion / Case Study	
Hands-on / Laboratory	
Activity such as visits	
Others, please specify	
Total (48 hours minimum)	

Schedule 4B - School-based IT Enrichment Curriculum (Elective Module Plan)

The two elective modules designed by partner schools could be extension of the core modules or teaching modules on new topics conducive to achieving the objectives of the IT Class.

Please propose the teaching plan for two elective modules : S2(4) and S3(4).

Teaching Module Name	**Elective Module : S2(4)**
Objectives	**This module aims to**
Alignment with School's Vision	**Please elaborate how this elective teaching module can align with the objectives of the Programme and your school's vision in running IT Class.**
Expected Learning Outcomes	**Upon completion of the module, students will be able to**
Synopsis / Indicative Syllabus	

Unit (Content)	**Teaching/Learning Tools or Resources**	**Teaching/Learning Methods** Note 1

Note 1: Please specify types of teaching/learning method -
(A) Classroom Lecture
(B) Group Discussion / Case Study
(C) Hands-on / Laboratory
(D) Activity such as visits
(E) Others, please specify

<table>
<tr><td>Teaching / Learning Method</td><td>Please elaborate on the salient features or characteristics of the proposed teaching/learning methods with specific examples on laboratory and hands-on assignments, and activities such as competitions, industrial visits, etc.</td></tr>
<tr><td>Teaching Staff Resources</td><td>Who will be responsible for delivering the module <u>predominantly</u>? Please elaborate on the experience of trainer(s) in delivering similar training.</td></tr>
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<table>
<tr><th>Type of Teaching/Learning Method</th><th>Teaching/Learning Hours</th></tr>
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<tr><td>Group Discussion / Case Study</td><td></td></tr>
<tr><td>Hands-on / Laboratory</td><td></td></tr>
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<tr><td>Total (24 hours minimum)</td><td></td></tr>
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Schedule 4B - School-based IT Enrichment Curriculum (Elective Module Plan)

<table>
<tr><td>Teaching Module Name</td><td>Elective Module : S3(4)</td></tr>
<tr><td>Objectives</td><td>This module aims to</td></tr>
<tr><td>Alignment with School's Vision</td><td>Please elaborate how this elective teaching module can align with the objectives of the Programme and your school's vision in running IT Class.</td></tr>
<tr><td>Expected Learning Outcomes</td><td>Upon completion of the module, students will be able to</td></tr>
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<tr><td>Teaching Staff Resources</td><td>Who will be responsible for delivering the module <u>predominantly</u>? Please elaborate on the experience of trainer(s) in delivering similar training.</td></tr>
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<tr><td>Others, please specify</td><td></td></tr>
<tr><td>Total (24 hours minimum)</td><td></td></tr>
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Schedule 4C - School-based IT Enrichment Curriculum (Project Module Plan)

Secondary 4 project module and Secondary 5 project module are the crucial component for senior secondary students to develop their abilities in self-directed learning and exploration in IT domains. Partner schools should design and provide at least two project briefs each for S4 and S5 on selected themes or domains for student choices.

Please propose one project brief for S4 Project Module and one project brief for S5 Project Module.

(a) Project Brief for S4 Project Module	
Project Title, Objectives and Scope	**Please describe the objectives and scope of the project.**
Expected Learning Outcomes	**Please state clearly what types of knowledge/skills will be acquired by students when they completed the project.**
Facilitation Measures	**Please describe measures to guide students to complete the project. For example, how to facilitate students self-directed learning and exploration.**

(b) Project Brief for S5 Project Module	
Project Title, Objectives and Scope	**Please describe the objectives and scope of the project.**
Expected Learning Outcomes	**Please state clearly what types of knowledge/skills will be acquired by students when they completed the project.**
Facilitation Measures	**Please describe measures to guide students to complete the project. For example, how to facilitate students self-directed learning and exploration.**

Schedule 5 - Recruitment Strategies and Plan **Annex B**

Partner schools should develop and implement effective, open and equitable recruitment process to identify, scout and develop students for IT Class. Measures should be developed to facilitate talented students from other schools to enroll in IT Class. While having the flexibility to allow students to join and exit from IT classes, partner schools should develop effective promotion and recruitment plan to maintain the class size in each level, and support measures for students joining IT Class at a later stage.

Please provide the following information about your proposal.

(a) Committed Class Size					
No. of Students	S2	S3	S4	S5	S6
(b) Promotion Strategies and Plan					
Junior IT Class					
Senior IT Class					
(c) Recruitment Process including Application, Selection Criteria and Screening Method					
Junior IT Class					
Senior IT Class					

(d) Measures to Facilitate Students from other Schools to Enroll in the IT Class
Junior IT Class
Senior IT Class

Schedule 6 – Class Operation and Administration Arrangements **Annex B**

Partner schools should develop IT class administration guide which should include procedures to administer admission, attendance, progress and achievements of IT Class students, as well as support measures to facilitate students to attend IT Class and to participate in IT Activities outside normal school hours.

Please provide the following information about your proposal.

(a) Proposed Class Arrangements
e.g. 1.5 hours every Wednesday and Friday, 3 hours every Saturday
(b) Support Measures to Facilitate Students to Participate in IT Class and IT Activities

Schedule 7 – Proposed Teaching Team for IT Class **Annex B**

Partner schools should have a robust management and teaching team with IT teachers with subject expertise to design and develop customised school-based IT enrichment curriculum and teaching modules. The teaching team should be responsible for delivering at least 50% of the school-based IT enrichment curriculum.

Please provide the following information about your proposal.

Proposed Teaching Team of IT Class
Please describe the composition of the proposed teaching team and its relationship with the school management committee/board.

