Quality Education Fund

The Dedicated Funding Programme for Publicly-funded Schools

Part B: Project Proposal

Project Title: Makerspace in school for curricular and extracurricular activities	Project Number:
	(2018/1534) Revised

Name of School: Raimondi College

Direct Beneficiaries

(a) Sector: Kindergarten Primary Z Secondary Special School (Please put a tick in the appropriate box(es).)

(b) Beneficiaries: (1) Students: (400) (S1 - S3, STEM Club); (2) Teachers: (7); (3) Parents: /; (4) Others: //

Project Period: <u>05/2021</u> to <u>05/2023</u>

1. Project Needs

1.1	Project Aim(s)	 Developing school- based junior secondary STEM education to enhance students' creativity, collaboration and problem-solving skills. Providing students with opportunities to learn by hands-on tasks. Promoting self- directed learning
1.2	Innovative element(s)	 The School-based junior secondary STEM education will be developed to enhance students' creativity, collaboration and problem-solving skills. These STEM activities would mainly implement in Computer Literacy and some cross- curricula activities. For Computer Literacy, problem-based learning would be implemented into the curriculum. Students would complete the following projects in junior forms. 3D Design – design and make souvenir VR – design and make a school tour to visitor Product Design - design and make a product to solve App Design - design and make an application to complete a task
		 Besides, there are cross- curricula activities in which Integrated Science and Computer Literacy are involved in STEM – based projects. The projects include the following: Wind Turbine – design 3D wind turbines and use investigative approach to find out factors affecting the effectiveness of a wind turbine Rocket Car – Design Rocket Car body with the aid of computer simulation and build the fastest Rocket Car models In the above-mentioned projects, students would apply their STEM knowledge to solve problems. This provides a fundamental knowledge to all our students. Furthermore, our school has been organizing various school-based pull-out programs for gifted students to promote self- directed learning through internal and external projects and competitions. These programs including 3D-printing course, Maker course, VR course, EV3 robotic course and Tello EDU course.
1.3	Alignment with school-based / students' needs	 Our school has put STEM education into our major concerns since 2018. 2018- 2019, Refining the STEM curriculum and stretching students' abilities in collaborative creativity and problem solving under STEM education 2019- 2020, Building STEM capabilities in students through problem-based and experiential learning. 2019- 2020, Optimize conditions for students to integrate and apply STEM-related knowledge and skills in problem solving.

	To achieve the aim, school-based whole-class programs and pull-out gifted programs
	have been implemented since 2016. For school-based whole-class programs, our
	school is revising and refining STEM-based curriculum to provide a student-centered
	learning for students to have more hands- on experience and apply STEM knowledge.
	Meanwhile, school-based pull-out gifted programs are conducted by our experienced
	teachers and external organizations to maximize the potential of elite students.

2. <u>Project Feasibility</u>

2.1	Key concept (s) /	Gifted Education
	rationale(s) of the project	Gifted students are usually different from the normal students in studying since they have stronger comprehensive power. They need a deeper, broader, tailor made curriculum to be delivered in a prompt pace to meet their leaning needs. To support those gifted students, our school has been organizing academic and non-academic activities and program to maximize their potentials.
		We stream gifted students through two processes: nomination by teachers and the selection of students for off-site program. For nomination by teachers, we use school-based whole-class programs. In the curriculum, teacher use assessment or test results as our criteria to spot outstanding students.
		For the selection of students for off-site program, we consider the performances received by students in some ECA program or projects.
		Problem solving
		According to the STEM Education Report, problem solving skills is one of the major skills required in the 21 st century. Problem solving is the act of defining a problem; determining the cause of the problem; identifying, prioritizing, and selecting alternatives for a solution; and implementing a solution. With this skill, students could be ready to face the challenges in a rapid change environment.
		Hands on learning Hands-on learning is a form of education in which children learn by doing. Instead of simply listening to a teacher or instructor lecture about a given subject, the student engages with the subject matter to solve a problem or create something.
		Hands-on learning has many benefits to students, since it is a more engaging way to learn, and it can offer practice in problem solving and critical thinking. Thus, we would like to implement hands on task in both curriculum and extra curriculum activities, so students can make, invent and create things.
		Self- directed learning Self- directed learning is a type of instructional strategy in which learners take charge of their own learning process. The key components involved in Self- directed learning include learner self-management and monitoring, assessing learning needs, collaborative learning, and self-evaluation.
		Self-directed learning is effective in developing lifelong learning abilities as it allows students to explain and design their action plan, learn what and how to learn and lead themselves towards the goals. Students achieve the agreed learning outcomes through studying and thinking independently. At the same time, they learn to regulate their learning habits for higher achievements, and that develops them to be lifelong learners and self-evaluators.

