

6. Technology Education

6.1 Computer Department

Mrs. CP Ho

In the Technology Key Learning Area, the Computer Department aims to provide students with a body of essential knowledge and concepts related to the application of information, communication and computer systems. We offer the following curricula at different levels to students.

- Information Technology (IT), a school-based curriculum which is compulsory for all students in S.1 - S.3
- Information and Communication Technology (ICT), an HKDSE elective subject for S.4 - S.6 students

Our S.6 students achieved excellent results in the HKDSE 2019 ICT examination. 27.2% attained 5** and 54.5% attained Level 5 or above. As a reference, 0.9% and 9.7% of all candidates in Hong Kong scored 5** and Level 5 or above respectively.

Our junior secondary IT classes continued to adopt a split-class arrangement to facilitate the large number of practical activities that encompass our task-based approach. Students in each class were divided into two groups and had lessons simultaneously in two Computer Rooms. The school-based IT curriculum was continually revised to keep it up-to-date, to better cater for students' needs and to provide a stronger interface with the senior secondary ICT curriculum.

In recent years, the major concern of our Department is to promote STEM education in alignment with the worldwide education trend of equipping students to meet the changes and challenges in our society that is undergoing rapid economic, scientific and technological developments. In the last academic year, our strategies included the following:

(1) Incorporating more programming and robotics elements into our IT curriculum.

Two new modules were added. The "Become a Maker" module in the S.2 IT curriculum aims to train up students' design thinking skills and problem-solving skills using robots, sensors and programs. The "Creating 3D and VR Animations Using Unity" module in the S.3 IT curriculum aims to let students develop their own 3D computer games.

(2) Organizing more STEM-related activities inside school

The Computer Club organized general meetings about 3D printing, video editing using Adobe Premiere and AfterEffects, and Python programming. Visits to Sino's Inno Lab, and the MakerLab and the Visualization and Multimedia Lab of HKU Computer Science Department were arranged. The number of Computer members has increased by 47% and the majority of members enjoyed the club activities.

The DGS Programming Team added a training course of Python programming in addition to the usual training courses of Pascal and AppInventor programming. A majority of participants enjoyed the Python course and found it useful.

(3) Collaborating with other stakeholders like DGJS, DGS alumni and EDB to promote STEM

On 20th June 2019, Miss PML Cheung, Mrs. PS Tong and Mrs. CP Ho shared "A Holistic Approach to Promoting STEM Education - Diocesan Girls' School" in the "Sharing Seminar on the Major Findings of Inspection Annual Report (2017/18) and the Dissemination of Good Practices in Secondary Schools" organized by the Quality Assurance and School-based Support Division of the EDB.

On 3rd July 2019, the Computer Club, the DGS Programming Team, the Mathematics Team, and the Electronics and Robotics Team co-organised the STEM Activity Day for DGJS P.4 students. Each team

prepared fun and engaging activities to showcase the wide-ranging capabilities of different aspects of STEM. All DGJS participants enjoyed the activities.

(4) Joining more STEM-related activities outside school

All students of S.4 ICT class participated in the CUHK 55th Anniversary AI in Engineering Conference. They attended the talk “Computer Vision AI – Face Recognition, Self-driving Car Perception and Beyond” by Prof. Hongsheng Li, and visited the “AI and Robotics Laboratory” of CUHK.

A team of four students were chosen to represent the Hong Kong Delegation to participate in the 47th International Exhibition of Inventions in Geneva, Switzerland. The exhibition, the largest of its kind in the world, featured more than 700 inventors from 45 countries. After five days of showcasing their app invention, the team was awarded the Gold Medal by the National Research Council of Thailand and the Silver Medal in the Exhibition of Inventions category.

Two S.5 students attended the Internet Governance Forum (IGF) in Paris, France along with four other winners of the iFocus competition organized by the Chinese YMCA of Hong Kong. The Internet Governance Forum is an annual international summit held by the United Nations to gather people from around the world to discuss the use and governance of the internet.

In August 2019, two teams of three students each joined the InnoSTEMer Camp 2019 organised by AiTLE, and learnt about design thinking, coding, 3D printing, laser cutting, robotics, VR/AR, etc. Both teams attained “Best Startup Team” awards and one of them also attained the overall “Silver Award”.

