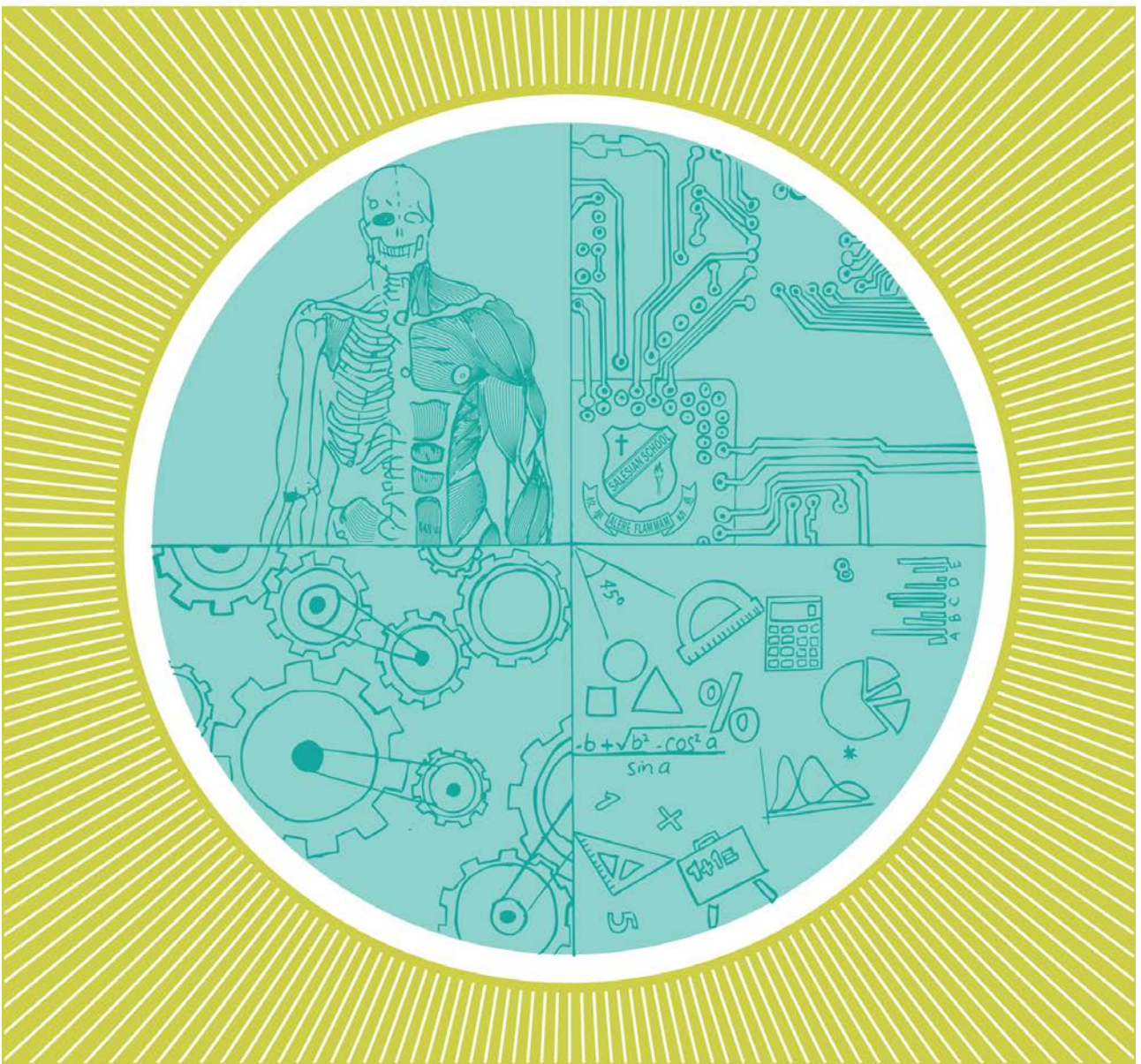


SCIENCE

@ SALESIAN

Vol.3



Our school	P. 3-4
Science	P. 5-6
Technology	P. 7-8
Engineering	P. 9-10
Mathematics	P. 11
Our pride	P. 12-14