Profile and Responsibilities of Teaching Team for IT Class					
No.	Name of Teacher	Academic and IT Professional Qualification	Subject Expertise[1]	Responsible Module(s) e.g. S2(2)	Responsibilities and Duties[2] beside IT Teaching
1					
2					
3					
4					
5					

Note:

1 : Subject expertise with reference to the proposed school-based IT enrichment curriculum.

2 : Responsibilities and duties related to the Programme, e.g. head or member of IT subject panel, coordinator of IT activities etc.

Schedule 8 - IT Activity Plan for 2015/16 **Annex B**

To benefit students beyond IT Class, partner schools should organise at least three IT activities related to IT Class training (such as short courses, seminars, programming workshops, etc.) for students from other schools to take part each year. Each IT activity should have at least 30 students of which one-third should come from other schools.

Please propose at least three IT activities for 2015/16 school year.

(a) IT Activity Plan for 2015/16 School Year			
No.	Name / Nature	Relevance to IT Class Modules (e.g. S2(1))	Expected Number of Participants
1			
2			
3			

(b) Promotion and Outreach Arrangements to Target Participants

(c) Measures to Facilitate Students from Other Schools to Participate in the IT Activities

Annex B

Schedule 9 - Resource Plan for IT Facilities and IT Teaching Software/Materials/Equipment

With reference to school-based IT enrichment curriculum and IT activity plan, partner schools should articulate a pragmatic approach and plan for injection of necessary resources to support the operation of IT Class and IT Activities.

A maximum provision of $1 million for acquiring and maintaining IT facilities and IT teaching software/materials/equipment for supporting IT Class and IT Activities will be released to each partner school in accordance with the annual resource plan endorsed by the Steering Committee.

Please propose your requirements for enhancing existing IT facilities and IT teaching software/materials/equipment to support IT Class and IT Activities.

Additional major IT Facilities and IT Teaching Software /Materials/Equipment to support the operation of IT Class and IT Activities (Note: Please name the relevant teaching modules if appropriate)	Estimated Cost (HK$)
1.	
2.	
3.	
4.	
5.	
6.	

Schedule 10 - School's Experience in Teaching IT **Annex B**

Please provide the following information about your proposal.

(a) Characteristics and Strengths of Teaching IT Curriculum
Junior Secondary (S1 – S3)
Senior Secondary (S4 – S6)
(b) Mechanism and Experience in running extended IT or related programme
(c) Experience to Work with Tertiary institutions, Industry and Business Organisations for teaching/learning IT

Schedule 11 - Academic Achievements in IT **Annex B**

Please provide information about students' performance on ICT subject in HKDSE Examination.

School Year	ICT Subject HKDSE Examination		
	Total No. of Students Sat In the Examination	Total No. of Students Achieved Level 3 or Above	Total No. of Students Achieved Level 5 or Above
2013/14			
2012/13			
2011/12			

Schedule 12 - Existing IT Teaching Team **Annex B**

Please provide information on the existing IT teaching team.

Existing IT teaching team
Please describe the composition of the existing teaching team and its relationship with the school management committee/board.

Profile and Responsibilities of Existing IT Teaching Team					
No.	Name of Teacher	Academic and IT Professional Qualification	Subject Expertise related to IT Teaching	Responsibilities and Duties[1] related to IT Teaching	Time Spent related to IT Teaching (%)
1					
2					
3					
4					
5					

Note:

1 : Responsibilities and duties related to the IT teaching, e.g. head or member of IT subject panel, coordinator of IT activities, etc.

Schedule 13 - Existing IT Facilities **Annex B**

Please provide information on existing IT facilities for teaching IT curricula. Please note that facilities for e-learning should not be included.

(a) Please describe major IT hardware and software for teaching IT curricula
(b) Accessibility of PCs, mobile and portable devices for learning IT curricula (such as student to device ratio)
(c) Please describe the Internet and WiFi connections in school premises, such as bandwidth and access points for students
(d) Ongoing Mechanism to Review and Upgrade IT Facilities

Schedule 14 - Past IT Activities **Annex B**

Please elaborate on each IT or related activities organised/participated <u>from 2013/14 to 2011/12</u> (in descending chronological order).

(a) IT or Related Activities Organised / Participated				
Dates / Duration	Name / Description of Activities	No. of Students	Organiser(s)	No. and Type of Award (for Competition only)

(b) Experience in Collaborating with Academia, Industry or Other Parties in Organising IT Activities for Students

Schedule 15 – Experience in Sharing IT Teaching Resources **Annex B**

Please provide information on past experience in sharing IT teaching resources from 2013/14 to 2011/12 (in descending chronological order).

Date	Type[1] of IT Teaching Resource	Channel/Medium[2] for Sharing

Note:

1 : Type of IT teaching resource, e.g. Curriculum synopsis, mode of teaching and learning, presentation slides, worksheets

2 : Channel/medium for sharing, e.g. website portal, exchange sessions/workshops among schools, events organised by teacher associations / EDB

Annex C

CONSENT TO DISCLOSURE

To: The Government of the Hong Kong Special Administrative Region

Re: Request for Proposals for Development and Implementation of Enriched IT Class Programme in Secondary Schools

We, *[insert the name of the Applicant School]*, hereby irrevocably authorise, consent and agree that the Government of the Hong Kong Special Administrative Region ("Government") may, whatever it considers appropriate or upon request by any person (written or otherwise) and without any further reference to us, disclose to any person in such form and manner as the Government deems fit —

(a) The name of our school; and

(b) The proposal submitted by us on *[insert the relevant date]*.

We hereby waive and forego our right, if any, to make any claims against the Government for any losses, damages, costs, charges, liabilities, demands, proceedings and actions that may arise out of or in consequence of such disclosure by the Government.

Name of School		School Chop
Name of School Supervisor		
Signature of School Supervisor		
Date		