

Science Magazine

2018-2019

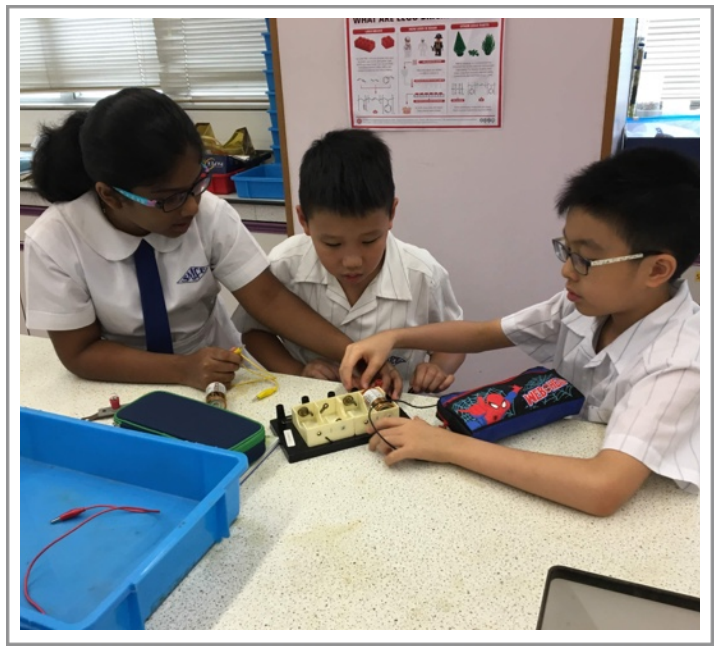
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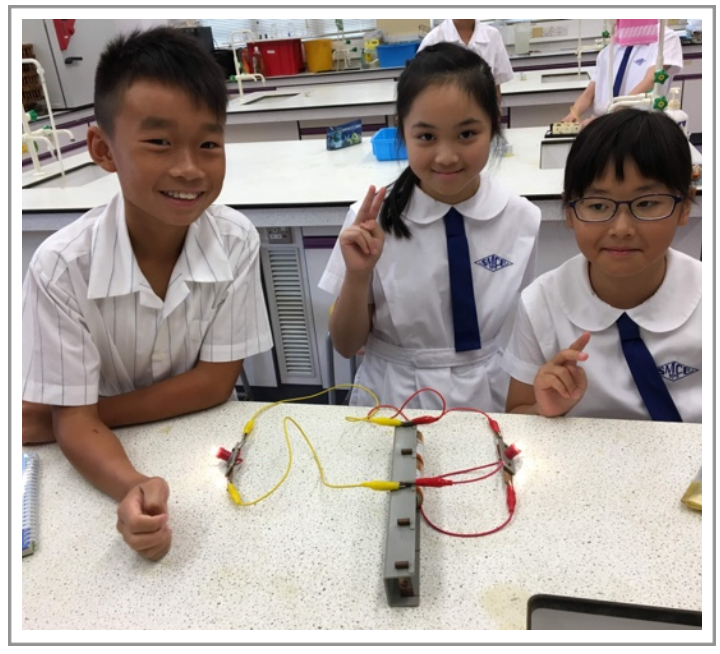
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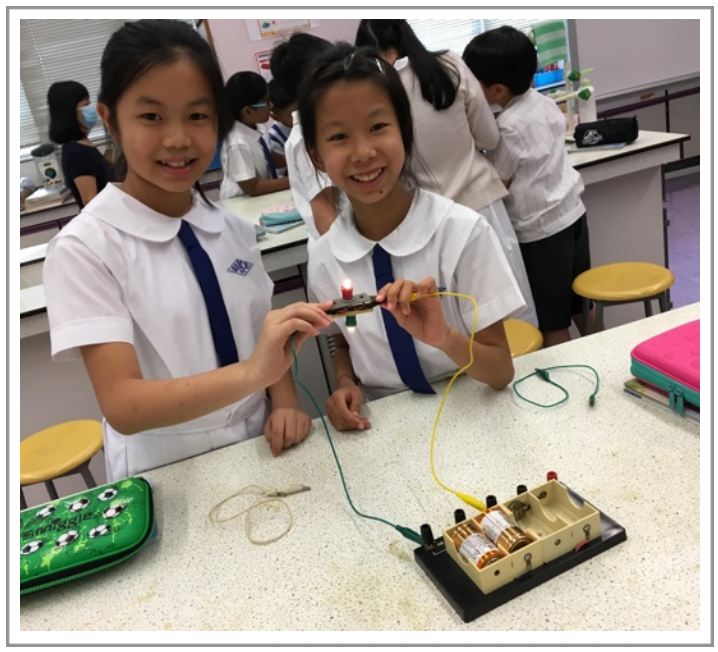
LESSON ACTIVITIES

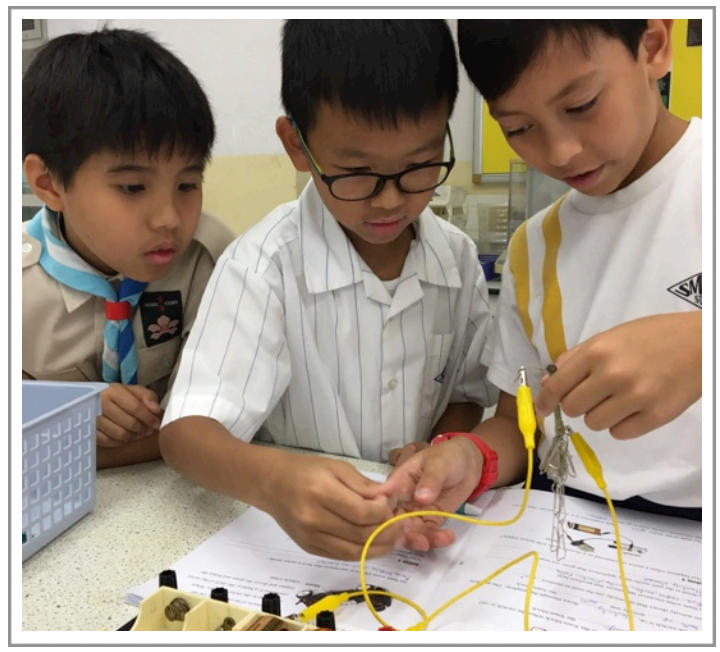
P.5 Lesson Highlights

In Primary 5, students gained insights on electric circuits. What better way to do so than by having a hands-on learning experience! Students are the most engrossed and eager to learn when given the opportunity to experience science first-hand.









Top left: Students learning to use a battery box

Top right: The parallel circuit is completed!

Bottom left: The bulb successfully lit up!

Bottom right: Students constructing an electromagnet with only principles but no procedures from textbook

S.4 Lesson Highlights

In Chemistry lesson, our S.4 students worked on a "daily life" themed group project. The objective of the project was to create a video that illustrates the use of chemistry in fundamental events occurring in our everyday life. In the process, students could further acquire meaningful content knowledge from beyond the standardized textbook's scope, encouraging self-directed and life-long learning habits. This also provided students with a valuable prospect to fine-tune their IT skills.





Left: Students filming and conducting experiments in the Chemistry Laboratory

Right: A student extracting protein from milk

"We learn by doing because we do by learning"
Saji Ijiyemi

The best way to learn science is by doing it. Students apply what they have learnt in class and acquire new knowledge through hands-on activities, going a step further by experiencing science!



S. 6 Lesson Highlights

Our S.6 students had the opportunity to have hands-on experience in an exciting spectrum of biology - Dissections. In biology lesson, they dissected white long-tailed rodents! All the students thoroughly enjoyed the unforgettable experience where they opened the body cavity to examine the magnificent characteristics of anatomy and various internal systems.

Top left: A close-up of a dissected rat

Top right: A student using scissors to cut open the rat

Bottom left: Our students presenting their work

Bottom right: Our biology teacher instructing the students on how to dissect a rat









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INTERNAL ACTIVITIES

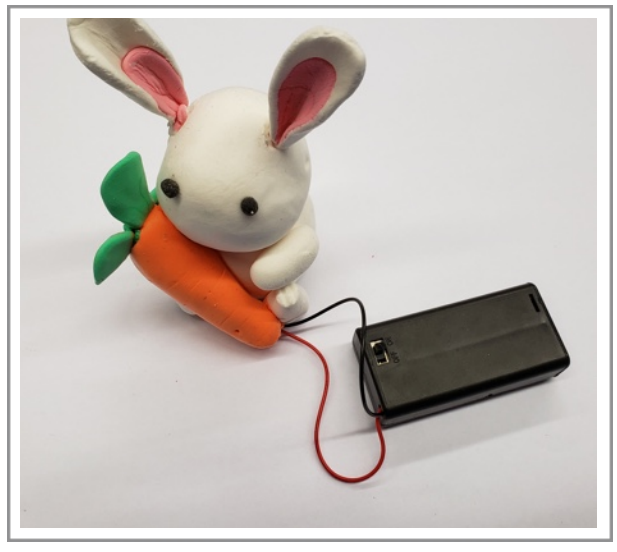
Showing Appreciation with Electricity

We have always believed that integrating essential values into our education is vital for students' all-round development. Our S.2 students experienced a very heartwarming project in which they integrated key concepts from what they learnt in class about electricity into beautiful presents dedicated to their beloved teachers! A wide variety of creative designs were produced.