The number of external STEM-related competitions taken part by students increased from thirteen (2017-2018) to nineteen (2018-2019). Very good to excellent results were attained in many of these competitions.

Competition	Organizer	Awards
47 th International Exhibition of Inventions of Geneva	Inventions Geneva	Gold medal of the National Research Council of Thailand and Silver medal of the Exhibition of Inventions: team comprising Chui Nok Yan Yannis, Kwok Hiu Lam Selina, Song Xiuxuan, Liu Tin Nam
Hong Kong ICT Awards Student Innovation Category	Office of the Government Chief Information Officer of the Innovation and Technology Bureau	Silver Award: team comprising Chui Nok Yan Yannis, Kwok Hiu Lam Selina, Song Xiuxuan, Liu Tin Nam Certificate of Merit: team comprising Ip Ting Chi Tiffany, Lam Sze Yin Cecilia, Wong Charlotte Loc Heng, Looi Nga Laam
iFocus@2018	The Chinese YWCA of Hong Kong	Second: team comprising Chong Ling Yan Bella, Fong Yuet Ning
App Jamming 2019	First Code Academy	Grand Prize & Winner of Secondary Division: team comprising Chui Nok Yan Yannis, Kwok Hiu Lam Selina, Song Xiuxuan, Liu Tin Nam
Hong Kong Olympiad in Informatics (HKOI) 2018/19	Hong Kong Association of Computer Education and EDB	Junior Group: Bronze Medal: Ng Hannah Finalists: Chan Tsz Ching, Ip Tsz Oi, Kung Mei Han, Ng Hannah, Zhu Kezhen Senior Group: Finalists: Ng Sze Mai

Competition	Organizer	Awards
Canadian Computing Competition (Hong Kong Contest) 2019,	Department of Computer Science, University of HK	Junior Division: Certificate of Distinction: Chan Tsz Ching, Ip Tsz Oi Certificate of Merit: Choi Ching Lam, Ng Sze Mai, Ng Hannah Honorable Mention: Tam Hoi Yan
Computer App Programming (CAP) 2019	The Hong Kong Association for Computer Education	Junior Secondary Section: Champion: Chan Tsz Ching
Bebras Hong Kong 2018	STEM in Action	Grade 7-8 top 10%: 27 S.1 & 33 S.2 Grade 9-10 top 10%: 41 S.3 & 2 S.4 Grade 11-12 top 10%: 1 S.5
Samsung Solve for Tomorrow 2018	Samsung	Creative Idea Award: team comprising Ip Ting Chi Tiffany, Lam Sze Yin Cecilia, Wong Charlotte Loc Heng, Looi Nga Laam, Tang Sin Kiu
The 5 th Microsoft Office / Adobe Creative Cloud Skills Competition 2018	AiTLE, Welkin & Microsoft	Certificate of Pass: Word: Looi Nga Man, Lau Wing Yi Excel: Liu Tin Nam, Mung Hoi Yan Celine Powerpoint: Tsang Sum Yee
Respect Our Teachers Microfilm Competition 2018	Committee on Respect Our Teachers Campaign	Merit Award: team comprising Chan Wing Yin Yanni, Wong Hoi Wing Angelina, Wong Charis Lorraine, Wong Wan Chun Ashley, Liu Tin Nam, Ng Tsz Ching Alexia, Heung Ching Tung, Lau Choi Yu Elise
全港微電影創作大賽	宗教教育中心	Second (Silver Award): team comprising Cannon Stephanie Kate, Wong Yan Ching Grace, Chan Chung Ling Ava, Chong Pui Man Bernice, Chan Hoi Tung, Tang Hoi Ying Helen
Technovation Challenge 2019	Iridescent	Senior Group Semi-finalist: team comprising Cheng Yi Hang Niki, Chin Chi Lam Gianna, Chiu Bui Lam Pearl, Chong Tsz Ting Cassandra
Microsoft GirlSpark Infinite 2019	Microsoft & YWCA	Best Teamwork Award: team comprising Barnett Maggie Jean, Wong Ka Yu, Lau Yan Yin, Lee Hei Wan
The First Ocean Park International Conservation STEAM Competition	Ocean Park	Finalist of “STEAM Promotion” category: team comprising Chau Samantha, Cheng Rosalyn Charis, Ching Yi Ching, Chu Christina Yuui
InnoSTEMer Camp 2019	AiTLE	Best Startup Team & Silver Award: team comprising Chan Ho Lam Valerie, Ikin Jennifer Christine, Miu Kam Ying Best Startup Team: team comprising Hui Man Wah, Jim Lok Lam, Tsoi Wing Sze

