

School Recruitment (Phase II: 2020/2021) for

Jockey Club Self-directed Learning in STEM Programme

The Centre for Information Technology in Education (CITE) of the Faculty of Education of the University of Hong Kong would like to invite your school to participate in the second phase, i.e. the 2020/2021 school year, of the 30-month school support programme, Jockey Club Self-directed Learning in STEM Programme, funded by The Hong Kong Jockey Club Charities Trust.

Project Goals

The overall objective of the Jockey Club Self-directed Learning in STEM Programme (March 2019 – August 2021) is to spearhead the development of an innovation schools network with sustainable momentum for transformative STEM education that foster students' 21st century skills and school strategic development.

Areas of Support

This project targets at the upper primary (P.4-6) and lower secondary (S1-3) levels in Hong Kong schools. It aims to provide support to teachers for developing their capacity to adopt self-directed learning (SDL) as a strategy to promote STEM education so as to strengthen students' ability to integrate and apply knowledge and skills across different subject disciplines to unleash their innovation and/or nurture their entrepreneurial spirit, and for schools to develop multi-level leadership to support STEM strategic development.

Core Components and Professional Development Activities

Components	Professional Development Activities
Teacher learning and professional development provisions	<p>The following activities have been proven to effectively support intra- and inter- school learning through our past and current projects on technology-enhanced learning innovations.</p> <ul style="list-style-type: none">• <i>Theme-based workshops for both primary and secondary schools</i>• <i>Primary and secondary school cluster meetings</i>• <i>Regional cluster meetings</i>• <i>School-based co-planning sessions</i>• <i>Open classroom observations</i>• <i>Leadership participation</i>
Multilevel structures and mechanisms for learning leadership development	<p>This component focuses on three types of leadership capacity that are necessary for successful and sustainable innovation within a school for transformative learning in STEM:</p> <p>Classroom practice:</p>

	<p>Teachers’ professional capacity for the design of learning, assessment and feedback innovations that foster students’ lifelong learning and 21st century competence through self-directed learning;</p> <p>Curriculum development: Teachers’ professional capacity for designing innovative curriculum units (including curriculum resources and tools) that provide students with opportunities to undertake inquiry of authentic real-life problems that require the knowledge and skills from multiple disciplinary areas; and</p> <p>Leadership capacity building: School level change leadership capacity involving senior and middle management staff in the school to motivate, kickstart, steer and scale STEM innovations for transformative learning in the school.</p>
Suite of learning technologies	<p>This suite of tools plays an important role in supporting all facets of students’, teachers’ and school leaders’ everyday practices, prioritizing self-directed learning as the pedagogy of choice, and facilitating interdisciplinary STEM integration through the appropriately indexed, rich database of learning and assessment designs and resources.</p> <p>The project will provide:</p> <ul style="list-style-type: none"> • interactive Learning and Assessment Platform (iLAP)—for student learning • Learning Design Studio (LDS)—for teachers to work collaboratively for the lesson design • extend the suite of tools to include learning analytics and visualization tools (such as dashboards), • construct a set of pedagogically grounded design patterns based on an analysis of existing best practice cases so that teachers can make versatile reuse of appropriate design elements from teachers’ accumulated expertise and experiences, and • devise and construct a database of school level innovation trajectories.
Leadership hub for self-organizing Network expansion	<p>The leadership hub comprises mentor schools that are identified to have the strongest innovation capacity and track record among the participating schools. These mentor schools will be given resources and professional support to carry out their mission. Starting from the second year (2020/2021), the project will expand to include new schools in the Network, and the mentor schools will play an</p>

	important role in supporting the new schools' innovation development and implementation (train the trainer's model will be used).
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Programme Achievements

According to our participating teachers, the support programme has been impacting positively on different levels of their schools. For instance, with teachers' understanding of STEM education enhanced, many of them have tried to integrate in their learning design and STEM curriculum different components of the two STEM disciplinary practices, i.e. scientific investigation and engineering design. Many teachers told us that their students became more motivated and that they seemed to enjoy the self-directedness in learning due to the new pedagogical approach. Students we interviewed told us that the new teaching approach helped them develop various 21st century skills, such as, collaboration and communication. Regarding our learning management platform, some teachers were impressed by the various pedagogical functions that iLAP can offer and they encouraged the whole school to use it. Please visit our website to know more about the support programme.

Programme website: <https://jcstem.cite.hku.hk/>

To respond to the needs of the education sector in the extended class suspension period, a website on online learning strategy and methods was developed and launched by CITE on 11 March, 2020. The website focuses on pedagogy and leadership issues related to online learning for primary and secondary schools in Hong Kong. In addition to how teachers implement different pedagogical methods in fully online mode using digital technology, the website also features rich examples of how teachers and school leaders of our participating schools make decisions on how they mobilize and support teacher learning, reach out to students and parents, make school level decisions on timetabling, assessments, and the choice of technology for coordinated and staged transitions into increasingly ambitious modes of online learning.

Online learning website: <https://elearning.cite.hku.hk/>

Expectations on Participating Schools

To ensure productive and sustainable outcomes, the participating schools are expected to ensure the following supportive conditions for project success:

- support the integration of SDL pedagogy in STEM education within the formal school curriculum (upper primary (P.4-6) or lower secondary (S1-3) levels);
- set up a school-based core team comprising at least one senior management member and teachers in at least two STEM related subjects in the school
- support teachers to collaborate with other teachers within the project for collaborative lesson planning and implementation, as well as peer lesson observation and reflection on practice (including timetable scheduling, manpower planning, etc.);

- The commitment of the principal and/or vice principal to participate in the leadership circle activities;
- encourage and provide school-based support for teachers and students to use e-Learning in the SDL-STEM lessons/activities;
- participate in the design-based and evaluation research activities of the project to ensure that the project can also be an example of continuous self-regulated improvement;
- observe strictly their legal obligations and, in all cases, comply with the Copyright Ordinance in developing school-based curriculum materials.

Application

To apply for the Programme, simply complete the Google form below. The deadline for application is 9 April, 2020 and the application results will be released on 20 April, 2020.



Deadline for application: 9 April 2020

Release of application results: 20 April 2020

Enquiries

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