Below: Some of our students' final products

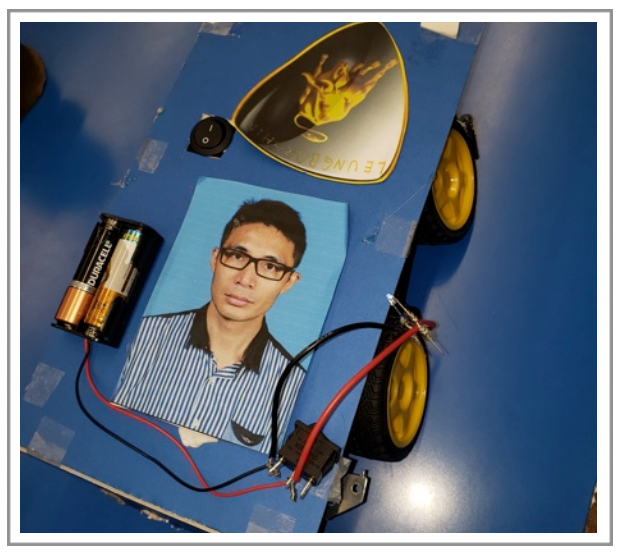












Top left 1: Glowing flowers decorated with Hello Kitty wrappers

Top left 2: A "light" birthday cake

Top left 3: Cute rabbit holding a carrot

Bottom left 1: A lighting card with a cake dedicated to their math teacher

Bottom left 2: A nicely decorated lamp

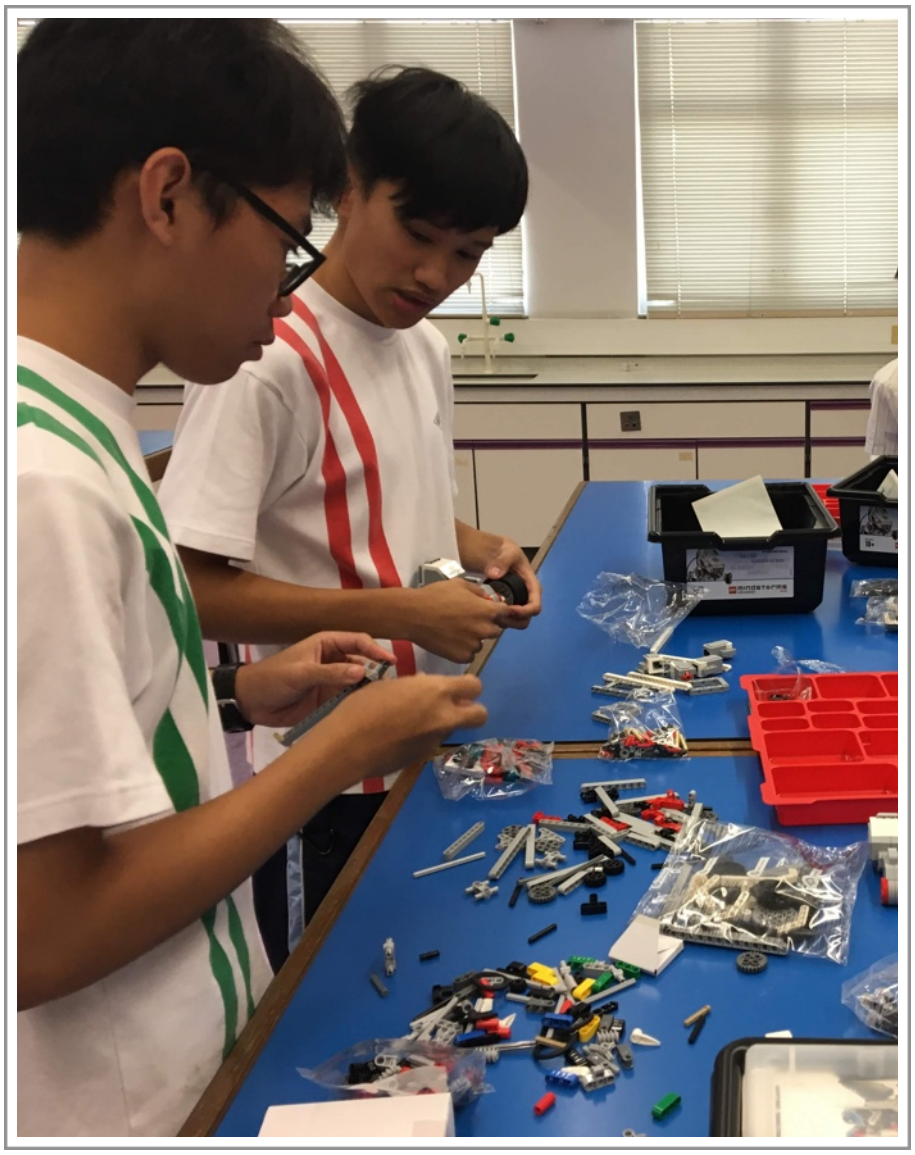
Bottom left 3: An electric toy car dedicated to their STEM teacher

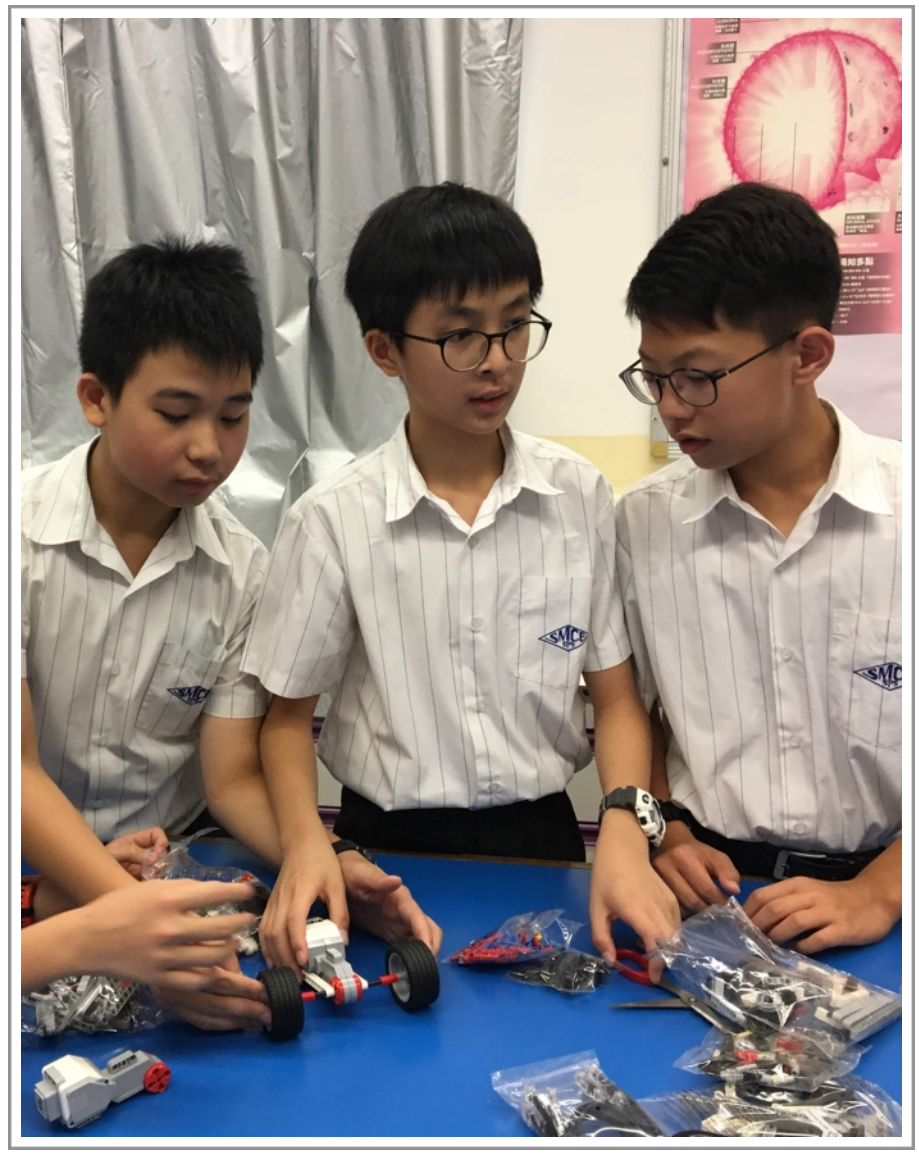


Students presenting their presents
to their science teacher
Our teachers surely love these
meaningful and pretty gifts a lot!

