

STEM Club

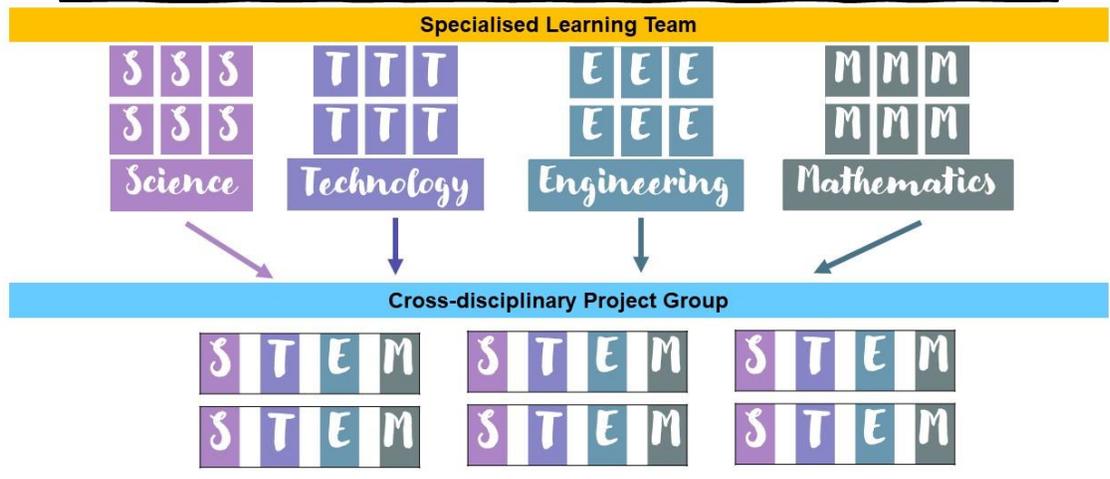
(A2STM001H)

Introduction

STEM Club was piloted in the year 2019-20 and used a jigsaw project-based learning approach to promote specialised learning and cross-disciplinary collaboration through developing proximal empathy and global compassion.

STEM Club

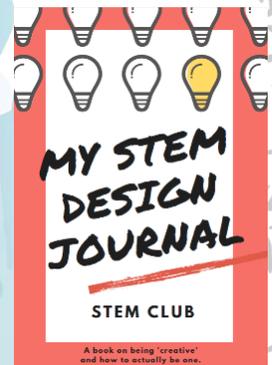
Jigsaw project-based learning approach



STEM Club is a student learning community aiming at encouraging students sharing similar interests in STEM to socialize and collaborate. Each of them should belong to a specialised S/T/E/M team to acquire and exchange knowledge through self and peer learning. Four students from different S/T/E/M specialties should also form a cross-disciplinary project group to synthesise their knowledge and efforts to formulate project ideas to solve problems and pursue innovation.

Some major activities:

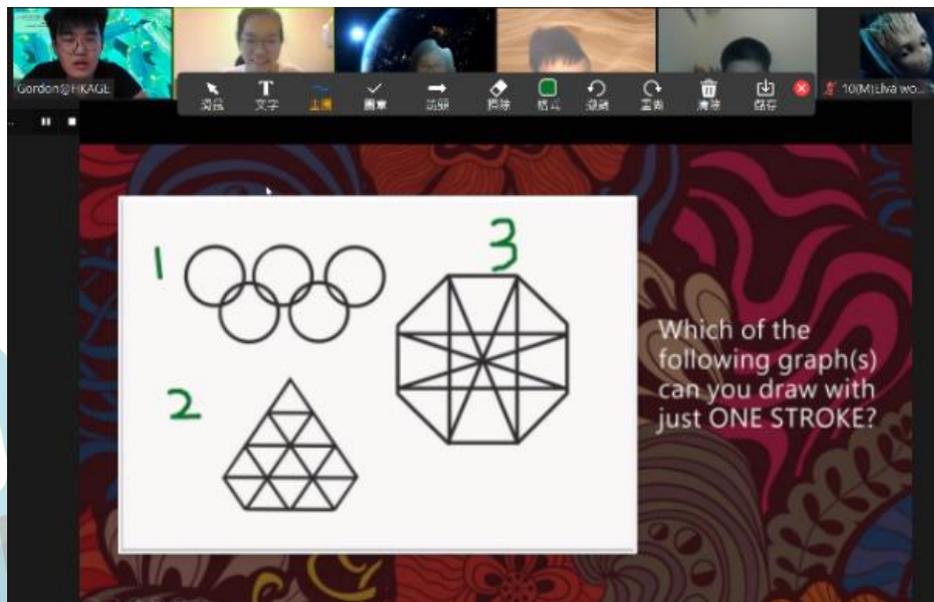
- **Specialised Learning Team (SLT)**
 - Self-learning on existing and new knowledge
 - Share the content and method with the team
- **Cross-disciplinary Project Group (CDPG)**
 - Design-thinking tool and empathy training
 - Group discussion
- **Expert Talk**
- **Experience Day**
 - Site Visit and Hands-on Workshop
- **Ethics, Character Building and 21st Century Skills**
- **My STEM Design Journal**
 - A book to document the personal growth in the design thinking process of STEM Project Initiation



Special remark:

For students admitted in this cohort of STEM Club, you will be also joining as a research participant in a research project. Your participation will also contribute to advocating a novel approach in launching STEM education curriculum.