2.2	Applicant's readiness or ability/ experience/ conditions/ facilities for project implementation	 Teacher The STEM teachers in Raimondi College has been teaching STEM projects for over 3 years, coaching STEM club for competitions for more than 4 years. Besides, our school has joined some STEM programs to enhance the teaching competency of teachers. The followings are the programs we have joined. Focused Learning Community on STEM Education (Assessment) Student Raimondi STEM Club has two main purposes – organizing school base project and joining competition. For School base project, students would apply STEM knowledge to serve the school and support teaching and learning. In the past few years, they organized workshops for primary students, made souvenirs and decorations for school. Besides, the Raimondi STEM Club has won the lots of awards since its establishment in 2015. Facilities For both curriculum and extra curriculum, student will learn and complete STEM task in 2 computer rooms - MMLC and Senior Computer Room. Both rooms have been equipped with Wi-Fi capability for mobile computer or tablet. However, the setting and hardware in both rooms has limited the learning of students. In order to break these obstacles, we have the following suggestions: MMLC will re-organize the furniture, so that 70% of the room will be empty space for collaboration and hands- on tasks. Senior Computer Room will have 40 powerful computer suitable for software development. The renovations of the existing computer rooms are the essential requirement to fulfil the objectives of this project.
2.3	Principal's and teachers' involvement and their roles	 STEM Team has been setup in 2017 with STEM related panel heads and teachers, leading by a Vice-principal, to promote all STEM related curricular and extra-curricular activities. STEM Cross-subject curriculum started modified in 2017-2018.
2.4	Parents' involvement / participation (if applicable)	Audience in STEM exhibition. To increase their exposure and understanding on STEM in application.
2.5	Roles of collaborator(s) (if applicable)	Our school would join the Focused Learning Community on STEM Education to enhance the teaching and learning.

2.6 Implementation timeline

Implementation period	Project activities		
(MM/YYYY)			
05/2021 - 06/2021	Preparation of the program, forming of Teachers-In-Charge groups		
05/2021 - 08/2021	Purchase of related hardware, Renovation of the Makerspace and the IT Innovation		
	Lab		
09/2021 - 08/2022	Development of curriculum, Teacher Training in using the equipment in the STEM		
	Room		
11/2021-05/2023	Implementation of curriculum, result showing, STEM exhibition for parents, Report		
	hand in. STEM competitions for local schools		

2.7 Details of project activities (Item (a)-(f) not applicable to this application can be deleted.)

 a. Student activity, if applicable
 Activity
 Content
 Number of sessions
 Teachers'
 Expected learning outcomes

 name
 (Including the topics, implementation strategies/modes, target beneficiaries,
 Number of sessions
 Teachers'
 outcomes