Interactive LEGO Training Activities

The combination of Science, Technology, Engineering and Mathematics has been deemed as the future of our evolving society, which is why a major focus of our education is to integrate and apply knowledge into solving daily life problems. Students from both primary and secondary had a valuable season strengthening their skills and our renowned through-trained spirit, by learning about STEM through interactive lego training activities held at school twice a week.



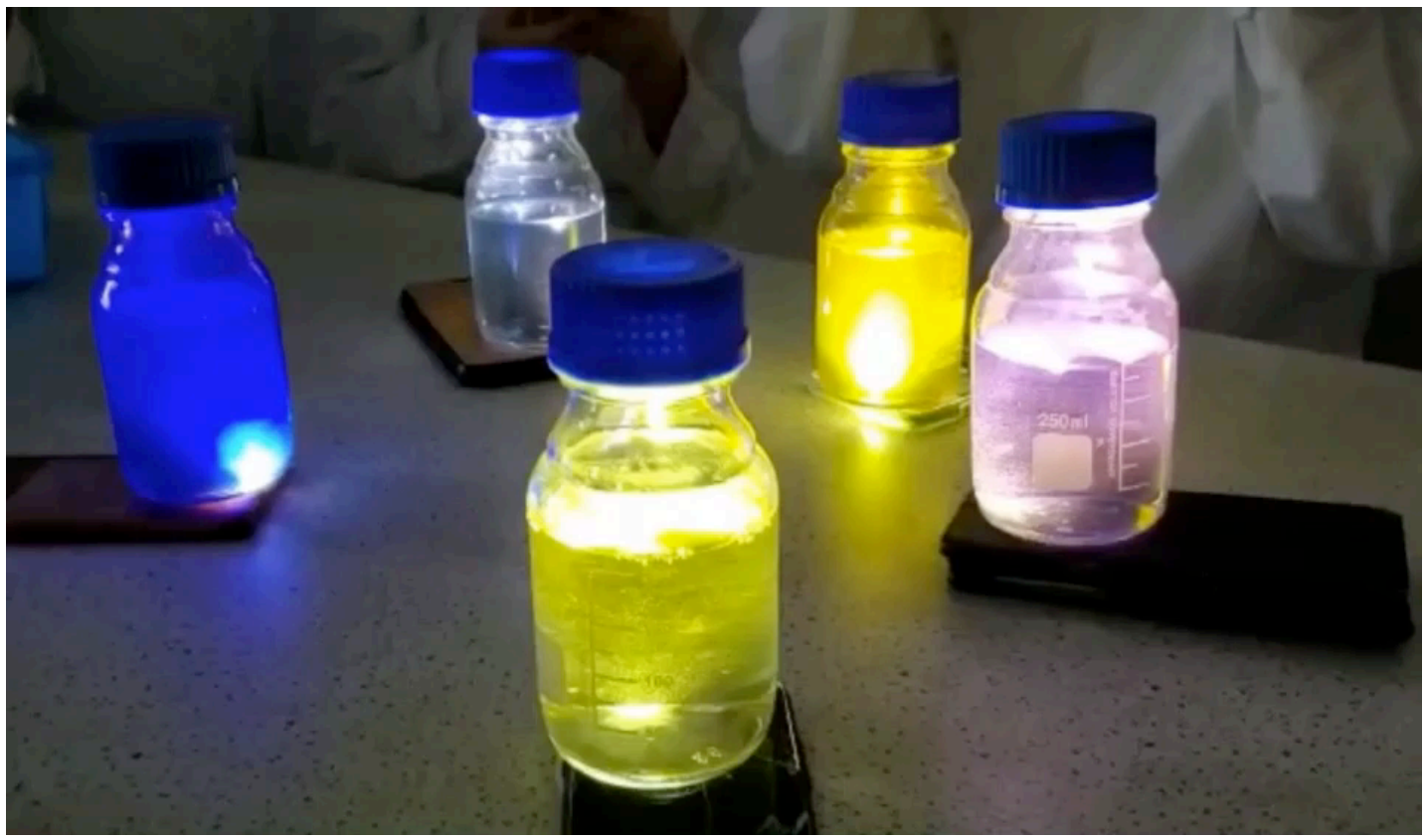


Left: S.5 students building a robot from scratch

Right: S.2 students building a LEGO car

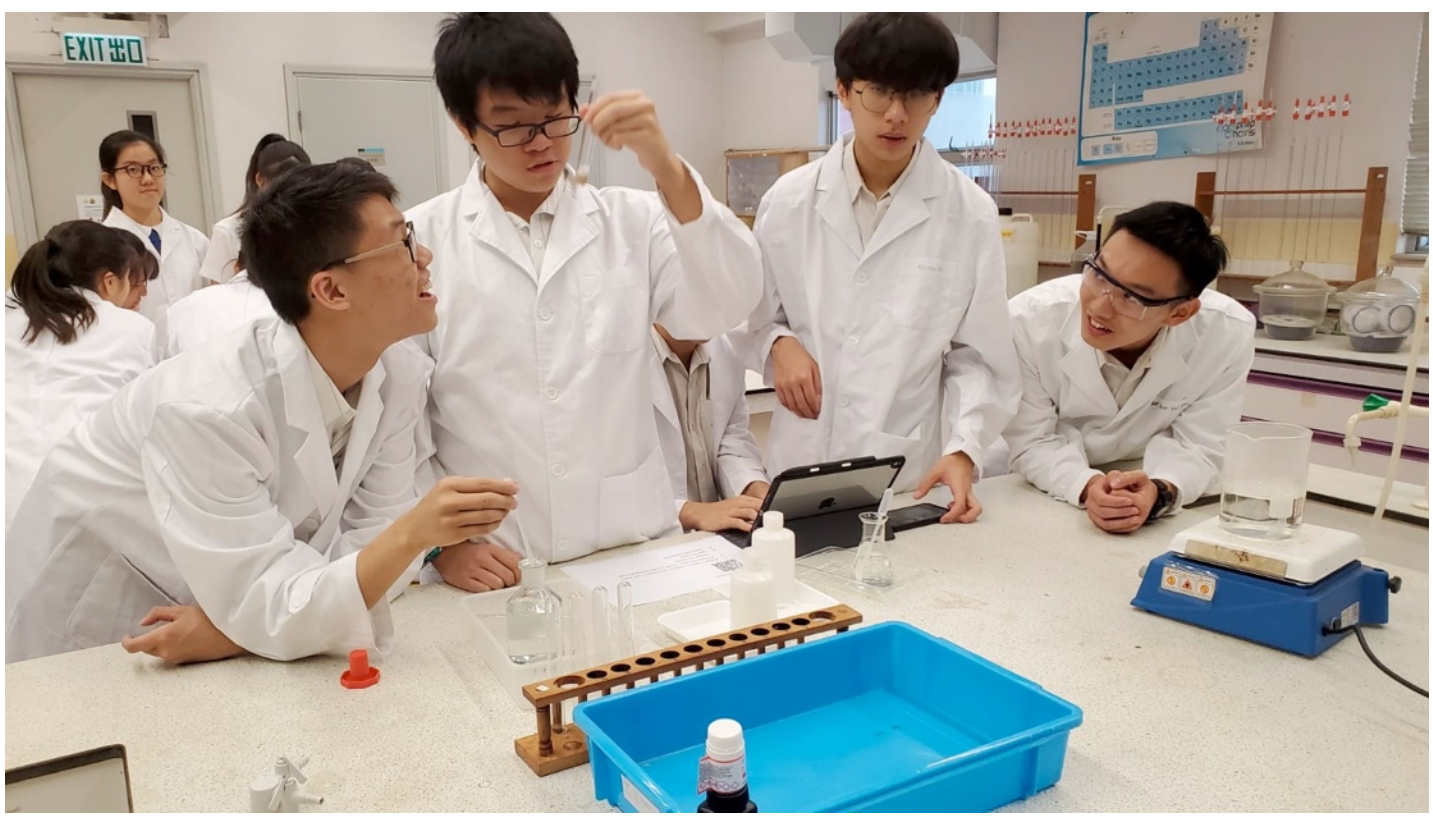
Chemistry Workshop

Our school organizes different interesting and educational activities for students after their assessments end. This year, our S.5 Chemistry students had a lot of fun with performing the silver mirror test and paper chromatography which they have learnt from textbooks. They also created beautiful "blue bottles' and "traffic light oscillations" that change colour after shaking by mixing sodium hydroxide and glucose with the indicators, methylene blue and indigo carmine respectively.



