

Collaborative Research & Development (“Seed”) Project for 2021/22

Section	Mathematics Education Section	
Title of the Project	Promotion of STEM Education by infusing Mathematical Modelling into Secondary Mathematics	
Class Level (Please check and ✓ the appropriate box.)	<input type="checkbox"/> Kindergarten <input type="checkbox"/> Primary <input checked="" type="checkbox"/> Secondary <input type="checkbox"/> Primary and Secondary Please specify levels: <u> S1 — S6 </u>	
Brief Description (e.g. Objectives, expected outcomes)	<p>The project aims at exploring and developing effective strategies for the learning and teaching of mathematical modelling through various topics of secondary Mathematics to promote STEM education. The project investigates how concepts and techniques in mathematical modelling could be infused into mathematics topics to enhance students’ ability to integrate and apply mathematical knowledge and skills to real-life scenarios.</p> <p>The objectives and expected outcomes of the project are:</p> <ul style="list-style-type: none"> • to explore and develop effective strategies for the learning and teaching of mathematical modelling through various topics in secondary Mathematics • to promote STEM education by infusing activities of mathematical modelling with the use of the lesson time allocated to the Further Learning Unit in secondary Mathematics curriculum • to try out and refine various learning and teaching activities • to build up and support the development of resources in STEM education • to share the experiences of the participating schools and disseminate the project results through the professional development programmes for teachers 	
Key Emphases (Please check and ✓ the appropriate box(es). You can choose more than one box.)	Dimension	<input type="checkbox"/> Curriculum planning <input checked="" type="checkbox"/> Learning and Teaching <input type="checkbox"/> Assessment
	Focus	<input type="checkbox"/> Values Education (including MCE, BLE& NSE) <input type="checkbox"/> Chinese history & Chinese culture <input type="checkbox"/> Reading / Language across the Curriculum <input checked="" type="checkbox"/> STEM & IT Education <input type="checkbox"/> Entrepreneurial Spirit <input type="checkbox"/> Life-wide Learning <input type="checkbox"/> Gifted Education <input type="checkbox"/> L&T of Chinese as a second language <input type="checkbox"/> Catering for Learner Diversity <input type="checkbox"/> Self-directed Learning <input type="checkbox"/> Whole-person Development <input type="checkbox"/> Others (please specify *) _____
Deliverables (Please check and ✓ the appropriate box(es). You can choose more than one box.)	<input type="checkbox"/> Exemplars to be used for curriculum documents <input checked="" type="checkbox"/> Learning & teaching packages, self-learning packages for teachers <input checked="" type="checkbox"/> Workshops and seminars <input type="checkbox"/> Others (please specify) : _____	
Duration and Nature of the Project	From <u> 09 </u> mm <u> 21 </u> yy to <u> 08 </u> mm <u> 22 </u> yy <input type="checkbox"/> New <input checked="" type="checkbox"/> Ongoing (started from <u> 09 </u> mm <u> 19 </u> yy)	

Name of Advisor(s) / Consultant(s) to be invited	N.A.	
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Please use a separate sheet for each project.