To conclude this report, I wish to extend sincere thanks to the Headmistress for her continuous support and to all the Computer teachers for their professionalism and dedication throughout the year.

6.2 Technology and Living

Mrs. P. Hui

The challenge of the academic year 2018-19 was the shortening of contact hours in S1 and S3 which resulted in a need to adjust the course content as well as teaching and learning activities for junior secondary levels. The lesson arrangement in S1 and S3, from double lesson weekly to double lesson bi-weekly, resulted in a reduction of contact hours to half of what it used to be in the past. S1 students attended one lesson of FST (Home Management) and one lesson of FCT (Needlework) every alternate week. S2 students had double lessons weekly adopting a split class arrangement wherein each class was divided into two groups. As for S3, they attended either double lesson of FST or FCT once every four weeks. Many students showed their enthusiasm by working in the early mornings, during lunch hours, after school and during the school holidays. Since the lesson arrangements will remain the same next year, the department will continue to fine-tune, select and adjust the course content, teaching strategy and teaching materials to maintain its high standard and quality of work.

The hospitality and service projects have not been affected by the limitation of contact hours. The Hospitality Committee headed by Ching Hou Sze and Katie Ko as well as the chairlady and vice-chairlady of the Food Technology Club Shemaiya Ng and Rita Ng assisted tremendously during the tea reception for the Swimming Gala, Athletics Meet, Speech Day, S1 Interviews, the GBA project as well as the staff brunch and lunch on Parents' Day.

The department continued to run Chinese New Year pudding-making classes for staff and old girls. The support from the PTA, the DOGA and DGS staff in the Glutinous Rice Dumpling Charity Sale '萬粽同心為公益 2019' enabled the School to capture the title "最高籌款學校" again, raising \$98710 for the Community Chest. Cooking classes for the elderly, part of the Elderly Academy 2019 were held on 28th June, and 4th and 5th July. The department thanks S6 students Sarah Chan, Wendy Yang, Teddy Mi, Chloe Yeung and all 2U students who contributed to the success of this meaningful event. The elderly showed their appreciation as they took home the beautifully wrapped packets of chocolate and pudding. 1Z Wong Tiffany Ka Man, 1Y Fung Sze Evelyn and Yee Amanda Pei-Syin volunteered in making menstrual napkins for girls in Ethiopia in July. This new project will be introduced to more students this coming year.

3X Lee Wing Ka Vivian won the Fabric Pattern Design competition obtaining 1178 votes from girls, parents and teachers. 3X, 1Y and 3U came first, second and third respectively in the Inter-class Cooking competition as they interpreted the theme "Floral" through the dishes they prepared and presented.

4Z Heung Ching Tung Sophie won the third prize in the LCSD Hong Kong Flower Show 2019 in the Plant Exhibit Competition in the section entitled "Floral Art by School Children" Class 87 on the theme "Wits and Flowery Talks". The team comprising 3X Chiu Cheuk Yi Victoria, Choi Hoi Tung Selina and Tsui Ka Wai Bernice came second in the 6th Hong Kong "Daddy, Mummy, have a Meal!" Inter-school Cooking Competition organized by PAVAS Education Foundation Limited. 3X Chin Chi Lam Gianna was the champion in the Youreable Fashion Design 2019 Award Care and Chic Fashion Design Competition organized by The Hong Kong Polytechnic University, Institute of Textiles and Clothing. Congratulations are due to all participants for competing.