Above: Lighting bottles with different amount of methylene blue and indigo carmine added

Below: Students performing the silver mirror test



Students are having fun with the blue bottles and the traffic light oscillations!

The blue bottle appears to be blue and first, but it decolourizes and turns to blue again upon shaking..

While a successful traffic light oscillation appears to be yellow at first and a red colour is achieved through shaking. once. A further vigorous shaking as demonstrated by our student turns it from red to green.

Top: The bottle appears blue at first...

Bottom: A student shaking a traffic light oscillation





3 EXTERNAL ACTIVITIES



Let's go beyond the classroom to explore the world of science!

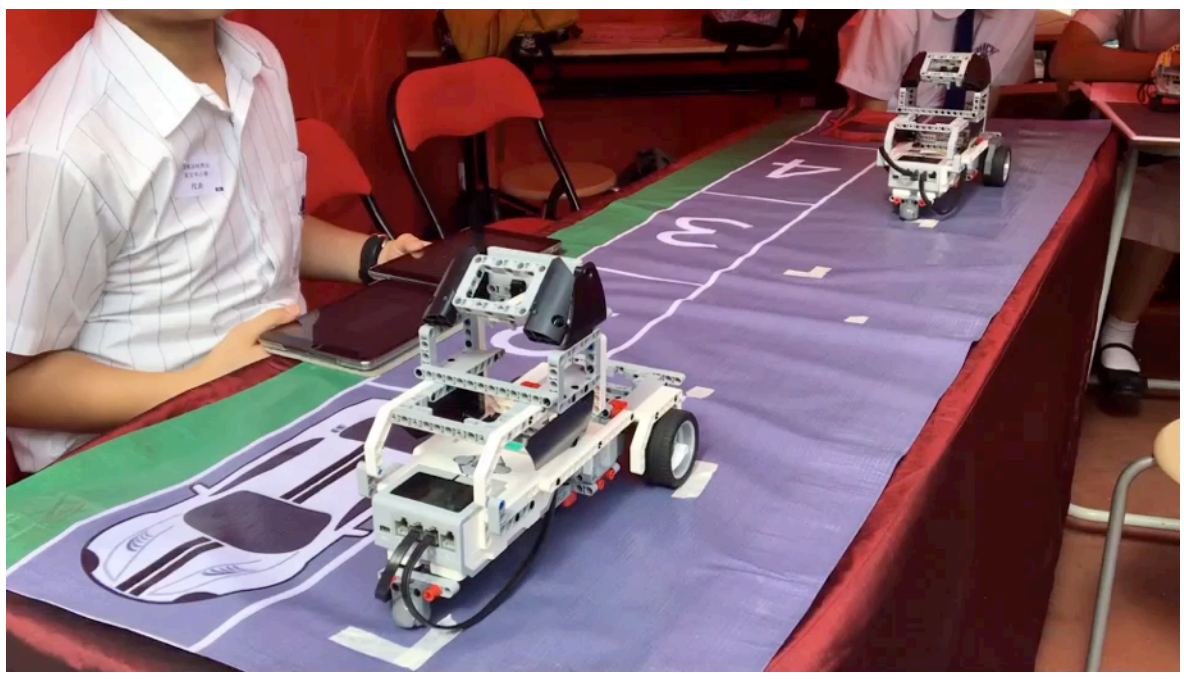
STEM Fair

Our students participated in the DSS STEM Fair 2018 held at St. Paul's Convent School from the 22nd to 24th of September. Six of our students from the STEM team, worked hard to set up a booth where they put on a superb robotics display, themed "Autonomous Parking", with confidence and clarity. The students designed a program for their LEGO cars to park into the parking lot automatically. Through this experience, students' programming and communicative skills improved greatly when interacting and exchanging ideas with representatives from other schools and by introducing their displays to visitors of all ages.

Top: Our student demonstrating their work

Bottom left: Group photos of our students with guests, our principal and teacher in charged

Bottom right: Our student explaining their work to a visitor







Joint School Biology Mock Exam

Our school had successfully arranged two Biology mock examinations in collaboration with Marymount Secondary School and Pooi To Middle School for a Pre-mock and a Post-mock examination respectively for our S.6 students. The examinations further strengthened and provided assurance on students' content knowledge and analytical skills, such that the experience was worthwhile and intuitive for the S.6 students as useful preparation for the public examination.



Above: Group photos of teachers and students from our school and another school

InnoTech Expo

The InnoTech Expo 2018 was organized at the Hong Kong Cultural and Exhibition Centre. The core value of the event has always been "Tomorrow's talent is inspired by today's ideas", which aims to promote science education and helps nurture excellent science and technology talent in Hong Kong.

The theme of this year's event was "Drive Innovation, Follow the Past and Herald the Future". On the 24th of September, students had the opportunity to visit the expo, where they broadened their understanding on the infinite possibilities of science by exploring the latest scientific research results in Hong Kong. They reviewed China's ancient and modern progress in science and technology while exploring directions for future development in industrial, agricultural and healthcare departments. Student's awareness on the importance of innovative technology was also highly raised by showcasing local award-winning inventions.



Above: Students watching a video about innovation in China at the InnoTech Expo

S.5 Mai Po Field Trip

S.5 Biology students visited the Mai Po Nature Reserve to learn about the endangered species and the rich environment of wildlife established within the ecosystem. At the field trip, students were assigned practical tasks to complete and were exposed to a wide variety of tools often used in the field of ecological studies. Experiencing learning outside the classroom was beneficial to the development of students' lifelong learning attitudes. Our students brought back insightful knowledge which would reside within them forever.



Above: Group photos of our students with our biology teacher and laboratory technician

Top left: Students listening to the guide

Top right: A student observing the nature with binoculars

Bottom left: A student recording the data collected

Bottom right: Our students having fun with friends and the nature!