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 2016-2017. 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

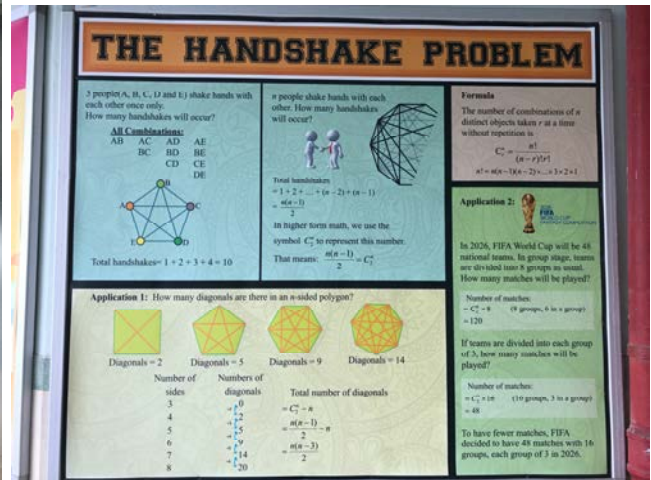
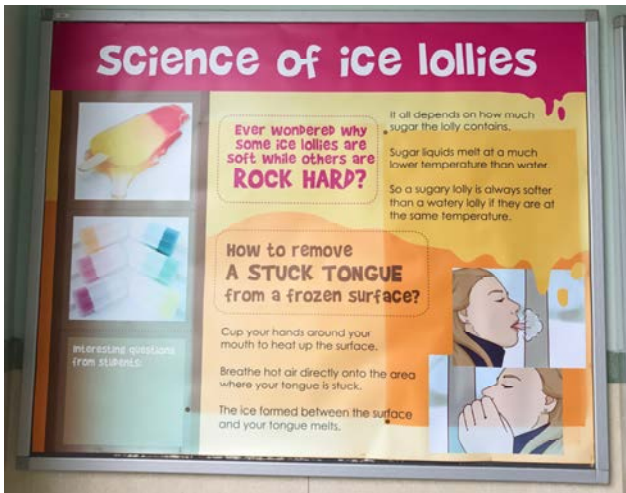


Computer lab



2. Campus

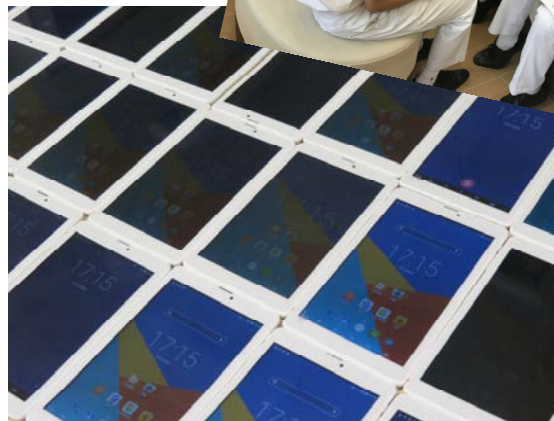
You can also find some interesting facts about science and maths in our campus. Do you know the answers?



3. Hardware

In order to support our STEM activities, we purchased different mobile learning devices facilitate learning. The students like to use them in their learning too.

Students can use mobile devices in library for doing research



4. SS Discovery Channel

Our science teachers also prepare some video clips on interesting science for self-directed learning. Visit our website: <http://www.sshk.edu.hk/> or scan the QR code on the right.