The S2 best models on runway and S3 best models for photo taking in each class include:

2U	Ikin Jennifer Christine Wong Hoi Yau Bertha	3U	Chan Pui Maan Ingrid Wong Yat Yin Janice
2W	Chan Shu Yiu Zoe Lau Ying Tung Chloe	3W	Chan Carolyn Cheuk Yi Li Wing Yan Angel

2X	Cai Huiying Quah Cheng Xi Inez	3X	Cheng Yi Hang Niki Tsui Ka Wai Bernice
2Y	Leung Ching Yeung Sum Yin Aubry	3Y	Chung Yuet Ki Toby Wong Sa
2Z	Chan Hei Pui Janice Wu Ying Qiao Winky	3Z	Chan Sze Chai Ally Leung Joanne

The subject prizewinners are 1Z Wong Ka Man Tiffany, 2W Miao Hoi Ching and 3X Tsui Ka Wai Bernice. They have performed outstandingly throughout the year.

To close, I would like to extend my sincere thanks to colleagues who have worked closely with me throughout the past forty-one years for this department, one which I have had the privilege and honour to serve as head of department for twenty-three years. To ex-department heads and long serving colleagues, Mrs. Gloria Hung, Mrs. Greta Lam, Mrs. Valerie Chan, Mrs. Maryrose Lim, Mrs. May Tsui, Mrs. Jennifer Chan and Mrs. Anissa Wong, together we have made outstanding achievement that all of us should be proud of and applaud. The support and guidance from the PTA and DOGA have enabled us to sail through the many changes and challenges. Ms. P. Ho, Mrs. Susanna Chow the OLP tutor, Mr. KL Chan and Janitor Yuk have all made remarkable contributions last year. Finally, I thank our Headmistress, Mrs. Lau, for her unfailing guidance and support.

6.3 Business and International Studies Department

Mr. A. Ebrahim

The Business and International Studies department aims to equip students with life-long skills and practical knowledge to thrive in a dynamic and complex global market.

The department's primary responsibility lies with delivering the Business, Accounting and Financial Studies (BAFS) HKDSE elective to senior school students. As its name suggests, this comprehensive subject consists of a broad array of topics, ranging from investment analysis, preparation of accounts and financial statements, to marketing skills, stock trading concepts and knowledge of our business environment. Students actively learn about the world of business and develop skills applicable to all professional walks of life.

This past year, students continued to excel in this subject. The HKDSE results for BAFS were commendable with three students receiving 5** and a further four receiving 5*. Chloe Chan and Maxine Law in S5 received the HKICPA Scholarship for Secondary Schools. Additionally, many BAFS students continued to sit and achieve excellent results in HKICPA examinations.

Activities and competitions outside of the classroom were equally important to achieving our objectives. Six S4 students joined the Consumer Culture Study Award organized by the Consumer Council; all of them received Certificates of Participation. Additionally, thirteen S5 students formed three teams to participate in the HKICPA Accounting and Business Management Case Competition; they received Certificates of Merit. The common theme across these competitions was the opportunity to apply classroom knowledge to real-life business situations and so enhance their understanding of the world of Business today.

The department strongly believes that practical experiences and self-directed learning play a crucial part in the learning of Business. To that end, S4 students participated in a Stock Market Simulation on Investopedia.com where they traded financial securities using a synthetic US\$1,000,000 portfolio via a market simulator. Furthermore, about 25 S4 and S5 girls participated in the Young Founders School

bootcamp workshop held at school where they were introduced to the concepts of entrepreneurship and specifically how to pitch an idea to prospective investors. A group of S5 and S4 girls also attended a Women Chief Executive Forum held at HSBC, where they heard from a panel of prominent Female Chief Executives in Hong Kong. Finally, a large group of S4 girls joined the StartmeupHK Festival 2019 where they met start-up companies and heard from InvestHK and their efforts to attract financing to the city. All these learning opportunities offered DGS students invaluable and authentic experiences beyond the classroom.

The success of the department would be impossible without the support of others. Firstly, Mrs. Lau has steadfastly supported our plans and been a consistent source of guidance. Mrs. M. Cheng has proven herself to be an enthusiastic member of the department, and one who can capably educate and develop the students. All our partner organizations have also provided opportunities, their time and their resources to our students, and we owe them all a debt of gratitude.