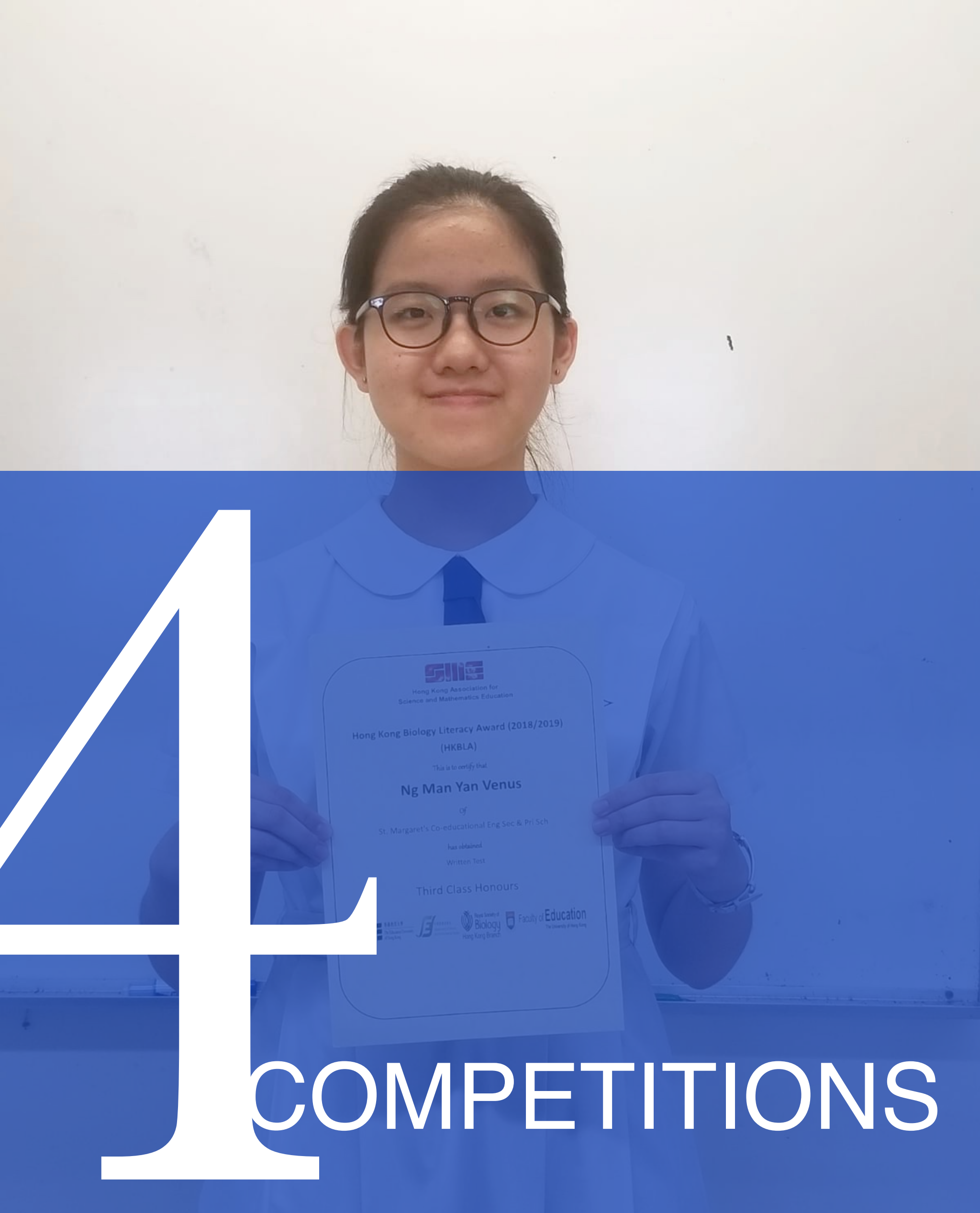








4 COMPETITIONS



Every year, our students participate and receive awards in different science competitions with the help and support from our teachers. It is the time for our students to shine and unleash their potential!



全港機械人海洋保育運動

In July, two teams of our students participated in the 全港機械人海洋保育運動 organized by The Hong Kong Polytechnic University & Youth Mechanic Association of Hong Kong. Each team of students did research on an issue related to marine protection and proposed a solution for it. They also constructed a programmed robot to complete various tasks related to marine protection.

Our primary team was awarded "The Most Creative Award" (全場最具創意大獎) and Distinction Award (優異獎) respectively.



Above: Our primary and secondary team at the prize presentation ceremony

Odyssey of the Mind Hong Kong Regional Tournament

The odyssey of the Mind Hong Kong Regional Tournament is a creative problem-solving and STEAM competition. During the event, students have to solve a Spontaneous Problem on the spot using their creativity and teamwork. They also have to do a live performance for a selected Long Term Problem.

Despite this being their first attempt, after months of preparation and hard work, our team of seven P.4 to P.6 students got Champion for Long Term Problem 1 in Division I. They further competed for Hong Kong at the Odyssey of the Mind World Finals in the United States in May.



Above: Leung Lok Yin, Leung Lok Gi, Del Mundo Giuliana, Li Choi Yee, Kwong Leann, Kwok Ching Yiu, Lee Wang Lok (from left to right)

Left: Cutting wood with a saw under the supervision of our teacher

Right: Explaining to the judges

Top left: Rehearsal for World Finals

Right: Departure at the Hong Kong airport









Hong Kong Product Design Makeathon



Above: Photo of our students with one of the judges and the STEM teachers

Our students participated in the Hong Kong Product Design Makeathon organized by The Hong Kong Polytechnic University that lasted from September 2017 to May 2018 and placed 2nd in the Wearable Technology Category. This competition aimed to enhance student's interest in product design by encouraging creative designing and to promote the usage of STEM knowledge to solve problems encountered in daily life. The competition was themed on smart home, wearable technology, healthcare or rehabilitation products. Our students designed a product called the "Smarty Ring - the ring in need" which targeted the elderly and was designed to be simple, personalized, automatic, immediate, with an inbuilt 24-hour monitoring system that can send out distress signals for urgent medical attention.

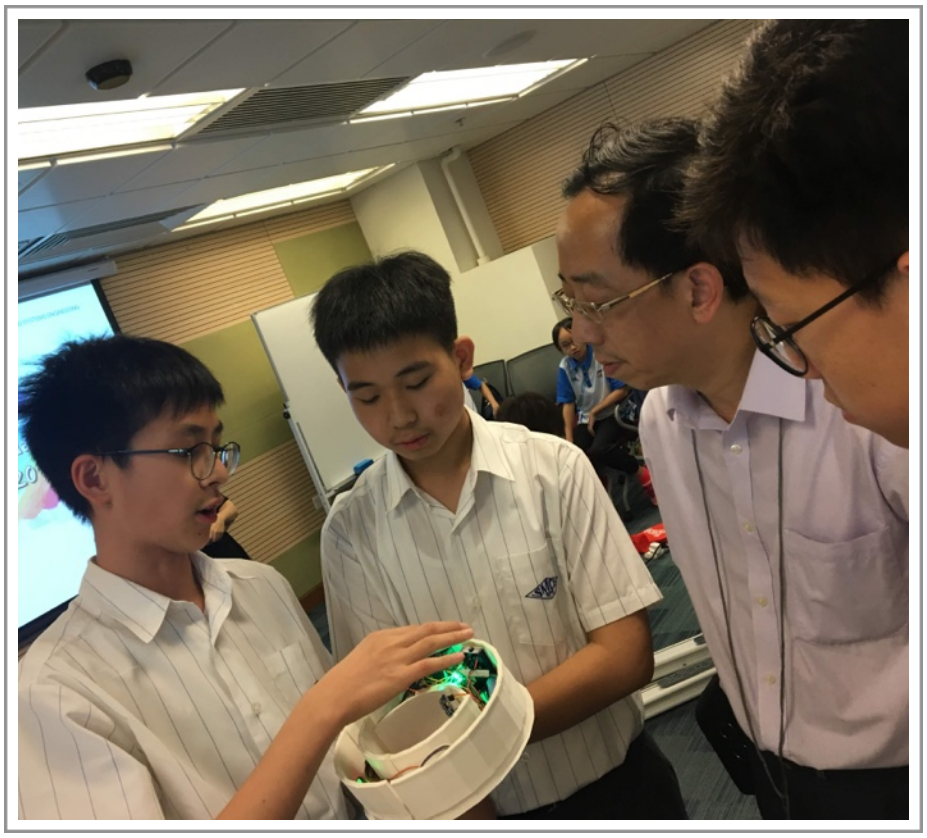
Top left: Our winning students Keith Yeung, Matthew Mak, Mitchell Wong and Kelvin Leung (from left to right)

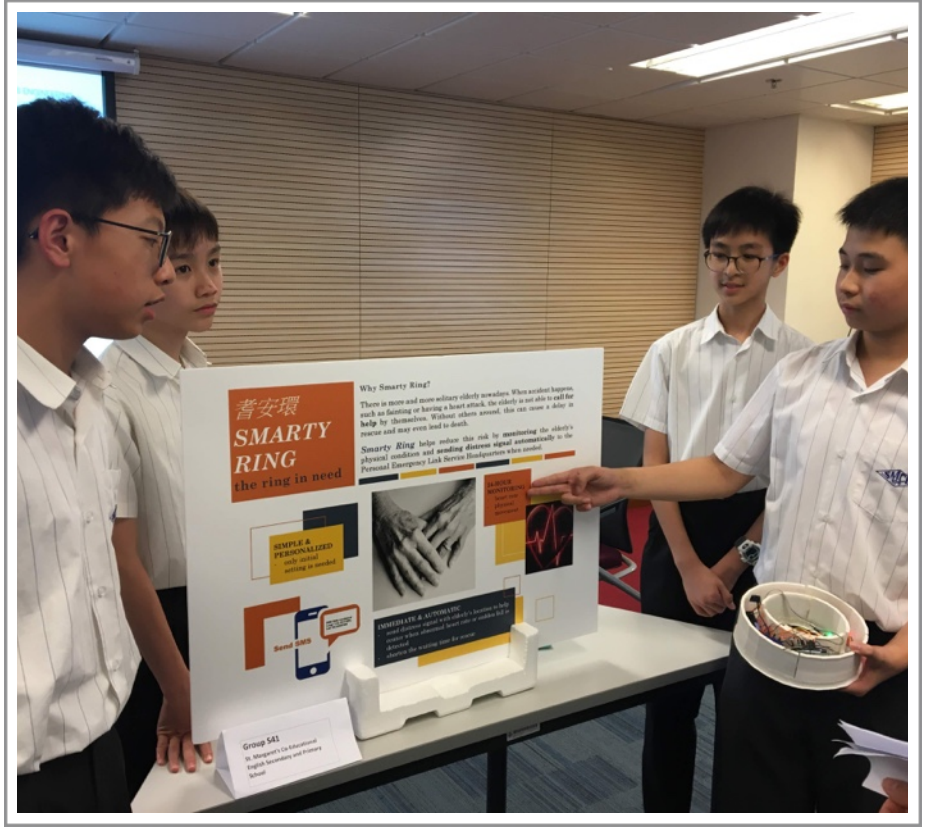
Top right: Our students explaining their design to the judge

Bottom left: Presenting their product to visitors and judges

Bottom right: The details of their product, the Smarty Ring - the ring in need









International STEMathon 2019

A team of our students participated in the International STEMathon 2019, organized by SCMP's Young Post, from the 28th to 29th of March at the Hong Kong Science Park, and was crowned the champion. The purpose of the competition was to harness local talent to develop viable and innovative solutions to help protect the ocean. Throughout the 30-hour hackathon-styled challenge, our team of students had the opportunity to exchange ideas with students from Beijing, Guangdong, India, Indonesia, Macau, Malaysia, the Philippines and Thailand.

