BLMCSS STEM Plan 1819

Major objective of STEM in Hong Kong:

Major objectives to achieve include developing a solid knowledge base among students and enhancing their interests in Science, Technology and Mathematics, strengthening students' ability to integrate and apply knowledge and skills, nurturing creativity, collaboration and problem solving skills of students, and also strengthening the partnerships with community stakeholders, and developing talents/experts in STEM-related areas to foster the development of Hong Kong.

主要目標包括：在科學、科技及數學範疇讓學生建立穩固的知識基礎和提升他們的學習興趣，增強學生綜合和應用知識與技能的能力，培養學生的創造、協作和解決問題的能力，加強與社區持份者的夥伴協作關係，以及培養與STEM 相關的人才／ 專才，以促進本港的發展。

Holistic approach to promote STEM through six strategies as follows:

(1) Renewing the curricula of the Science, Technology and Mathematics Education KLAs;
(2) Enriching learning activities for students;
(3) Providing learning and teaching resources;
(4) Enhancing the professional development of schools and teachers;
(5) Strengthening partnerships with community key stakeholders; and
(6) Conducting review and disseminating good practices.

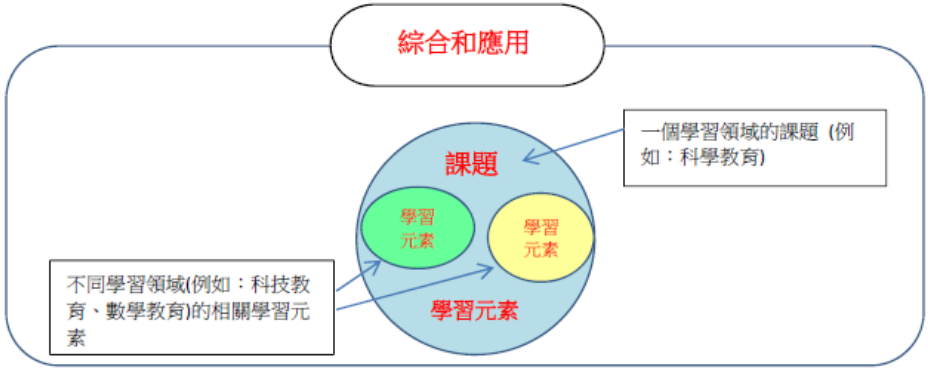
(1)更新科學、科技及數學教育學習領域的課程；
(2)增潤學生的學習活動；
(3)提供學與教資源；
(4)加強學校和教師的專業發展；
(5)加強與社區持份者的協作；以及
(6)進行檢視及分享良好示例。

School Plan:

School Major Concern	STEM Strategies to Address Relevant School's Major Concern	Major Program	Implementation Schedule	Resources and Support	Evaluation Method
1.2 (2) Enhance computing & ICT Skills in learning and research in subjects	Strengthen the STEM element of the existing subject-base curriculum and develop new strategies – Enhance integration across KLA	Refer to "Approach One" on p.3 for detail	9/2018-8/2019	STEM one-off grant	The targets in Approach One are completed with STEM elements
	Form pull-out gifted STEM programme	Form STEM Group (ECA) for in-depth training through joining STEM competitions Refer to "Approach Two" on p.5 for detail	9/2018-8/2019	STEM one-off grant	Join at least 3 competitions
	Use external resources to promote STEM education	Join University-school support programme (Edu U)	9/2018 – 12/2018	Professional Development Programme provided by Edu U	Report fro EdU

Approach One :

Learning activities based on topics of a KLA for students to integrate relevant learning elements from other KLAs.

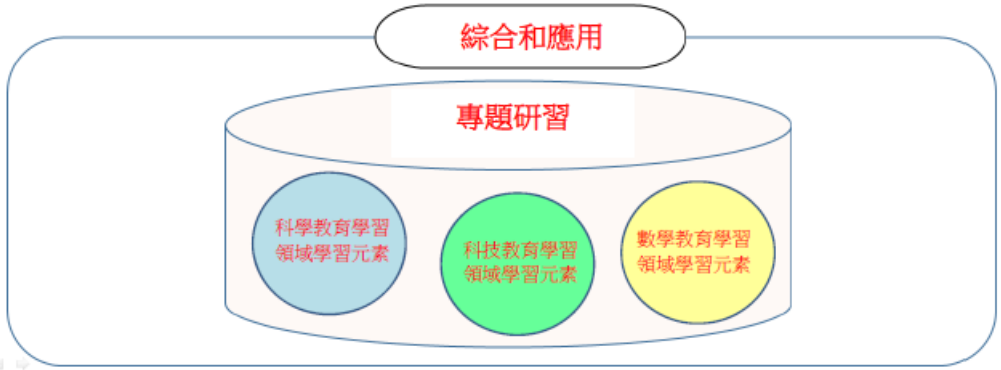


Project	Subject involved	Brief description of the content	Form level	STEM elements				
				S	T	E	M	A
VR related STEM activities	CL	Create VR interactive activity	2		✓			
	VA	Design the VR cardboard	2					✓
	Science	Using VR cardboard to understand 3D vision	2	✓				
Jelly Fish	Bio	Students have to design a sustainable ecosystem to culture jelly fish. They also use different equipment to monitor the sustainability of an ecosystem.	4 – 5 (some students)	✓	✓	✓		
Making use of mobile data-logging system to enhance scientific investigation	Phy, Chem, Bio, Sci	Different experiments and projects will make use of the mobile data-logging system for investigation.	1 – 5	✓	✓		✓	
Straw-tower ball-rolling competition	Science	Make a straw-tower and let a plastic roll from it. Try to make the ball roll as far as possible. Students are required to use Google site to record their investigation progress. **This project is supported by EdU under the**	1	✓	✓	✓		✓

		University-school support programme						
Capacitor Car	Science	Students have to make a capacitor car. The car has to carry as heavy load and light as many LED bulbs as possible. They have to calculate the power input and output. Students also need to use Google site to record the progress. **This project is supported by EdU under the University-school support programme**	2	✓	✓	✓	✓	
Robot making	CL	Teach coding through scratch	2		✓			
	DT	Use scratch to write program to control robot	2		✓	✓		

Approach Two (Pull-out gifted STEM program) :

Projects for students to integrate relevant learning elements from different KLAs.



STEM Group activities:

Internal activity	Content	Time
Using 3D printer to make self-designed object	Provide basic STEM skills: Train students to make self-designed objects.	10 – 11/2018
Introduction of coding by using Audrino	Provide basic STEM skills: Basic coding training to use Audrino as central controller.	1 – 3/2019
External competition		
Smart City Project Programme	Competition organized by EDB	Through the whole year
智能都會創新能源比賽	Competition organized by CLP	Through the whole year

END