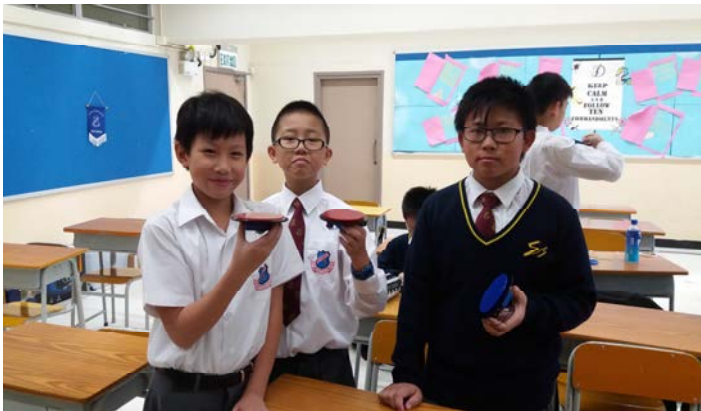
B. Science activities

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 the Academy for Gifted Education (資優教育學苑) for more focused learning. Our students enjoy them a lot and they also get good results!

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 with their designed products during the science elite programme

b. DLG programme for senior forms 高中科學尖子活動

With the use of the Diversified Learning Grant in our Gifted Education Programmes, we organised activities for our senior science elites, such as the overseas field trip to Taiwan.



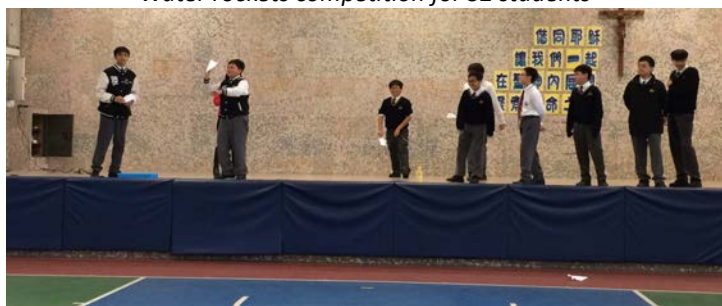
Our students reflect on how high-technology in Hong Kong can go from the experience in Taiwan

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



Lunch time paper plane competition for S1 students



Using mechanical arm to perform tasks

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 a Chinese medical company



Science talk on the making of solar vehicle by the researchers in the City University of Hong Kong



Science talk to our S4 students on fluorescence science by the teacher from the HKUST during Diversified Learning Day (front row, 2nd left)

2. Technology

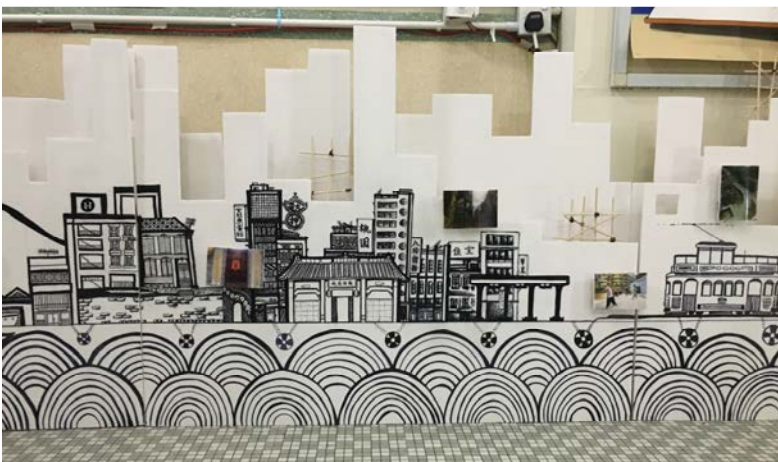
How can we make use of technology to make our world a better place to live in? One of the ways is to let them try it out. This year, we extend our efforts to integrate arts into our works to explore the possibilities of STEAM (Science Technology Engineering Arts Mathematics) in a practical way.

a. HK Arts Festival – 香港藝術節—聲光會影

With our efforts and achievement in our students in science, we are invited by the Hong Kong Arts Festival to participate in an experiential program this year. We experimented on the use of technology in our art work, which also blended with the history of our school and Shau Kei Wan community. We are honoured to have the world renowned artist, Jen Lewin, to our school and conduct a mini-workshop to our students. Our art work was also displayed in our school for public viewing.