Top left: Group photo at the prize presentation ceremony

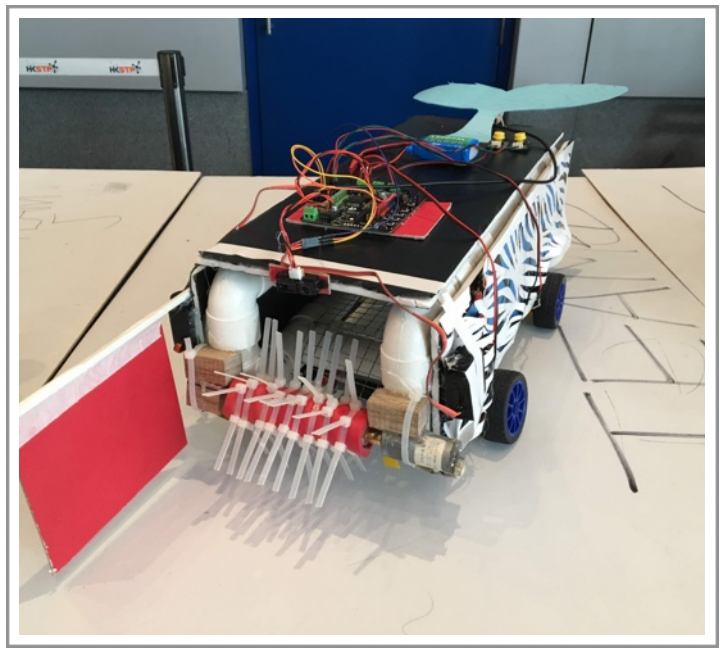
Top right: News report featuring students from our school

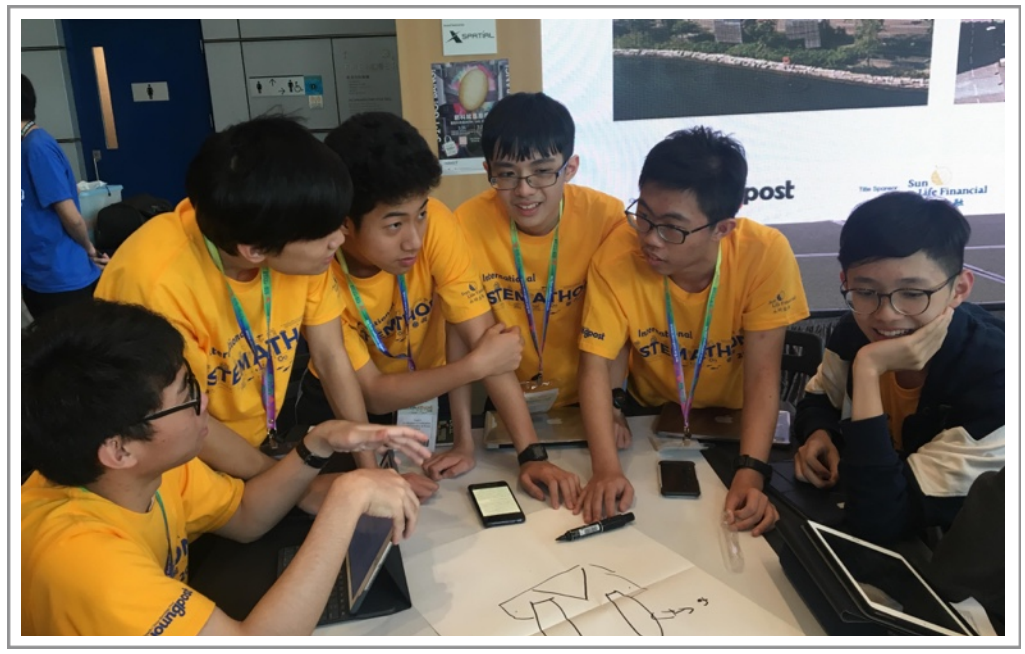
Bottom left: Students' final product

Bottom right: Students' discussing on their task









" I enjoy the competition and the process of learning as we compete. The whole thing is just fascinating. I don't know what I'll do when I retire. When I go sailing, I look around... anyone want to race? I just love competing as opposed to just going out and watching the sunset."
Larry Ellison

Secondary School Mathematics and Science Competition

Our students participated in the Secondary School Mathematics and Science Competition organized by The Hong Kong Polytechnic University. It aimed to promote student's interests in Biology, Chemistry, Mathematics and Physics through competition. This competition helps our S.5 students to consolidate what they have learnt and better prepare themselves for the upcoming public examination.

Physics

S.5 Au Tsz Chun - Distinction

S.5 Law Felix - Distinction

S.5 Ng Man Yan Venus - Credit

Chemistry

S.4 Selva Sathish Achudha Bala - High Distinction

S.5 Ng Man Yan Venus - Distinction

S.5 Yip Yan Tung - Distinction

Biology

S.5 Ng Man Yan Venus - High Distinction

Hong Kong Biology Literacy Awards

The Hong Kong Biology Literacy Awards was organized by the Hong Kong Association for Science and Mathematics Examination and our students received 11 awards in total. Throughout the competition, students' interest in Biology was activated by challenging and expanding their talents and scientific literacy. They had also received exposure in cutting-edge biological knowledge and innovation.





Top: Ngan Yi Kwan, Leung Lik San Nixon (from left to right)

Bottom: Leung Yan Kiu, Ng Sin Yin, Lim Ji Eon, Kroon Maria Isabella Wihemina, Yeung Tsz Shun, Wong Hei Yin, Cheung Puffe, Wang Tiffany (from left to right)

Awardees of the Hong Kong Biology Literacy Awards

First Class Honours

S.4C Leung Lik San Nixon

Second Class Honours

S.6C Wang Tiffany

S.6C Kroon Maria Isabella Wilhemina

Third Class Honours

S.6C Wong Hei Yin

S.6C Lim Ji Eon

S.6C Leong Yan Kiu

S.5C Ng Man Yan Venus

S.4C Ngan Yi Kwan

Merits

S.6A Yeung Tsz Shun

S.6C Cheung Puffe

S.6C Ng Sin Yin

Hong Kong Specimen Drawing Competition 2018

S.5C Tsui Yiu Ki was awarded the Outstanding Award in the Senior Secondary Category of the Hong Kong Specimen Drawing Competition 2018 organized by the Royal Society of Biology Hong Kong Branch. The event aimed to cultivate students' interests in biological drawing and instill respect for the wonders of life and living things.





Top: Photo of our student with the guest and our biology teacher

Bottom: Our student's work

Australian National Chemistry Quiz



The Australian National Chemistry Quiz was organized by the Royal Australian Chemical Institute and has a long history as a large-scale international quiz held in July. Students have to answer questions beyond what is covered in syllabus documents by applying their knowledge and understanding on materials provided.

Awardees

High Distinction Awards (Top 10 % in Hong Kong)

S.5 Man Yan Venus Ng

Distinction Award (10 % to 25 % in Hong Kong)

S.5 Hei Man Winson Chan

Credit Award (25 % to 40 % in Hong Kong)

S.5 Felix Law

International Junior Science Olympiad - Hong Kong Screening 2019

The International Junior Science Olympiad is an annual educational competition in Natural Science for students. It aims to promote and reward the pursuit of excellence in scientific endeavor, to challenge, encourage and stimulate gifted students, to create friendships and relationships among students from around the world. Students participating in the event would be exposed to problem-solving, critical thinking and experimentation, along with a positive impact in science and mathematics education at school level.

Awardees

First Honour

S.3 Yeung King Hei

Second Honour

S.4 Mo Yung Sze Chai

S.4 Selva Sathish Achudha Bala

Hong Kong Science Olympiad for Primary Schools 2019



Our primary students participated in the Hong Kong Science Olympiad for Primary Schools organized by the Hong Kong Association for Science and Mathematics Education.

