#### **Evaluation for the Use of Diversity Learning Grant / Gifted Education Programs 2016/17**

#### Gifted Education Committee 2016/2017

### Objectives

- 1. To devise systematic and strategic planning to identify gifted and talented students who possess outstanding performance or potential in some aspects and to foster their holistic development as well as their commitment to serving the community
- 2. To provide challenging learning opportunities for gifted and talented students so as to fully develop and stretch their potential in a wide range of specialist areas, including leadership, creativity, personal-social competence.
- 3. To develop school-based training programs and to support students to participate in external competitions and gifted education programs
- Note: The Renzulli's Three-Ring Conception of Giftedness and Howard Gardner's Theory of Multiple Intelligences are adopted for screening and selection of gifted and talented students through multiple channels and pathways.

### Year Plan under Diversity Learning Grant (DLG)

The activities to be carried out in the academic year 2016/2017 are as follows:

- 1. ROV Class for Inter-school ROV Competition
- 2. Strategic planning & Interviewing skills in focused professions (For S6 students)
- 3. Preparative course for Scientific Competitions
- 4. Arduino Programming course for applications
- 5. Preparative Course for Inter-school Chinese Medicine Competition
- 6. Junior Achievement Company Program
- 7. Creative English Writing Course
- 8. School Team Sports Training Camp
- 9. Preparative course for International Junior Science Olympiad (IJSO)
- 10. Faraday Challenge Day 2017 & Training Course
- 11. Subsidy for external gifted programs

## **Evaluation of Action Plan & Use of Diversity Learning Grant (2016-17)**

**Committee: Gifted Education Committee** 

	Major Area(s)	Implementation	Expenditure		Performance		<b>Results of Evaluation</b>	Person
	of Concern	Date	Expenditure		Indicators	Results of Evaluation		in-charge
-	<ul> <li>ROV Class (Remotely Operated Vehicle) for Inter-school ROV Competition To educate students about the knowledge in ROV To foster application of STEM for problem solving and development of communication skills and leadership</li> </ul>	Sept 2016 to July 2017	Materials & transportation: HK \$0	1. 2. 3.	Students' attendance is at least 80%. 80% of the participants find the training useful. The knowledge in STEM, creativity, high order thinking, communication skills and leadership of students have been enhanced.	1. 2. 3.	The student who can teach ROV was graduated and no suitable tutor was able to provide ROV course to our school. Students participated last year reluctant to join the competition and training this year so the course was cancelled. Budget allocated was shifted to other school-based courses	Gifted Education Committee (TSN, WAN)
2	<ul> <li>Strategic planning &amp; Interviewing skills in focused professions (For S6 students) To train up students' strategic planning skills &amp; self-management skills. To promote their awareness on JUPAS</li> </ul>	Nov 2016 to Dec 2016	Training course: (7.5 hours) HK\$7,500	2. 3.	focused study at one JUPAS choice. Students have prepared for	1.	The student survey reflected that 100% of the participants found the course useful and they agreed that the course helped them understand better about their strengths and weaknesses, career choices and the strategy of assigning JUPAS choices, and had equipped them with practical interviewing skills through Mock Interview and Self-Introduction. The students performed well in the Mock interview. They prepared suitably for the interview and the interviewing skills like keeping good eye contact, speaking smoothly and confidently, showing	Gifted Education Committee (MHM, KCH)