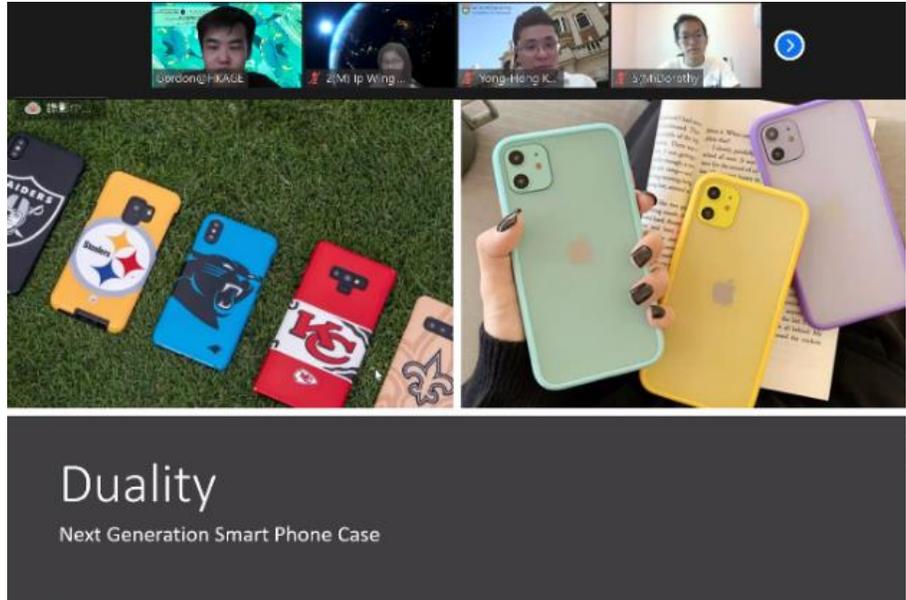
Snapshots of previous STEM Club activities



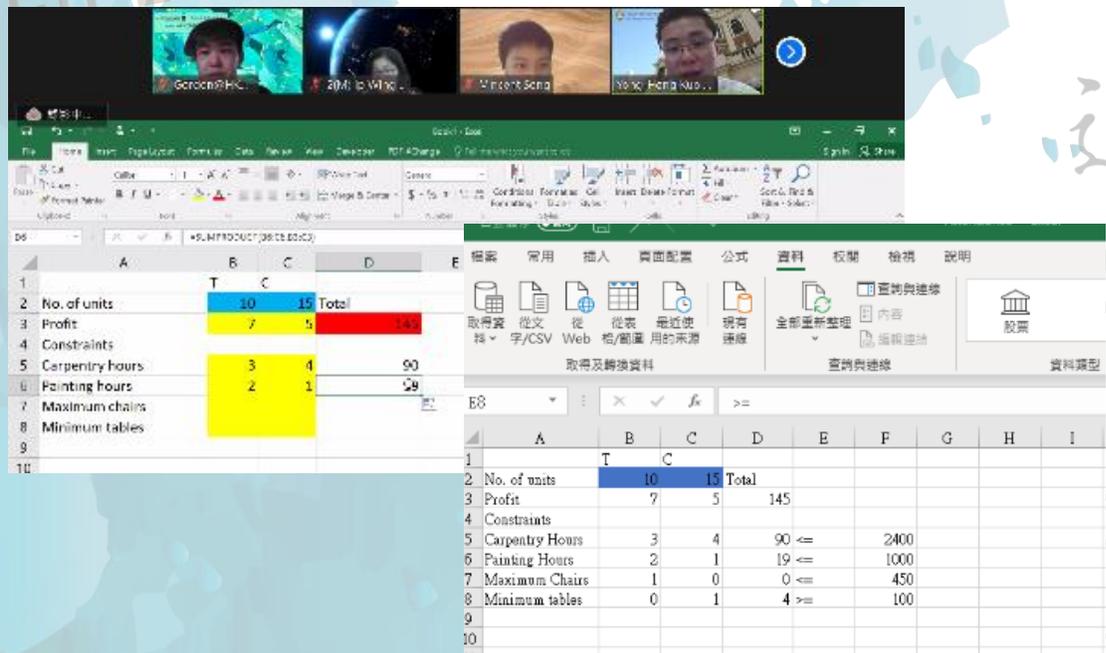
Members of Specialised Mathematics Learning Team exchange knowledge on Graph Theory