	selection criteria, etc.)	and duration	hired personnel (Including the roles, qualifications and experiences required of the speaker(s)/ instructor(s), etc.)		
Learning Activity- 3D Product design	 Topic: Design and make souvenir Introduction to 3D Technology Basic 3D Modelling Rotate the shapes, align the shapes Group the shapes, flip the shapes Solid and Hole Application of 3D modeling 3D printing Students would use the tablet computer to design the souvenirs. They would also print those souvenirs using the 3D printers. After that, they would assemble and color the models in Makerspace. Target Beneficiaries: S1 students 	14 lessons of 40 minutes each	To be taught by school teachers with relevant knowledge and experience	•	Understand and apply the skills of drawing 3D objects and 3D printing. Develop problem- solving skills.
Learning Activity- VR Design	 Topic: A school tour to visitor Introduction to CoSpaces Edu Object inserts Object modification Coding Publishing Students would create CoSpaces tours in the IT innovation lab. The 42-inch Panel auxiliary displays would provide closer and detailed display for students. The factory desktop computers have high computational power and stable network for VR design. 	10 lessons of 40 minutes each	To be taught by school teachers with relevant knowledge and experience	•	Understand and apply the skills of creating interactive VR tour. Develop problem- solving skills.
Learning Activity- Maker	 Topic: design and make a product to solve daily live problem 1. Introduction to micro: bit 2. Conditional statements 3. Variables 4. Arithmetic Operators 5. Input and Output devices 6. Wireless Connection 7. Circuits In this topic, students would from groups to design a product to solve daily live problem in Makerspace. They would use the 27-inch Panel displays for group discussion and presentation. Besides, use the tablet computers to code their products.	14 lessons of 40 minutes each	To be taught by school teachers with relevant knowledge and experience	•	Control input and output devices with micro- controller. Construct and program smart devices to solve daily life problem. Develop problem- solving skills.

	assemble and decorate their products with the tool in Makerspace.			
	Target Beneficiaries: S1 students			
Learning Activity- App Design	 Topic: Design and make an application to complete a task Introduction to App inventor Input Output Variable Insert Multimedia Sensor Canvas Students would design the application using the computers in the IT innovation lab. The 42-inch Panel auxiliary displays would provide closer and detailed display for students. 	14 lessons of 40 minutes each	To be taught by school teachers with relevant knowledge and experience	 Understand and apply the skills of developing mobile application Develop problem- solving skills.
Loorning	S3 students	Integrated	To be taught by	- Design a fair tast
Learning Activity- Wind Turbine	 Topic: What factors affect the efficiency of Wind Turbine Integrated Science Recognize the steps in scientific investigation Energy conversion Investigate the factors affecting the efficiency of a wind turbine generating electricity Computer Literacy Basic concepts of CAD and 3D modeling Application of IT tools such as CAD software to present design ideas Students would form groups to study the factors affect the efficiency of Wind Turbine in the Makerspace. They would use the tablets computers to design the Wind Turbine and use 3D printers to print it. After that, they would assemble the wind turbine with the tools in Makerspace. And they could carry out experiments to test their hypothesis. 	Integrated Science: 6 lessons of 40 minutes each Computer Literacy: 6 lessons of 40 minutes each	To be taught by school teachers with relevant knowledge and experience	 Design a fair test to study how a feature of wind turbine design affects the efficiency of energy conversion. Design and make 3D models of the wind turbine for the fair testing. Integrate and apply knowledge and skills of SE KLA and TE KLA. Develop problemsolving skills.
Learning Activity- Rocket Car	 Topic: Design and make the fastest possible rocket car Integrated Science Relationship between average speed, distance and time Effect of force on changing the speed and direction of motion of an 	Integrated Science: 12 lessons of 40 minutes each	To be taught by school teachers with relevant knowledge and experience	 Integrate and apply knowledge and skills of SE KLA and TE KLA. Develop problem-