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<ul> <li>choices of selection.</li> <li>To train up students' interviewing skills in focused professions</li> <li>3. Preparative program for Scientific Competitions</li> <li>To prepare biology students to cope with the questions of the Biolympiad Competition.</li> <li>To train up students' analytical skills and problem solving skills</li> </ul>	October 2016 to November 2016	Preparative course (9 hrs) : HK\$4,050	<ol> <li>Students' attendance is at least 80%.</li> <li>Students performed well in the Biolympiad Competition.</li> <li>Scientific knowledge, and problem solving skills of students have been enhanced.</li> </ol>	3. 1. 2. 3.	courtesy and attention to other candidates were suitably exhibited. The overall attendance rate was 70%. Nine S5 students joined the preparative course and they were taught with topics not covered at school. They are also trained with answering analytical skills and problem solving skills required in the Biolympiad. Overall attendance rate is 80%. A total of twenty-three S5 and S6 students were nominated to participate in the HK Biology Olympiad for Secondary School this year. Preparative course was conducted by a tutor to equip them with all the essential biology knowledge for the olympiad. They had to complete a 1-hour multiple choice questions which were related to the HKDSE syllabus of Biology. 6C Chan Ngai Yu and 6C Wong Yuen Yi won the First Class Honor, 5C Chui Ho Yin , 6B Hung Tsun Ming Victor and 6C Lai Chin Pang won the Second Class Honor. 6B Lai Kwan Hon and 6C Poon Kin Cheung both attained the Third Class Honor. There are 6 students obtained Merit Awards. The competition was organized by HKASME in order to	Gifted Education Committee (MHM, WAN)
					promote the learning morals in studying Biology.	

4.	Arduino Programming course for applications To train up S4 & S5 students in Arduino programming related to designs and applications To learn coding language scratch as a start of learning Arduino l		mbot Basic course Fee & materials: (10 lessons, 15 hours in total) HK\$16,600 mbot inventor electronic kit (6 sets for post-exam school-based course) HK\$6,528 Total: 23,128	<ol> <li>Students' attendance is at least 80%.</li> <li>Students' attendance is above 3 the attendance of \$1 students a the attendance of \$1 students a 2. All students find the course cointeresting and useful for start use coding to control mbot rob 3. mbot course allowed students to coding language "Scratch" wh compatible with Arduino. The preparative learning experience students to learn Arduino later.</li> <li>A task was assigned to student lesson and students had to code commands needed to complete</li> <li>Creativity skills and high order skills of students have been</li> </ol>	re 100%. ntent learner to ots. o learn the ich is is was a e for s in each e for the task. thinking
5.	Preparative Course for Inter-school Chinese Medicine Competition	July 2016 to July 2017	Training course: HK\$12,925	<ul> <li>Students' attendance is at least 80%.</li> <li>80% of the participants find the courses useful.</li> <li>The knowledge in Chinese Medicine &amp; high order thinking skills of students have been enhanced.</li> <li>The knowledge in Chinese Medicine &amp; high order thinking skills of students have been enhanced.</li> <li>1. Five students entered the semi-fin Hong Kong Secondary School Cl Medicine Competition organized</li> <li>2. A strong team spirit was successficultivated. The two S4 students is responsibility and outstanding lease They provided excellent mentors S1, S2 and S3 members. They we good collaboration and studied has revising the Chinese Medicine krifts they also set questions to challer other and rehearse for the quiz set It greatly helped them to grasp the professional knowledge quickly.</li> <li>3. They dedicated great effort to premicrofilm to display their researce</li> </ul>	hinese by HKBU. fully howed high dership. hip to the orked in ard on lowledge. ge each veral times. e pare for the

					<ul> <li>specific Chinese Medicine topic. Their</li> <li>knowledge and interest in Chinese Medicine</li> <li>were significantly enhanced, also their</li> <li>creativity, organization and various high</li> <li>order thinking skills were properly fostered.</li> <li>4. Overall attendance was over 90%.</li> </ul>
6. -	Junior Achievement Company Program 2016 To train up S4 & S5 students to participate in Junior Achievement Company program	July 2016 to Dec 2017	Training course and transportation: HK\$0	<ol> <li>The students successfully designed and implemented their own business.</li> <li>The management, leadership, problem solving skills and confidence of students had been enhanced.</li> </ol>	<ol> <li>Students successfully set up their own business and sold their products in school and at the trade affair.</li> <li>Students benefited from the program by experiencing the process of starting up a business and the management of a company. The leadership, problem solving skills were much enhanced.</li> <li>Gifted Education Committee (MHM, KCH)</li> </ol>
7.		November 2016 to March 2017	Training course: HK\$6,250	<ol> <li>Students' attendance is at least 80%</li> <li>Students show ability to appreciate English Literature and write poems or other creative writing products</li> </ol>	<ol> <li>This one of a kind tailored-made English Creative Writing program had been exclusive for STGSS senior form students. Through intensive 8 weeks training, our students were able to produce high standard prose. It covered the range from fiction to creative non-fiction. Through observation of their open presentation, the creativity, observation, communication skills and English proficiency of students were greatly enhanced. Their motivation and interest in studying English literature were also emerged. Attendance was over 70%.</li> </ol>
8.	School Team Sports Training Camp Gifted Education for School Team Members – Generic skills,	June 2017 – July 2017	Camp fee: HK\$13,088 Transportation: HK\$2,200 Total: 1,5288	<ol> <li>At least 80% students can finish the training successfully.</li> <li>80% of the participants find the camp useful and meaningful.</li> </ol>	<ol> <li>Twenty S4 and S5 students joined the training camp</li> <li>Students had leadership training and problem solving tasks assigned to complete.</li> <li>Collaboration skills and communication skills have been enhanced through participating activities in the camp.</li> </ol>