Our participating students and their artwork with American artist, Jen Lewin (centre)



The artwork integrates the element of Shau Kei Wan



Students can interact with the artwork to produce different lighting effects.

b. 50th 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 “Community”, we have come up with the intelligent bus system “**Infomnibus**”. The concept is to help passenger in their decision making by knowing the seat availability and if the bus is overloaded. With a group of zealous and committed students in science, we won **The Overall 1st runner-up** and the **Most Popular Booth**. This is the third time We won the Most Popular Booth in three consecutive years.



The model of our Infomnibus system



The project holders with teacher supervisors, Mr. Man Chi-To (far left) and Mr. Leung Tsz Chung (far right)



Students explain our model and concepts patiently to the visitors



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

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, we sent our S1 students participated in the Speed Challenge (極速循環線) of the WRO.



Liu Tung Kuen (Left) and Yeung Ho Tai (Right) from S1 first joined the competition to broaden their horizon.



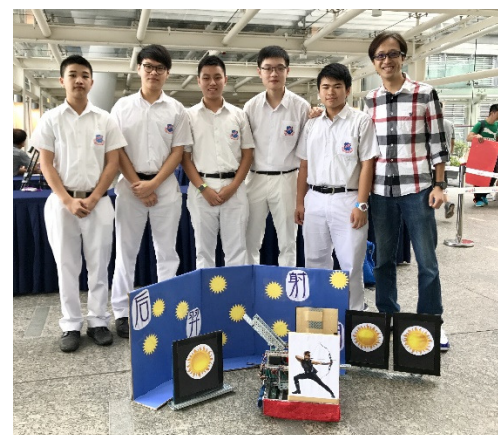
ii. RIDIY 2017 智能機械由我創

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



iii. VEX robot 中大科技顯六藝比賽

The VEX robots are more versatile and require more mechanical knowledge other than coding. Our robotic team won the third prize in the area of “shooting” (射) in a competition organised by the Chinese University of Hong Kong.



iv. Mini-robots 微型機械人比賽

We have a lunch-time competition in our school and select the best students to form two teams for the open round competition organised by the HK New Generation Cultural Association in the Science Park. We won the **1st prize** and **2nd prize** in the competition this year.



Our junior students showed good team spirits in designing and assembling the mini-robots for competition

b. Coding

This year, 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 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 HKMO (香港數學競賽), IMO-HK pre-lim (國際數學奧林匹克香港選拔賽), and Hong Kong Mathematics Creative Problem Solving Competition (香港數學創意解難比賽) in which we won the silver prize.

b. The Maths week (數學周)

For the fun side, our mathematic society organised the Mathematic Week (數學周), 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)

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 how to win in the game by using mathematical mind.

C. Our Pride

2016-2017 is a fruitful year for our STEM activities, our efforts pay and we won some competitions. This is a recognition of our efforts in working hard in the direction of science and mathematics. You can also visit some of the mass media coverage on our activities.

1. 50th Joint School Science Exhibition



50th JSSE – Overall 1st Runner up and Most popular booth



Source: e-zone issue no. 995 (7/9/2017)



擠迫偵測：「指南·巴」

長時間等巴士後，才發現巴士無位，無奈的心情大家也有試過。慈幼英文學校的同學便想到，在巴士坐椅加裝壓力感應器、車廂天花加裝紅外線，分別用以偵測坐位及企位使用量，再將信息傳至乘客手機，讓乘客可預先決定是否繼續等待巴士。同學們更會為巴士加裝無線射頻，偵測巴士位置，得知更準確候車時間。

2. Hong Kong Arts Festival

外國藝術家到訪 校園解構光影科技
晴報 18/5/2017

慈幼英文學校學生自製裝置藝術 連結筲箕灣區歷史
經濟日報 15/3/2017

學生 STEM 融入裝置藝術
明報 9/3/2017



3. Minecraft work by our students

公教報 25/6/2017 慈幼英文學校舊生 五年砌出虛擬校園



【沙盒遊戲砌母校】有齊柏蕙操場投影器

中學生花五年砌虛擬校園

香港 01 26/4/2017



超熱血！中學生花 5 年實現夢想 用 Minecraft 砌出母校

GoTrip 31/3/2017



4. Our young astronaut – Hoffman Tse

One of our students, Hoffman Tse, was selected to be the representatives of Hong Kong in the Young Astronaut Training Camp (少年太空人體驗營) this summer. He was able to visit the launch centres and met the astronauts in China. Now, Hoffman would like to share his dream with you.