	object	Computer			solving skills.
	• Friction and air resistance	Literacy:			8
	• Understand that action and reaction	2 lessons of			
	nairs	40 minutes			
	puits	each			
	Computer Literacy				
	• Time gate mechanism and computer				
	simulation (Wind Tunnel App)				
	Students would form groups to study the				
	factors affecting the speed of rocket car.				
	They would use 42-inch Panel auxiliary				
	displays for group discussion and tablets				
	to run the computer simulation. Besides,				
	they would use the open area to test their				
	rocket car.				
	Target Beneficiaries:				
	S2 students	1 ~ 1	TT 1 1.1		~
Extra-	Activity:	15 lessons	Hire teacher with	•	Students invent as
Curricular	1. Maker Course	of 90	competition		makers with
Activity	Competition:	minutes	experience for		different
Course	IFocus Ambassador Long Kong ICT Awarda Student	each	students		components
Course	Holig Kolig ICT Awards: Student Innovation Award Secondary				components.
	School Stream			•	Inventions will be
	• The Hong Kong Youth Science			•	displayed
	& Technology Innovation				internally in
	Competition				school sharing
	Competition				session and
	Students would prepare their				externally in
	competitions in Makerspace. They				various
	would use the 42-inch Panel auxiliary				competitions.
	display and equipment in Makerspace			•	Develop problem-
	for group projects during lunch time and				solving skills.
	after school.				
				٠	Develop self-
	Target Beneficiaries:				directed learning
	S1-5 STEM club students				skills
Extra-	Activity:	20 lessons	To be taught by	٠	Understand and
Curricular	1. VR Cave Control Course	of 45	school teachers with		apply the advance
Activity	2. Advance Site VR Tour Design	minutes	relevant knowledge		skills of creating
VR team	Course (VR cave)	each	and experience		interactive VR
	Students would design VD motorials in				tour.
	IT innovation lab. The 42 inch Panel				D 1 11
	auxiliary displays would provide closer			•	Develop problem-
	and detailed displays would provide closer				solving skills.
	and detailed display for students.			-	Develop self
				•	directed learning
	Target Beneficiaries:				skills
	S1-5 STEM club students			L	
Extra-	Activity:	5 lessons of	To be taught by	٠	Understand and
Curricular	1. Assemble 3D printer	45 minutes	school teachers with		apply the advance
Activity	2. 3D printing	each	relevant knowledge		skills of drawing
3D	3. Design and make souvenir		and experience		3D objects and
printing					3D printing.
team	Students would design and make 3D				
	time and after school. They would use			•	Develop problem-
1	inne and arter school. They would use	1	1	1	

	the tablet computer to design and tools to assemble those 3D objects. Target Beneficiaries: S1-5 STEM club students			•	solving skills. Develop self- directed learning skills
Extra- Curricular Activity Rocket car	Activity: 1. The fastest Rocket Car Model Competition Race to the line micro:bit UK Model Rocket Car Competition (HK Section) Students would prepare the competition in Makerspace during lunch time and after school. They would use the 27-inch Panel displays for group discussion open area to test their rocket car. Target Beneficiaries: S1-5 STEM club students	5 lessons of 90 minutes each	To be taught by school teachers with relevant knowledge and experience	•	Develop problem- solving skills. Develop self- directed learning skills
STEM Exhibition	This sharing session will be organized for the junior secondary students at the end of the school year. The sharing session will include students' sharing and booth displays which aim at summarizing the project activities, consolidating students' learning experiences and showcasing their learning outcomes. Target Beneficiaries: S1- S3 students, S1-5 STEM club students	A half-day event	STEM-related subject teachers	•	This sharing session can showcase students' learning outcomes, recognize their achievements and to encourage them to explore further.

b. Teacher training, if applicable

Activity name	Content (Including the topics, implementation strategies/modes, target beneficiaries, selection criteria, etc.)	Number of sessions and duration	Hired personnel (Including the roles, qualifications and experiences required of the speaker(s)/	Expected learning outcomes
Teacher training workshops (6 hours)	Teacher training workshops will be organized for teachers of STEM-related subjects. The content includes: 1. Curriculum planning of STEM education 2. The design and assessment of STEM-related learning activities 3. 3D design and printing 4. VR design 5. Product design	3 sessions, 2 hours for each session	<i>instructor(s), etc.)</i> School teachers with over 3 years of STEM education teaching experience	Teachers can understand the curriculum planning of STEM education and the design and focus of the STEM learning activities. They also possess the skills of using the STEM related
Lesson co-	Lesson planning discussion	5 sessions	Lesson co-planning	equipment. Lesson plan, notes and lesson materials
Lesson observation	Lesson observation	Panel will observe the teachers once per school	Lesson observation and professional sharing	Professional dialogue, self- reflection

	term.		
•		•	

c. Equipment (including installation of new fixtures or facilities), if applicable

