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Welcome to Salesian English School! Welcome to the world of science and mathematics! In this issue, we will show you how we inspire and equip our students in the world of **STEM (Science, Technology, Engineering and Mathematics)**! Let us share with you the happy moments of learning science in our school in the year 2017-2018. Enjoy!

## A. The Learning Environment

### 1. Our Laboratories

Welcome to our laboratories! This is where we do the experiments and some interesting workshops in science.

Physics lab



Chemistry lab



Biology Lab



Integrated Science lab



Mobile learning lab



Computer lab





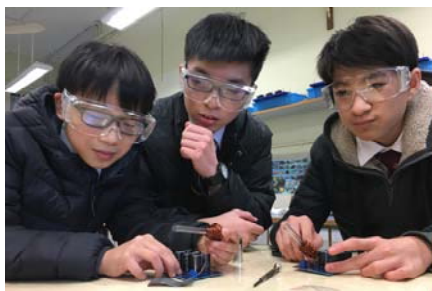
## B. Science activities

### 1. Science

To foster creativity is the key to success in science. We organised different in-house workshops and competitions for our talented youngsters. We also nominate students to external tertiary institutes for more focused learning.

#### a. Science elite programme for Junior students 初中科學尖子培訓課程

We organised Science elite programme for our junior students to foster their interests in science by doing some hands-on project and learn the theories behind.



👉 Students learned to make their Gaussian guns and test them during the workshop

#### b. Science elite programme for senior students 高中科學尖子活動

With the use of the STEM Grant, we organised a series of workshop on the making of remote-controlled vehicles with basic soldering training, together with the use of Arduino to control the vehicles. Students found it challenging and fun. The skills can be useful when they are involved in other competition or daily life situation.



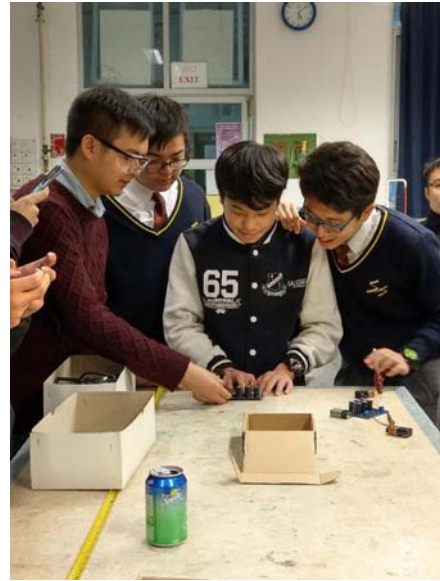
Senior form students share the joy of achievement by making their own remote controlled cars

### c. Science club and activities

We have science club with different themes (Physics, Chemistry & Biology) for our students to participate after school. Come and see!



*Water rockets competition for S2 students*



*Making use of the electromagnetic force in Science Club*

### d. Talks and visits

We also took our students to other companies or institutes to know more about how science is used in daily life. This is also served as a spark to their life planning.



*Visit to IVE STEM Education Centre under STEM taster programme*



*Science talk to our S2 students organised by CLP Company on the job as an engineer and also energy-saving knowledge*



## 2. Technology

How can we make use of technology to make our world a better place to live in? One of the ways is to let them try it out. We also extend our efforts to integrate arts into our works to explore the possibilities of STEAM (Science Technology Engineering Arts Mathematics) in a practical way.

### a. 51<sup>st</sup> Joint School Science Exhibition (JSSE) 聯校科學展覽

Every year, our senior students participated in the JSSE, a platform for all youngsters to explore their imagination and creativity to solve daily life problems with the use of science.

This year, with the theme “Reflection”, we have come up with the use of an app for household and commercial sectors. The concept of the app is to help people save energy and regulate the electrical appliances with the use of the Internet of Things (IoT) concept. With a group of zealous and committed students in science, we won **The Most Popular Booth and the Best Demonstrator**. This is the fourth time we won the Most Popular Booth in four consecutive years!



The project holders and demonstrators with teacher supervisors, Mr. Man Chi-To (far left) and Mr. Leung Tsz Chung (2<sup>nd</sup> left)



Students explain our model and concepts patiently to the visitors



Our students are making and testing the hardware needed for the exhibition



*A team of high-spirited youngsters striving excellence in science!*

### **b. WeCan X HKUST STEAM Project**



This year, we formed a joint team with PLK Choi Kai Yau School in making a device to avoid accidents of the elderly at home. In this project, under the guidance of HKUST students majoring in Engineering, our team need to identify social issues, prepare a proposal, acquire technical skills in training workshops, produce a prototype, before they compete with other teams and showcase their prototypes at a finale to be held on 6 – 7 July 2018 at Plaza Hollywood.