	especially collaboration skills, communication skills, problem solving skills, creativity & high order thinking				The collaboration skills, communication skills and the problem solving skills have been enhanced. Improvement of Teamwork	4.	The attendance was over 80% and around 80% of the participants find the learning experiences useful and nearly half of the participants had intension to take up leading posts in the next academic year.	
9.	Preparative course for International Junior Science Olympiad (IJSO) To prepare students for International Junior Science Competition (IJSO)-Hong Kong Screening Test To train up students' problem solving skills and critical thinking skills	February 2017 to July 2018	Course fee: \$0 Materials: HK\$ 210 (By SCBG)	3.	Students' attendance is at least 80% 80% of the students passes the mock test Students are confident about the IJSO screening test Scientific knowledge and problem solving skills of students have been enhanced	1.	The preparative course was conducted by teachers of our school during the summer in 2016. Twenty-five students participated in the preparative course and attendance is near 90%. Six students with the best results in IJSO training course and in the mock test were selected to join the IJSO Hong Kong Screening 2016-17.	Gifted Education Committee (MHM, WAN)
10. - -	Faraday Challenge Day 2017 & Training Course To co-organize Faraday Challenge Day for the education of STEM To foster development of creativity,	April 2017 to May 2017	Course fee: \$0 Enrollment fee: HK\$500 (ECA)	<ol> <li>1.</li> <li>2.</li> <li>3.</li> </ol>	Students' attendance is at least 80%. 80% of the participants find the competition and workshop interesting and useful The knowledge in STEM & high order thinking skills of students have been enhanced.	1.	Four other government schools, five teams in total, were invited to take part in Faraday Challenge Day at Queen Elizabeth School on 13 May, 2017. Our school also nominated a team of six S.2 students. All participants had to use limited amount of token to buy some materials for making a communication prototype to be used in an adverse weather condition. Our students learned the importance of team work, communication skills, scientific knowledge and mathematics application. They won the	Gifted Education Committee (MHM, WAN)

<ul> <li>collaboration,</li> <li>To inspire students about their career planning in Science and Engineering</li> </ul>				second place in competition. Feedbacks from the judges and participants were promising.	
<ul> <li>11. Subsidy for external gifted programs (including STEM – related programs)</li> <li>To subsidize students enrolled in gifted education programs offered by local tertiary institutes or external organizations.</li> </ul>	July 2015 to July 2016	Materials and Transportation: HK\$2,3372	<ol> <li>The students have completed the subsidized courses.</li> <li>Students are able to reflect on their learning and aware of the benefits from the courses.</li> <li>Students share their learning experience with schoolmates.</li> </ol>	<ol> <li><u>HKUST Dual Program</u> Five students completed Dual Program offered by HKUST. 6A Cheung Tin Hang obtained A+ in Physics Level 2. 4C Chan Hok Tsun obtained an A and 3D Ying Wai Yeung obtained A+ in Mathematics Level 1. Both of them were nominated to study the course in the Level 2 Mathematics next year.</li> <li><u>Digital Movie Maker Course</u> This was a new course jointly organized by Extra-Curricular Activity Committee and Gifted Education Committee. The 8-hr course recruited 13 club or team student committee members to learn how to make digital movie and edit movies to produce different visual effect. The feedbacks from students were positive and they all found the skills learnt very useful.</li> <li><u>Basketball Team Building and Leadership Training Summer Program</u> About 20 basketball team members and potential participants were selected to participate in the summer program. A coach was hired to provide intensive basketball skill training as well as team building and leadership training was</li> </ol>	Gifted Education Committee (all members)