	Details of equipment to be procured	Contribution to fulfilment of the project aim(s) and if
		applicable, the expected utilization rate
1.	2x Interactive Short Throw Projector	For Learning and Teaching activities
2.	3 x 42-inch Panel auxillary display with ceiling	For Learning and Teaching activities
	mount	
3.	8 x 27-inch Panel auxillary display with table	For group discussion and presentation
	mount	
4.	HDMI Distribution systemx2	or Learning and Teaching activities
5.	35 tablets computer, MS Windows compatible	For learning and teaching activities (Maker, STEM
		projects)
		For extra-curricular activities
		For competitions
6.	40 x Small factory desktop computer with	For learning and teaching activities (3D design, VR design)
	independent display card and FHD Monitor	For extra-curricular activities

<u>. </u>	Details of the construction works	Contribution to fulfilment of the project sim(s) and if applicable, the
	proposed	expected utilization rate
	proposed	
1.	Renovation of MMLC to	The proposed work will help optimize the utilization of space in the
	Makerspace	current MMLC, and the room will be renamed to Makerspace.
		The concrete need for the renovation of Makerspace is serving as a
		place to facilities students learning in STEM related lesson. Students
		can perform hands-on tasks and group discussion in this room.
		Besides that it would serve as an after-school STEM base for
		extracurricular activities, so this room will provide students with maker
		equipment for making, and as a STEM exhibition Centre for visitor.
		The original computer desks in MMLC are very bulky and occupied a
		lot of space. After students sitting in, it will be very crowed. This
		would be an obstacle for group discussion and hands on tasks. Besides
		that, there are electricity trunk under the table, which shall be removed,
		so students could move around to complete the STEM projects.
		As a result, to achieve our project aims, the room furniture shall be
		replaced with flexible tables and chairs. Furthermore, mounted
		furniture is needed for equipment storage.
		After the renovation, the Makerspace will be used for computer lessons
2	Renovation of Senior Computer	The proposed work will increase the number of powerful desktops
2.	Room to IT Innovation Lab	computers in this room
		Since in the curriculum, we have 3D object design and VR design, we
		need powerful desktops computers to support these learning tasks.
		However, the originally computer desks are designed for CRT monitor,
		which is very large and used up many spaces, so the Senior Computer
		Room can only contain 28 computers now. Besides, the class sizes of our school could be up to 40. Thus, we need to replace all these decks
		to contain at least 40 computers
		to contain at least to computers.
		After the renovation, the IT Innovation Lab will be used for computer
		lessons and the suggested teaching and learning activities.
3.	Mounted furniture	For the storage of STEM equipment (e.g. 10 x 3D printers, 25 x mbot,
		tools etc.) and computers in an orderly way and to allow quick assess
		of parts during lesson time and preparation time.
		Competition or projects which have collaboration work can store their
		projects in this furniture.
		r-J
4.	8 x Work bench	Tables for the Makerspace, allow to be moved around to enhance
5.	1 x Teacher Table (adjustable height)	collaboration and utilization of space.
6.	39 x Computer tables	More compact than the original CRT monitor tables, so as to contain
7.	1 x Teacher Desk	more computers in the IT Innovation Lab.