This summer, my dream has finally come true. It is because this is not an ordinary exchange but a camp that is representing all Hong Kong students and Salesian boys to learn about the latest aerospace facilities in China.

During these days, I joined lots of activities to experience astronauts training, the state-of-the-art space technology and facilities. Every mission that the astronauts successfully did in space had been trained for over a thousand times on the ground before. That reminds me of the proverb "Practice makes perfect".

All I experienced in this trip let me know that technology is moving at high speed and I can witness the national achievement. It is my pleasure to visit the best facilities and exchange with the smartest researchers in China. It is also a great opportunity for me to make friends with those have the same thoughts. I do want to share to you all, "Chase after your dream with all your hearts and you will succeed one day!"

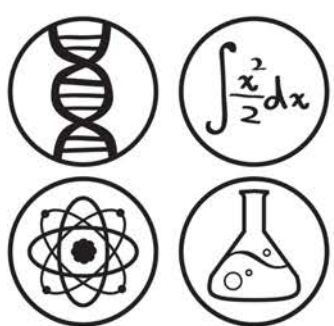
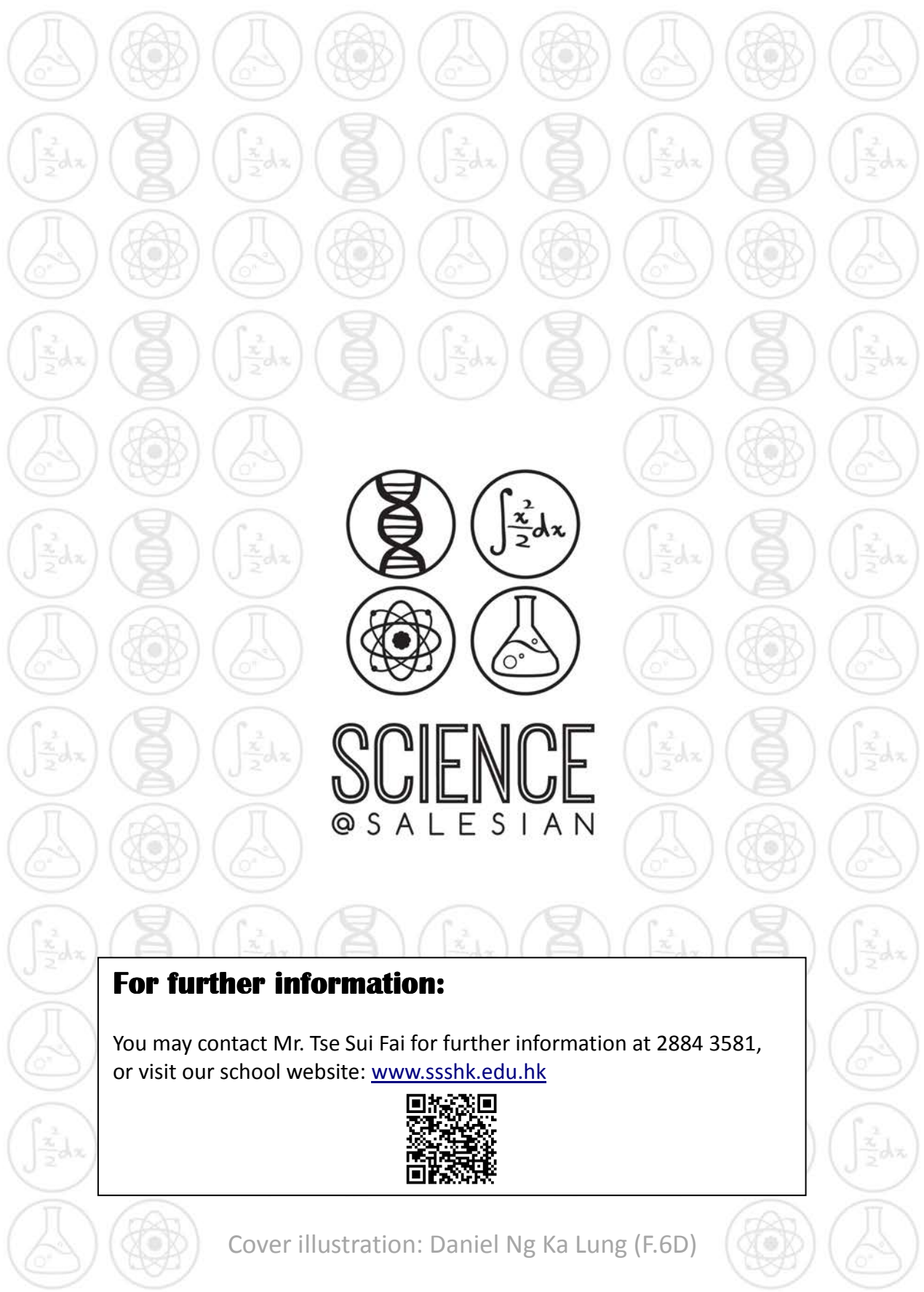
Hoffman Tse (4C)