Students participate in a demonstration of an engineering theory



Members of Cross-disciplinary Project Group present their project idea on the presentation day



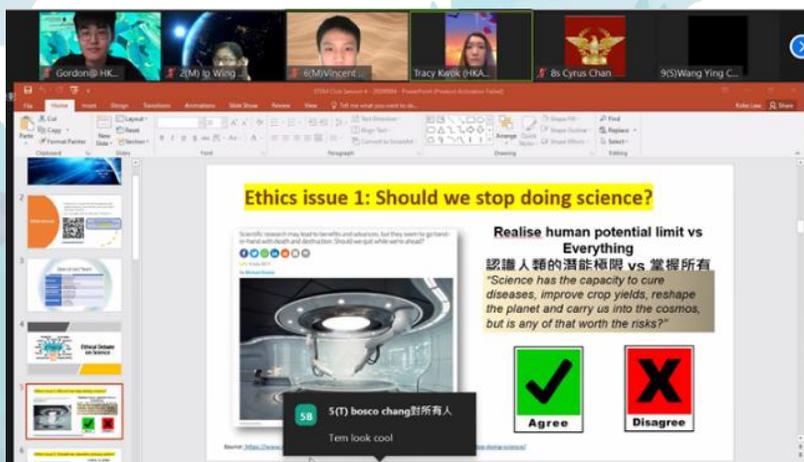
Experience Day: A practical workshop on Mathematical Modelling by Prof Kuo Yong-Hong, Assistant Professor, Department of Industrial and Manufacturing Systems Engineering, HKU

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Experience Day: An online science experiment workshop



Debate on an ethics issue "Should we stop doing science?"

Programme Type	Recruitment of STEM Club Member (Token required)
Facilitators/ Instructors	HKAGE Staff, Professional and Community Partners
Target Participants	<ul style="list-style-type: none"> ➢ P4 to S2 HKAGE members ➢ Capacity: 24
Medium of Instruction	Cantonese (supplemented with English, if necessary)

<p>E-certificate</p>	<p>Participants who have attended not less than 10 sessions and completed the student feedback form will be awarded with an e-certificate of Completion.</p> <p>Participants who have also fulfilled the performance requirements will be awarded an e-certificate with a remark of Merit or Distinction.</p> <p>The e-certificate will be issued by the HKAGE.</p>		
<p>Intended Learning Outcomes</p> 	<p>Upon completion of the programme, participants should be able to:</p> <ol style="list-style-type: none"> describe at least one interesting and meaningful STEM activities one of the STEM Club peer fellows worked on; acquire and present new knowledge through self-learning; develop better skills in using at least one digital tool for individual learning and/or group project purposes; apply design-thinking skills and empathy map to generate STEM project ideas; formulate and present a STEM project idea to address a local/ global need. 		
<p>Application Procedures</p>	<p>Please provide innovative answers to the screening questions on the online form.</p> <p>Students who show deep commitment, strong interest and understanding of the learning activities and are eager to enhance their STEM knowledge/skills through hands on projects are preferred.</p>		
<p>Application Deadline</p>	<p>19 Nov 2020 (Thursday) (12:00 n.n.)</p>	<p>Application Result Release Date</p>	<p>26 Nov 2020 (Thursday)</p>

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Schedule



Session	Date	Time	HKAGE	Activity
1	8 December 2020 (Tuesday)	6:00pm – 8:00pm	303	Specialised Team Learning
2	16 December 2020 (Wednesday)		403	
3	12 January 2021 (Tuesday)		303	
4	26 January 2021 (Tuesday)			
5	2 February 2021 (Tuesday)			
6	17 February 2021 (Wednesday)	9:00am – 11:00am	403	Project ideation, research, development, and proof of concept
7	6 March 2021 (Saturday)			
8	20 March 2021 (Saturday)			
9	17 April 2021 (Saturday)		303	
10	15 May 2021 (Saturday)		204	Other learning activities
11	22 May 2021 (Saturday)			
12	12 June 2021 (Saturday)		403	Pitching and presentation
13	26 June 2021 (Saturday)	303	Evaluation and debriefing	
14	29 June 2021 (Tuesday)		6:00pm – 8:00pm	Back-up

The programme sessions may be cancelled or rescheduled and the delivery mode may change according to the development of coronavirus epidemic and EDB guidance.

If the Education Bureau announces that all whole-day schools classes will be cancelled due to inclement weather, the programme will be cancelled or rescheduled.

For updated arrangements of inclement weather and coronavirus epidemic, please pay close attention to email notification and announcement in HKAGE website.

Enquiries

For enquiries, please contact Ms Christie So at 3940 0101 (after language selection, press 6) or email to ale@hkage.org.hk.