### **c. 3D design workshop in Visual Arts**

This year, we also tried to integrated the use of STEM in Visual Arts lessons. Our students make use of their creativity and design skills to make their own model.



*A figure designed by our S1 student (left) and the real object (middle) printed by 3D printer.*

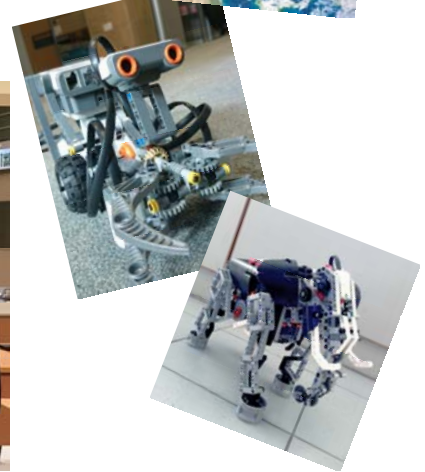


### 3. Engineering

How can we make use of technology to make our lives better? One of the ways is to make the robots to serve us. By using computer languages, we can control them to achieve our desired outcomes.

#### a. Robotics Team

Our robotics team is the main force in putting forth the STEM education. We have regular meetings after school to learn coding and setting the LEGO robots and VEX robots. We also put the coding in our computer lessons. It is good fun!



Some of our members in the Robotics Team with our teacher supervisor, Mr. Chan Kong Wei (Centre)

#### i. LEGO (WRO) 機械人比賽

This year, our junior forms students participated in the Speed Challenge (極速循環線) of the WRO and the **Gold LEGO Award!** Congratulations to them!



Our students are gearing their EV3 to their maximum performance



#### ii. RIDIY 2018 智能機械由我創

Our robotic team participated in the RIDIY and we won the **second prize** this year.



#### iii. HK Tech Challenge Game 2018 香港工程挑戰賽

Our students also participated in this game which requires more sophisticated mechanical minds.





*At school, our Robotic team is demonstrating the use of robot to solve the Rubik Cube puzzle*

## **b. Coding**

Our Programme Design Club (程式設計學會) has organised a series of workshops to our students, such as the App Inventor workshop, students can create their own apps and use it on their own mobile devices.



*Our members of the IT in the Programme Design Club*



*Our student is teaching the use of coding in writing an app*



*Our students act as tutors in the workshops for primary students*

## 4. Mathematics

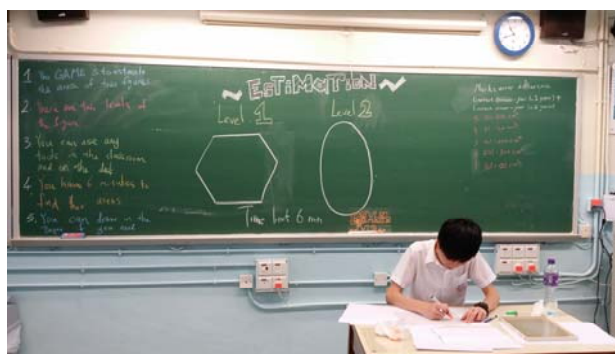
Our school has a good atmosphere in learning Mathematics. Can you imagine the joy of solving a maths puzzle?

### a. Mathematics Olympiad (奧數訓練)

We have Maths Team for students who love solving mathematics puzzles. We will participate in different competitions, such as the Best Performance in the Geometric Construction Section in HKMO (香港數學競賽), silver and bronze prizes in the Hong Kong & Macao Mathematical Olympiad Open 2017-18, and also The Hong Kong Youth Mathematical High Achievers Selection Contest (香港青少年精英數學精英選拔賽) in which we won the Third prize.

### b. The Maths week (數學周)

For the fun side, our mathematic society organised the Mathematic Week (數學周) and also the orienteering activities for S1 students, you can try the math puzzles and other booth games there.



*We have maths game stalls to let our students sharpen their problem solving skills*

### c. Learning maths & science is fun! (奇趣數理天地) (@25th November 2017)

We organised The Family Fun Day (親子同樂日) for primary students and their parents as well to promote science and maths.



*Our students shared the tricks on how to win in the game by using a mathematical mind.*

## C. Our Pride

In the course of exploring all the possibilities and challenges in the fields of STEM, our students have tried their best to demonstrate their talents and diligence. Our students have gain not only prizes, but also valuable experience. We congratulate them on their success and are proud of their achievements. We hope they can continue their quest of science when they leave the school.