infiltrated in the program.
<ul> <li>4. <u>Physics Olympiad 2017</u> 3D Ying Wai Yeung was enrolled to participate in the "Hong Kong Physics Olympiad 2017". They attended the competition on 14 May 2017 afternoon at Hong Kong University of Science and Technology.</li> </ul>
<ul> <li>5. Secondary School Mathematics and Science Competition organized by PolyU 13 students joined the competition. Students talented in both Mathematics and Science were selected. They showed enthusiasm in both preparing and participating the competition. 5C Heung Pak Ki had won Medal Award in Chemistry category</li> </ul>
6. The Shaw Prize Lecture in Life Science and <u>Medicine 2016</u> Thirty-one students from 4B attended the Shaw Prize Lecture in Life Science and Medicine 2016 on 22 September, 2016. Professor Chan Ho Yin Edwin and Professor Chan Ting Fung from the School of Life Sciences of the Chinese University of Hong Kong spoke on the topic "Genetic Studies of Rare Diseases". The seminar was well-received and the students found it enlightening and the feedback was positive.
7. <u>來自星星的燈塔 - 與衛星導航系統科學</u> 家徐穎對話

Twelve students from 4C and 5C attended the talk "來自星星的燈塔 - 與衛星導 航系統科學家徐穎對話" by Dr. Xu Ying on 13 September, 2016. Dr. Xu Ying introduced the satellite navigation system of China and shared her life as a researcher in the Academy of Opto-electronics of the
Chinese Academy of Sciences. A Q&A section was held and positive feedbacks were received from students attended.
8. <u>Innocarnival 2016</u> 72 students from S2D and 4C had visited the Innocarnival held in the Science Park on 2 <sup>nd</sup> November. This year's theme is "Smart Living" Students had been registered to attend a chemistry experiment workshop and a coding workshop. It was an educational and interesting event and students participated enthusiastically in seminars, talks, guided tour, competitions and workshops. All students agreed that the activity broaden their understanding on STEM education in Hong Kong.
<ul> <li>9. <u>School-Based Gifted Education Interflow</u> <u>and Exhibition</u> Three members of the Science and Technology Ambassadors volunteered to promote school-based gifted education in setting up a booth in the School-Based Gifted Education Interflow and Exhibition on 17 December 2016. Students were able to share with visitors the promising achievements of our school-based gifted</li> </ul>
education programs. The students' performance was much appreciated by the

organizer.
10. CUHK Popular Science Talks
(A) Amazing Molecules that Changed the
World for S.4 and S.5
(B) From scientific investigation to fields –
the case of soybean research in Hong
Kong (從科學探究到農田- 香港大豆
研究的個案) for S2C and S2D.
Famous scientists were invited to deliver
the above talks to arouse students' interest
to indulge their career in science
11. <u>The Earthquake Detector Design</u>
Competition
Five students from S4 joined the
competition. The competition was
organized by Faculty of Engineering, The
University of Hong Kong (HKU), Hong
Kong Observatory (HKO), and Hong Kong
Meteorological Society (HKMetSoc), and is
supported by the HKU Knowledge
Exchange Fund. It aims to enrich students'
knowledge in both engineering and
meteorology.
Our students obtained the Most Effective
Earthquake Detector Award.
La inquake Detector Award.
12. Budding Scientist Award
Three students of S3, Ying Wai Yeung,
Leung Hau Sang and Lam Hoi Fung, joined
the competition of Budding Scientist
Award. In the first round, they had to
carry out scientific investigation and
complete a scientific report as well as make