Awardees

Gold Award

P.6 Kwok Lok Ka

P.5 Chan Shing Fung

Silver Award

P.5 Kwong Leann

P.6 Jia Wai Yin

P.6 Wan Hoi Yan

P.6 Kwok Ching Yiu

Bronze Award

P.6 Lam Ka Kin

P.6 Del Mundo Giuliana

Hong Kong Physics Olympiad

S4C Sam Ho Shun Hei (right most on the photo below) was awarded Third Honour in the Hong Kong Physics Olympiad.



Chemist Online 2019

Fifteen S.4 & S.5 students participated in the Chemists Online Self-study Award Scheme Program 2019 jointly organized by Hong Kong Virtual University and the Science Education Section of the Education Bureau. Through the program, students can enhance their chemistry knowledge and scientific literacy by taking online lectures of more advanced chemistry at their free time, at their own pace.

S4C

Cudia Mary Kim Elizabeth Tan - Silver Award

Ho Shun Hei - Diamond Award

Lee Dennie Joshua

Mo Yung Sze Chai - Silver Award

Pang Adina Joo Lan

Selva Sathish Achudha Bala - Silver Award

Tsang Tsam Yat Natalie

Wong Chak Tin Justin

Wong Keng Yuk

S5A

Sum Fu Ming - Bronze Award

S5B

Ngan Ming Huen

Suen Moon Chun - Gold Award

Suen Moon Sing

Wong Sik Yin - Silver Award

S5C

Ho Wai Yan Jackalyn

Hong Dylan Carswell

Mok Kar Lam

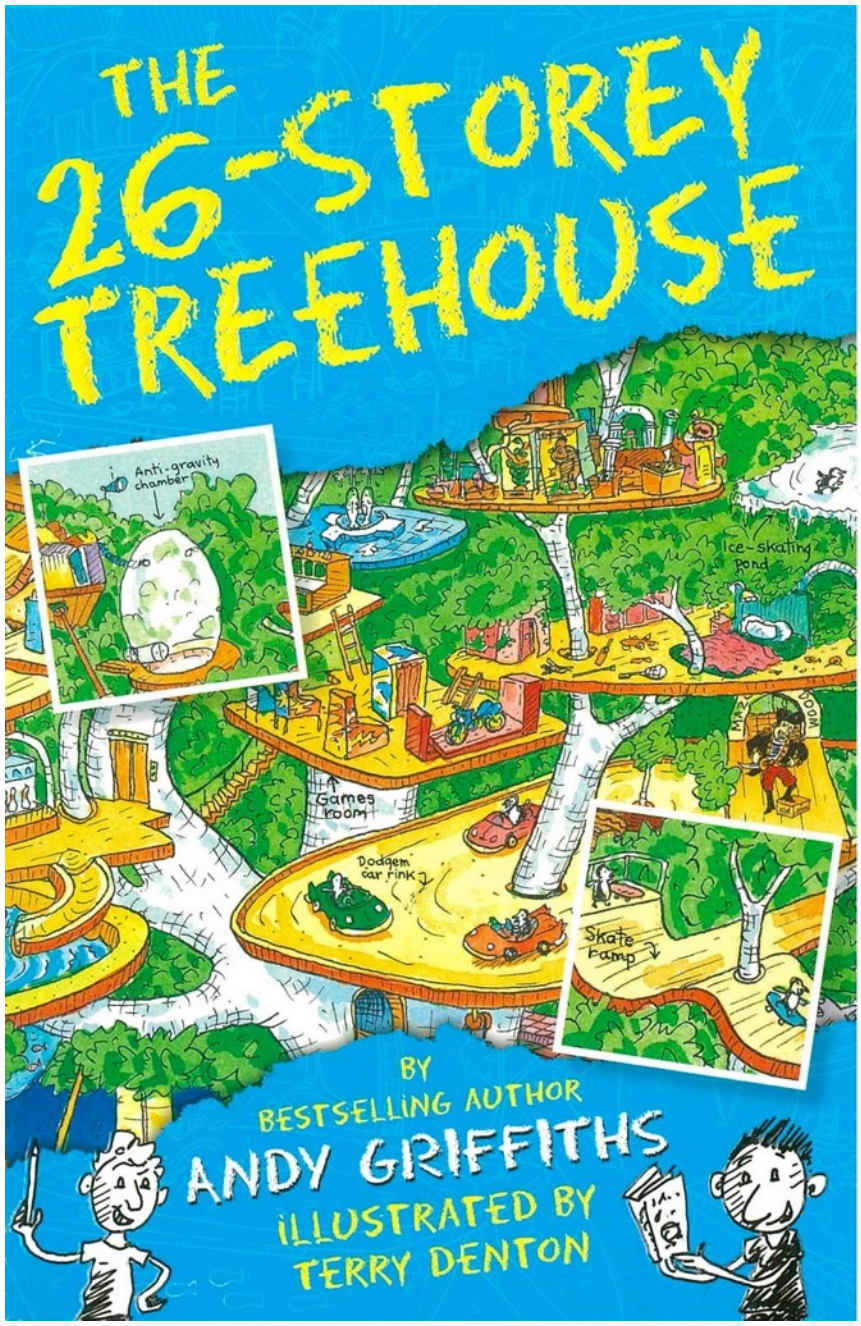
Tsang Yan Chak

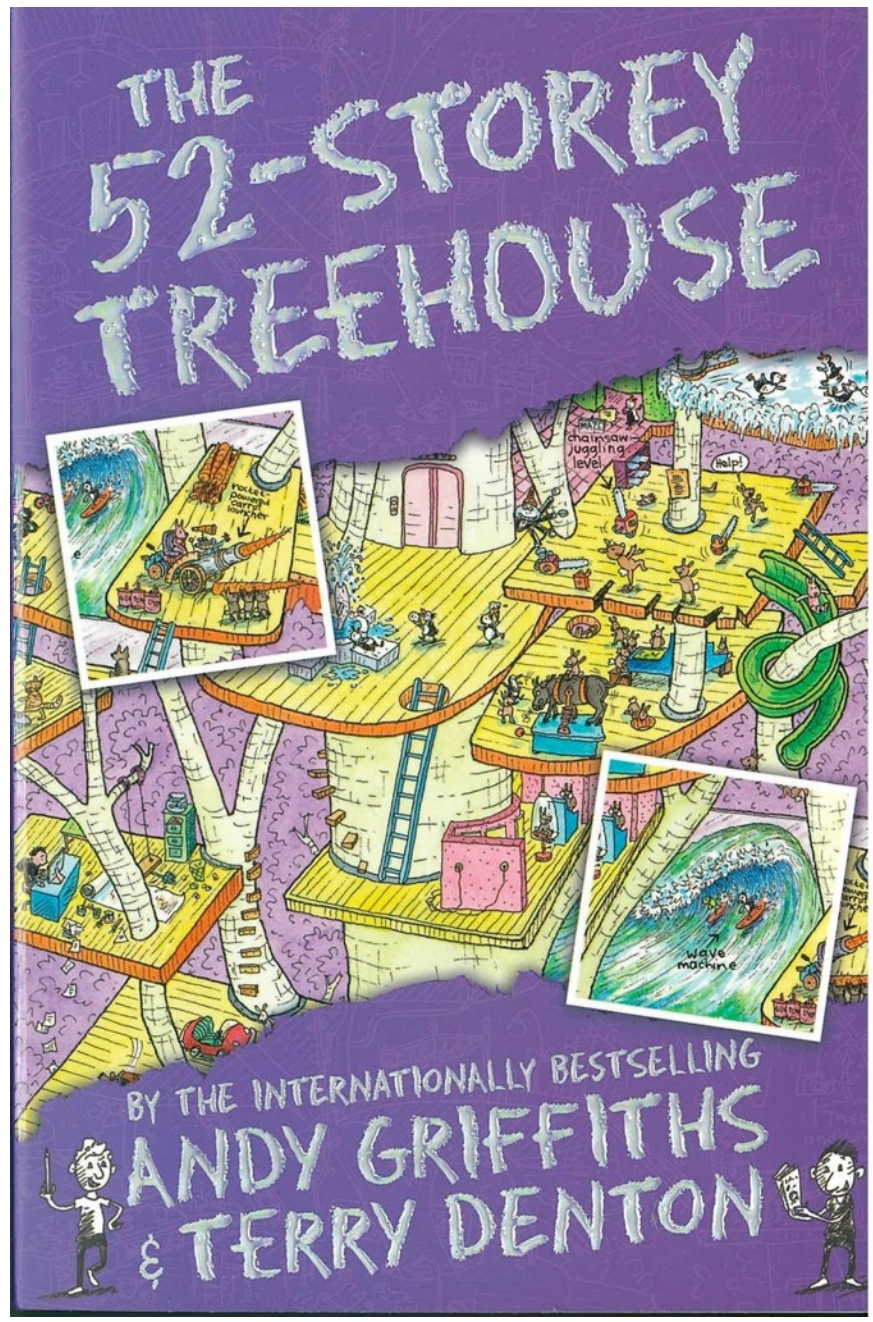
New Books

"The more that you read, the more things you will know. The more that you learn, the more places you'll go."