(Public sector primary and secondary schools, including DSS schools, and special schools should refer to Paragraph 8.6 and other relevant paragraphs in the <u>School Administration Guide</u>. Kindergartens under the New Kindergarten Education Scheme should observe Paragraph 1.2(1)(g) in the <u>Kindergarten Administration Guide</u>.)

e. Features of the school-based curriculum to be developed, if applicable

Our school plans to develop the school-based STEM education programme for junior secondary students by reviewing the learning sequence and content of STEM-related subjects. Cross-subject projects are now planned with computer literacy and integrated sciences.

2.8 Budget

Total Grant Sought: HK\$ _____\$902,900

Budget Categories*	5* Breakdown for the budget items		Justifications	
	Item	Amount (HK\$)	(Please provide justification for each budget item, including the qualifications and experiences required of the hired personnel.)	
a. Staff		0		
b. Service		0		
c. Equipment	2x Interactive Projector	\$44,000.00	Replacement of traditional	
			whiteboard and projection screen.	
			More Durable than traditional projectors	
	3 x Panel auxiliary display with ceiling	\$18,000.00	To provide closer and detailed	
	8 x Panel auxiliary display with table	\$28,000,00	programming	
	mount+	φ20,000.00	programming.	
	HDMI Distribution systemx2	\$18,600.00	Group discussion and presentation use.	
			Students could use the screen for ECA projects discussion.	
	35 x Tablet computers	\$122,500.00	Computers for Makerspace	
	*		* *	
			The implementation of mobile	
			device can free students and	
			activities.	
			The integrated camera and	
			microphone allow students to build	
			mobile applications.	
	40 x desktop computer with	\$240,000.00	Computers for IT Innovative Lab	
	Independent display card and FHD Monitor		The original computers are not	
	Wollton		powerful enough to handle 3D	
			object design and VR design.	
			Previously students are using their	
			own computer for competition,	
			however students without	
			activities.	
			These computers will be shared to	
	Whiteheard V 2	¢2 100	other subjects for e-learning.	
	whiteboard X 2	\$2,100		
	Chairs x 75	\$7,500		
	39 x Computer tables	\$35,100.00	More compact than the original	
			CRT monitor tables, so as to	
			Innovation Lab	
d. Works	Renovation	Floor treatment:	The Makerspace needed more	
		\$20,000	equipment and rapidly demand of	
		Wall Treatment:	STEM project, including the daily	
		\$20,000	lesson, competition.	
		Electricity and	A place for students to perform	
		Network Cabling	hands-on tasks Serve as an after-	
		\$10,000	school maker base.	

			The concrete nee for the renovation
			of Makerspace is to facilities
			students STEM related lesson,
			providing students with maker
			equipment for making, and as a
			STEM exhibition Centre for
			visitor.
	Renovation of Senior Computer Room	Floor treatment:	The proposed work will increase
	to IT Innovation Lab	\$20,000	the number of powerful desktops
		Wall Treatment: \$20,000	computers in this room.
		Electricity and	Since in the curriculum, we have
		Light: \$36,000	3D object design and VR design,
		Network Cabling:	we need powerful desktops
		\$48,000	computers to support these
			learning tasks. However, the
			originally computer desks are
			designed for CRT monitor, which
			is very large and used up many
			spaces, so the Senior Computer
			Room can only contain 28
			computers now. Besides, the class
			sizes of our school could be up to
			40. Thus, we need to replace all these desires to contain at least 40
			computers
			computers.
	Mounted furniture	Side bench:	For the storage of STEM
		\$14,000	equipment and computers in an
		Cupboards	orderly way and to allow quick
		\$102,500	assess of parts during lesson time
			and preparation time.
			Competition or projects which
			have collaboration work can store
			their projects in this furniture.
	8 x Work bench	\$12,000.00	Tables for the Makerspace, allow
	1 x Teacher Table (adjustable height)	\$2,400	to be moved around to enhance
	1 x Teacher Desk	\$1,500	collaboration and utilization of space.
e. General	Miscellaneous	\$2,026.00	•
expenses	Plastic Tray for holding project		
-	material		
	Audit Fee	\$5,000	
f. Contingency	Contingency fee for Works	\$33,140	
	Contingency fee	\$15,534	
	Total Grant Sought (HK\$) :	\$902,900	

