Plan on the Use of One-off STEM Grant (HK$ 200K) - to be clawed back by the end of August 2019

with additional 30K from AC Committee *(budget item named 'expenditure for STEAM education', in 2017-2018)*

School：Shun Lee Catholic Secondary School

Year ：2017/18 *and 2018/2019*

Prepared by Lui CS

Task Area	Major Area(s) of Concern	Implementation Plan	Benefits Anticipated	Implementation Schedule	Resource Required (HK$)	Performance Indicators	Assessment Mechanism	Person-in-charge
Science Learning centre *(STEM center)*	Supply of STEM facilities and resources, for maintaining the operation of the center.	Update and replace STEM materials constantly. Open STEM center in most school days.	Raise student interests in STEM.	Sept 2017-July2018	Total 30K, about HK$ 15K per year	Centre opens in at least 80% normal school days. Students visit the center comment that the center can raise their interests.	Service record log book. Student questionnaire	Mui LY
S2 STEM class	Regular and extra double lesson for S2 class, delivered by Science teachers	Task-based mini-project, aimed at developing skills and mindset for scientific investigation.	Raise student interest in STEM, especially science disciplines. Prepare skills and basic knowledge for scientific investigation.	Sept 2017-July2018 Two periods per cycle, with short (1-2 lessons) and long (3-4 lessons) projects.	Total 10K, about HK$ 5K per year. Mostly consumable, including teaching and learning materials for S2 STEM class.	Student complete assigned tasks in projects with satisfactory performance. Students find the course materials and design relevant to their learning.	More than 75% of students work are graded satisfactory by the teachers. Student Questionnaire	Ho KP

3D Printers for TL(DT) Class	Provide 3D printing facilities to DT class	Buy 3 to 6 sets of 3D printers, mostly low-end ASAP 3D design and printing will be included in S1 and S2 TL(DT) classes	Exposure to 3D printing technology	Sept 2017-July2018 .	Total 30K, in which about 20K for 2017/2018 and 10K for 2018/2019	3D design and printing are taught. Students are able to produce 3D-printed products (e.g. necklace element).	Lesson materials and student work are filed/recorded.	Poon KT
Robotics Kits and electronic modules for DT Class	Understand Automation through control technology powered by Arduino	Arduino robotics will be included in S1 and S2 TL(DT) classes. Each student will build and program his/her own robot Arduino car from scratch!	Hands-on experience and skills Exposure to authentic control technology	Sept 2017-July2018	Total 60K, about 40K for kick-off in 2017/2018, and 20K for 2018/2019	Arduino robotics are taught. Students are able to build and program Arduino cars from scratch.	Lesson materials and student work are filed/recorded.	Poon KT
Student Competition	Resources to support territory-wide student competitions	STEM-related competition will be promoted through STEM teachers in their class as well as on display board of respective subject.	Widen horizon and increase exposure to latest STEM technology for participating (talented) students	Sept 2017-July2018	Total 30K, approximately 15K per year.	Each year, more than one group of students in each level (S2-S5) participates in territory-wide competition.	Records of participation of competition.	Lui CS

Student Learning Experience	Participation in STEM related exhibitions and programmes	Subject panels will submit plan by September and arrange STEM events such as Mobile Lab / AstroLab / Workshop / Training/ Visit / Talk for different groups of students	Widen horizons and increase exposure to STEM technology for participating students.	Sept 2017-July2018	Total 45K, approximately 22.5K per year	Each year, no less than 2 STEM events are arranged, total with no less than 50 participants involved.	Records of events	Lui CS
Consumable and Miscellaneous and data logger	Incentive to supply resources to teachers and talented students, which includes books/DVD/publications/DIY kits/Tools and Hardware(including data logger)	Subject panels will submit request on demand.	Teachers may investigate the feasibility of new and latest STEM-related teaching/learning materials with more incentive Talented students may also involve in advanced STEM projects and investigation	Sept 2017-July2018	Total 25K about 12.5K per year	At least half the teachers make use of the allocation for the designated purpose.	Record of purchase	Lui CS

TOTAL: HK$230,000

Funding: One-off STEM Grant (HK$ 200K) + Additional 30K from AC Committee *(STEAM Education 2017-2018)*