an interview with a local scientist and write
a report on the interview. They were
successfully entered into the semi-final
which was held on 29 April 2017. They
then prepared a booth and presented their
scientific investigation and answer
questions from the judges. All students
enjoyed doing the whole project and they
learned a lot about scientific investigation.
13. <u>HKU Junior Science Institute</u>
Two S4 students were nominated to
participate in courses provided by the HKU
Junior Science Institute for the courses. The
students found the courses inspiring and
stimulating and using in enriching their
knowledge.
14. John Hopkins University CTY Programme
Four student joined the John Hopkins
University CTY Programme.
Through learning with elite students from
other secondary schools, it broadened his
horizons. The program was challenging and
enriched his knowledge in application of
Mathematics in problem solving.
15. Australia National Chemistry Quiz 2017
Thirty-three S.3 to S.6 students participated
in the Australia National Chemistry Quiz
2017.
16. The Third "Make 24" Maths Competition
<u>(合 24 數學比賽)</u>
Four students from S1 to S3 were

nominated to participate in the mathematics	
competition. One student, 2C Lam Ho,	
obtained a Silver Award, two students 1D	
Lin Wai Keung and 3C Lam Hoi Fung,	
obtained Merit Awards.	
17. Australia Big Science Competition (HK	
Section ) 2017	
Eleven students from S1 to S4 were	
nominated to participate the Big Science	
Competition held on 8 July 2017. Students	
were required to complete a 1-hour test and	
chances would be given to students with	
extraordinary results to compete with other	
students overseas.	
18. <u>6th Model Solar Boat Challenge</u>	
Five students were selected to participate in	
the inter-school competition "6th Model	
Solar Boat Challenge" at Arts &	
Technology Education Centre (ATEC) on	
5/7/2017 (Wed). The students had acquired	
engineering skills to perform various tests	
to optimize the speed of their model solar	
boats. They were inspired to apply physics	
knowledge in the competition.	
19. Program for the Gifted and Talented 2017	
(by Faculty of Education CUHK)	
2B Chim Ho Yin have been successfully	
accepted by the institute to take the courses	
"Rethinking School Mathematics: What the	
Textbooks Don't Tell Us", "Exploring the	
Universe" and Understanding Chemistry	
from Principle to Experiment" 1B Siu Cho	
Shing was offered the course "Exploring the	
Universe".	
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					<ul> <li>20. <u>Interschool Fencing Competition</u> This year around 15 students participated in the Interschool Fencing Competition in post-exam period. The venue is far from school and students had to bring heavy fencing gears. Travel fee were subsidized by Gifted Education Committee.</li> <li>21. <u>Sharing in Morning Assembly</u> Students participating in Leadership Training Program, High School Science Camp and various competitions were invited to share their experience in the Morning Assembly.</li> </ul>	
<ul> <li>12. Miscellaneous</li> <li>To subsidize the transportation from school to airport for students joining the High School Science Camp</li> </ul>	July 2017	Transportation: HK\$0	1.	Students are able to reflect on their learning and aware of the benefits from the courses. Students share their learning experience with schoolmates.	High School Science Camp 2017 Ten S4 students participated in the High School Science Camp organized by the Hong Kong Student Activity Committee. They had an opportunity to stay in the campus of Tong Ji University in Shanghai and visit the centers of science and technology development, Science Park and laboratories. Students were benefited by making new friends with students from mainland China and widening their horizon on the science development trend in China.	Gifted Education Committee (TSN, MHM)

# **Gifted Education Committee-Use of Diversity Learning Grant** <u>Financial Report 2016-2017</u>

Summary:	
Item 1: ROV Class for Inter-school ROV Competition	\$0
Item 2: Strategic planning & Interviewing skills in focused professions	\$7,500
Item 3: Preparative course for Scientific Competitions	\$4,050
Item 4: Arduino Programming course for applications	\$2,3128
Item 5: Preparative Course for Inter-school Chinese Medicine Competition	\$12,925
Item 6: Junior Achievement Company Program 2016	\$0
Item 7: Creative English Writing Course	\$6,250
Item 8: School Team Sports Training Camp	\$15,288
Item 9: Preparative course for International Junior Science Olympiad (IJSO)	\$0
Item 10: Faraday Challenge Day 2017 & Training Course	\$0
Item 11: Subsidy for external gifted programs	\$23,372
Miscellaneous	\$0
Reserve	\$1087
	Total: \$93,600