### 1. 51<sup>st</sup> Joint School Science Exhibition



51<sup>st</sup> JSSE – Most popular booth and the Best Demonstrator (5C Wong Chi Yin, middle)

### 2. Our young astronaut – 5C Hoffman Tse

Our first “astronaut” Hoffman Tse, who was selected to be the representatives of Hong Kong in the Young Astronaut Training Camp (少年太空人體驗營) last summer, continued to pursuit his dream in the realm of astronomy. This year, he was enrolled to the study tour to Beijing and Xi’an.



### 3. The Academy of Sciences of Hong Kong Distinguished Master Accomplished Students Mentorship Programme (名師高徒) -- 5C Huang Ka Ho

The programme is organised by the Academy of Sciences of Hong Kong (港科院) which aims to provide a valuable opportunity for students who are interested in the field of science and engineering. Participants can learn from distinguished scholars in related field and only 100 students are selected for such a privileged opportunity. Our student, Huang Ka Ho has the honour to be one of them.

Huang Ka-ho (right) said that the programme widened his horizon in the field of science



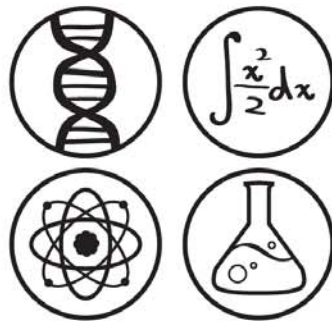
## D. List of awards with students

Items 項目	Achievements 成就	Students 獲獎同學
<b>51st Joint School Science Exhibition</b> 第 51 屆聯校科學展覽	<b>Most popular booth (4 consecutive years)</b> 最受歡迎攤位 (連續四年) <b>Best Demonstrator</b> 最佳示範員	負責人/Project holders : 5B 陳志壘 5C 許劭承 5C 丁柏希 5C 黃智言
<b>Robotics Intelligence and Digital Media DIY 2018</b> 智能機械及數碼媒體由我創 2018	<b>Second Prize</b> 二等獎	5C 何紀樂 5C 黃俊熹 2A 廖東權
<b>World Robotics Olympiad 2018</b> 世界奧林匹克機械人競賽	<b>Speed Challenge Golden Lego Award</b> 極速循線 – 金樂高獎	2A 楊皓濤 2B 何梓灝 2C 陳冠誠
<b>Hong Kong &amp; Macao Mathematical Olympiad Open Contest 2017-2018</b> 港澳數學奧林匹克公開賽 2017-2018	<b>Silver prize</b> 銀獎	2A 張貿景、5D 林子軒 5D 潘振昌、5D 黃皓亮
	<b>Bronze prize</b> 銅獎	2A 李凱量、2A 吳澤宇 5D 陳煒豪、5D 鄭守本 5D 許俊星、5D 吳明橋 5D 葉星佑
<b>The Hong Kong Youth Mathematical High Achievers Selection Contest</b> 香港青少年精英數學精英選拔賽	<b>Third prize</b> 三等獎	2A 張貿景 3A 施楓茗
<b>Hong Kong Mathematics Olympiad (HKMO)</b> 香港數學競賽	<b>Best Performance Certificate</b> 團體最佳表現獎	5C 李祉呈 5D 陳煒世 5D 吳明橋 5D 王銘俊
<b>Chemists Online “Self-study Award Scheme 2018</b> 「化學家在線」自學獎勵計劃 2018	<b>Diamond</b>	5C 黃嘉浩, 5D 許世龍
	<b>Platinum</b>	5C 黃智言
	<b>Silver</b>	5D 李昊璋
	<b>Bronze</b>	5D 陳煒世
<b>WeCan X HKUST STEAM Project</b>	<b>Participating team</b>	4D Ng Kwan Ho 4D Lau Lok Ngai 4E Chan Ivan

Items 項目	Achievements 成就	Students 獲獎同學
<b>Hong Kong Association for Science and Mathematics Education</b> <b>Hong Kong Biology Literacy Award (2017-18)</b>	<b>Second Class Honours</b>	6D Hui Yik Man
	<b>Third class honours</b>	6D Chan Ho Ting
	<b>Merit</b>	6D Tsang Ching Wai 6D Fong Tsz Nok
	<b>Active participation</b>	6D Chan Lok San 6D Ho Wai Yin 6D Chew Kwok Hei 6D Yung Kwok Chen 6D Sze Hong Tang
<b>The Academy of Sciences of Hong Kong -- Distinguished Master Accomplished Students Mentorship Programme</b> 港科院 -- 名師高徒計畫	<b>Participant</b> 參與者	5C 黃嘉浩
中國航天之旅 2018 北京、西安 航天科技考察團	<b>Participant</b> 參與者	5C 謝皓民

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- Robotic Team
- JSSE sub-committee
- Programme Design Club
- Academic Affairs Committee



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