3. <u>Expected Project Outcomes</u>

3.1	Deliverables / outcomes	☑ Learning and teaching materials □Resource package	
		e-deliverables*(<i>please specify</i>)	
		Others (please specify)	
3.2	Positive impact on quality	The project will help the school plan and develop STEM education systematically	
	education/ the school's	and nurture students to be active learners in through the establishment of the	
	development	Makerspace and the IT Innovation Lab.	

3.3 Evaluation

Please state the methodologies of evaluating project effectiveness and provide the success criteria.

(Examples: lesson observation, questionnaire survey, focus group interview, pre-test/post-test)

The project will be evaluated through observation, questionnaire surveys, group interviews and students' performance in STEM-related subjects. The evaluation items are listed below.

- 1. The effectiveness of the school-based STEM education programme for junior secondary students (success criteria: 80% of the teachers and students agree that the project helps the school promote STEM education)
- 2. To arouse students' creativity, collaboration and problem-solving skills (success criteria: 80% of the teachers and students agree that the project can help enhance students' creativity, collaboration and problem-solving skills)
- 3. To arouse students' self- directed learning (success criteria: 80% of the teachers and students agree that the project helps arouse students' self- directed learning in STEM-related subjects)
- 4. To increase the opportunities to learn by hands-on tasks. (success criteria: 80% of the teachers and students agree that the project helps increase the opportunities to learn by hand -on tasks in STEM-related subjects)

3.4 Sustainability of the project

- By the end of the project, an evaluation meeting will be held for the committee members and the teachers involved.
- They will discuss how to further develop the school-based STEM education and design learning and teaching activities of different themes.
- The maintenance fee and the purchase of new equipment of the Makerspace and IT Innovation Lab in future will be borne by the school. The school will continue to make good use of the facilities and equipment to conduct learning and teaching activities in order to enrich students' learning experience after the completion of the project.

3.5 Dissemination

Please provide a dissemination plan for sharing the good value of the project with the school sector.

- The school plans to organize a sharing exhibition for the teachers of the Catholic Diocesan Schools by the end of the project period so as to showcase students' learning outcomes, share the project experience and tips for implementing STEM learning activities.
- The deliverables will be uploaded to the school webpage and the Hong Kong Education City for teachers' reference.

Category	Item Description	No of	Total Cost	Proposed Plan for
Cutegory	item Description	Units	i otur Cost	deployment
Computer	2x Interactive Projector	2	\$44,000.00	For use by the
hardware	3 x Panel auxillary display	3	\$18,000.00	Raimondi College
	8 x Panel auxillary display	8	\$28,000.00	for the promotion of
	HDMI Distribution systemx2	2	\$18,600.00	STEM education
	35 tablets computer,	35	\$122,500.00	and future QEF
	40 x desktop computer	40	\$240,000.00	projects

3.6 Asset usage plan

3.7 <u>Report submission schedule</u>

Project Management		Financial Management	
Report Type andReport Due DateF		Report Type and	Report Due Date
Covering Period		Covering Period	
Progress Report	30/11/2021	Interim Financial Report	30/11/2021
1/5/2021-31/10/2021		1/5/2021-31/10/2021	
Progress Report	31/5/2022	Interim Financial Report	31/5/2022
1/11/2021-30/4/2022		1/11/2021-30/4/2022	
Progress Report	30/11/2022	Interim Financial Report	30/11/2022
1/5/2022-31/10/2022		1/5/2022-31/10/2022	
Progress Report	31/5/2023	Interim Financial Report	31/5/2023
1/11/2022-30/4/2023		1/11/2022-30/4/2023	
Final Report	31/8/2023	Final Financial Report	31/8/2023
1/5/2021-31/5/2023		1/5/2023-31/5/2023	