D. List of awards with students

Items 項目	Achievements 成就	Students 獲獎同學
50 th Joint School Science Exhibition 第 50 屆聯校科學展覽	1. 全場亞軍 2. 最受歡迎攤位	方子諾 6D 許譯文 6D、陳營隆 6E、 洪曉樺 6E、許灝灃 6E、 許煒鈞 6E、林筠燐 6E
Robotics Intelligence and Digital Media DIY 2017 智能機械及數碼媒體由我創 2017	一等獎	4C 何紀樂 4C 何栢曦、4C 何栢曦 4D 張嘉祐、4D 呂綽軒
Chemists Online “Self-study Award Scheme 2017 「化學家在線」自學獎勵計劃 2017	白金獎	6D 吳肇殷
	金獎	6D 李子良
The Hong Kong Mathematics Creative Problem Solving Competition 2016-17 香港數學創意解難比賽 (中學組)	銀獎	2A 施楓茗 2B 陳少杰 1A 張賢景 1A 黃朗賢
Vibrating Robot Relay Race 微型震動機械人大賽	一等獎	4A 蔡宗霖、4A 盧進濠 4D 黃力行、3B 何旨行 3B 石永銘、4C 陳偉賢 3B 蔡榮煌、3B 何偉業
	二等獎	3A 伍家強、3C 盧俊宏 3C 潘御生、3E 盧子健 2B 郭仲民、1B 藍彬 1B 白倚凡、1C 何梓灝 1C 吳子聰、1C 林栢誠
VEX robots on Six Arts VEX 機械人 科技顯六藝 創意比賽 [射藝]	三等獎	4C 何紀樂、4C 丁柏希 4C 黃俊熹、4D 呂綽軒
WRO 世界奧林匹克機械人競賽	極速循線 – 嘉許獎	1A 廖東權、1A 楊皓溱
少年太空人體驗營	香港代表之一	4C 謝皓民

Acknowledgements:

- Gifted Education Team
- Science promotion team
- Physics, Chemistry, Biology, Integrated Science and Mathematics Panels
- Robotic Team
- JSSE sub-committee
- Programme Design Club
- Academic Affairs Committee



SCIENCE
@ SALESIAN

For further information:
You may contact Mr. Tse Sui Fai for further information at 2884 3581,
or visit our school website: www.ssshk.edu.hk



Cover illustration: Daniel Ng Ka Lung (F.6D)