— Dr. Seuss

Dive into the world of words and graphics to unearth the mysteries in science and experience what we do not easily see in daily lives!





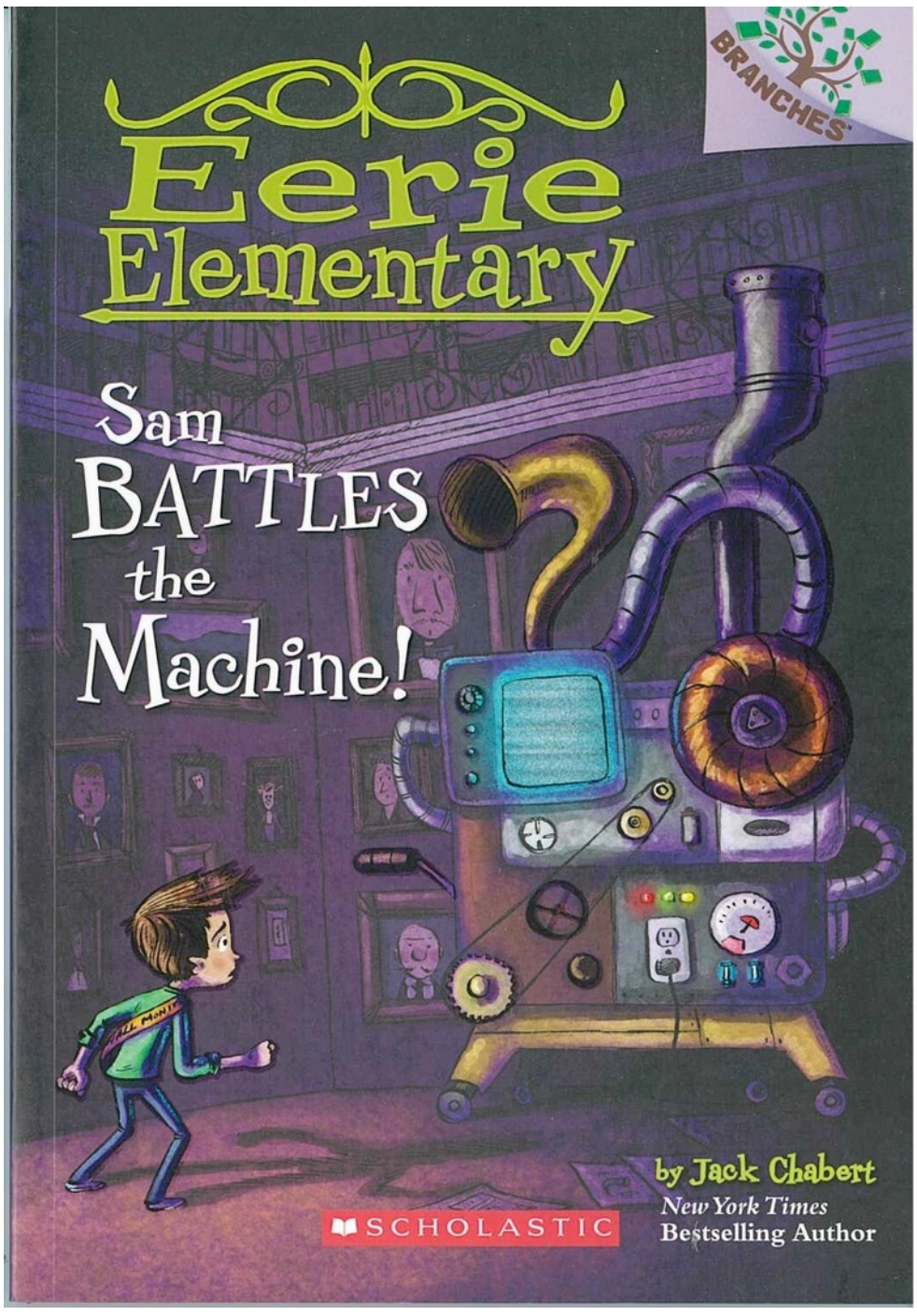
Andy and Terry write books and live together in an incredible treehouse. It was only 13-storey at first but then it expanded and will keep expanding! Are you ready to climb even higher with more crazy adventures?

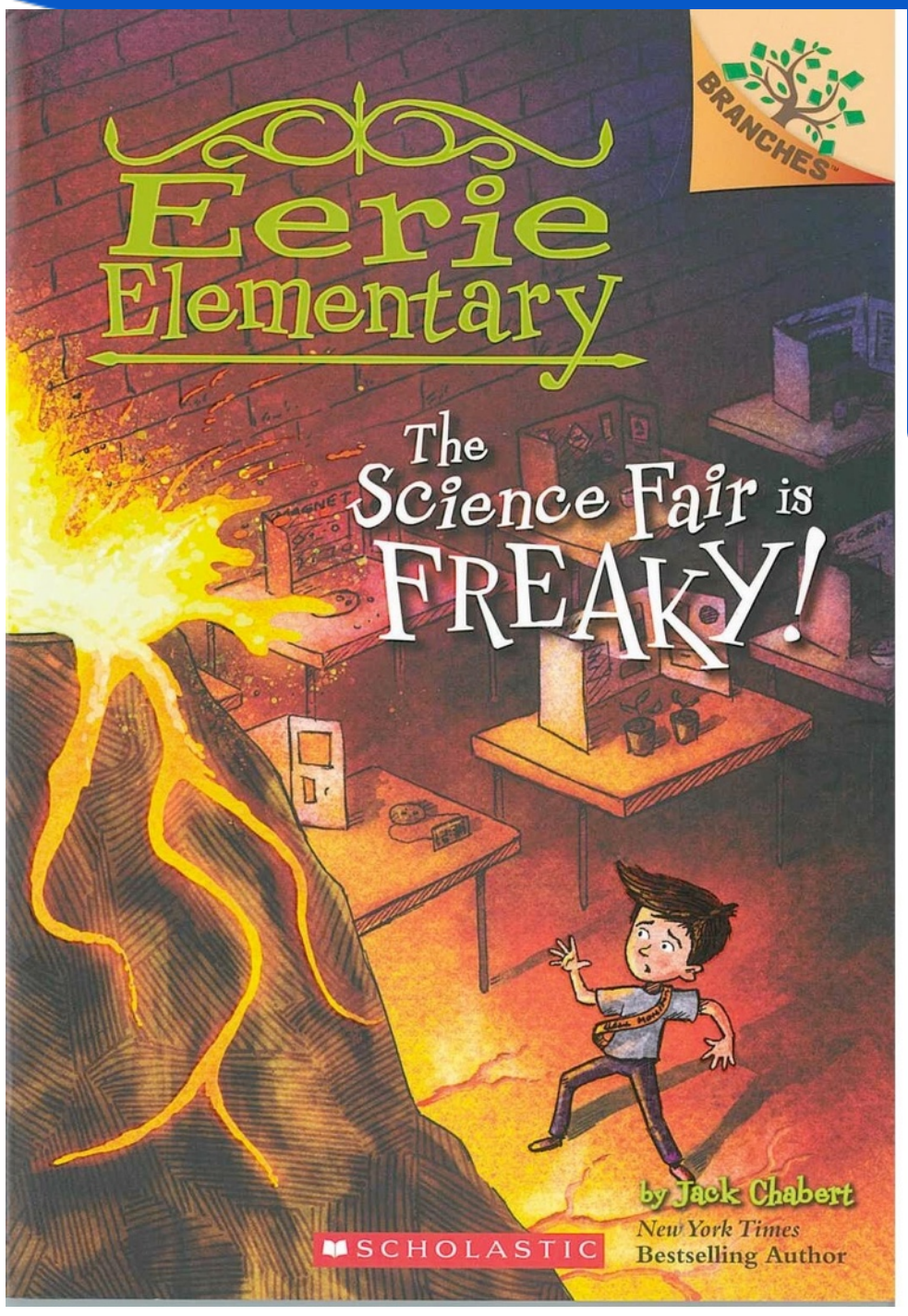
Left:
The 26-Storey Treehouse
(Treehouse #2)
written by Andy Griffiths and illustrated by Terry Denton

Right:
The 52-Storey Treehouse
(Treehouse #4)

Left:
Sam Battles the Machine!
(Eerie Elementary #1)
by Jack Chabert

Right:
The Science Fair is Freaky!
(Eerie Elementary #4)
by Jack Chabert

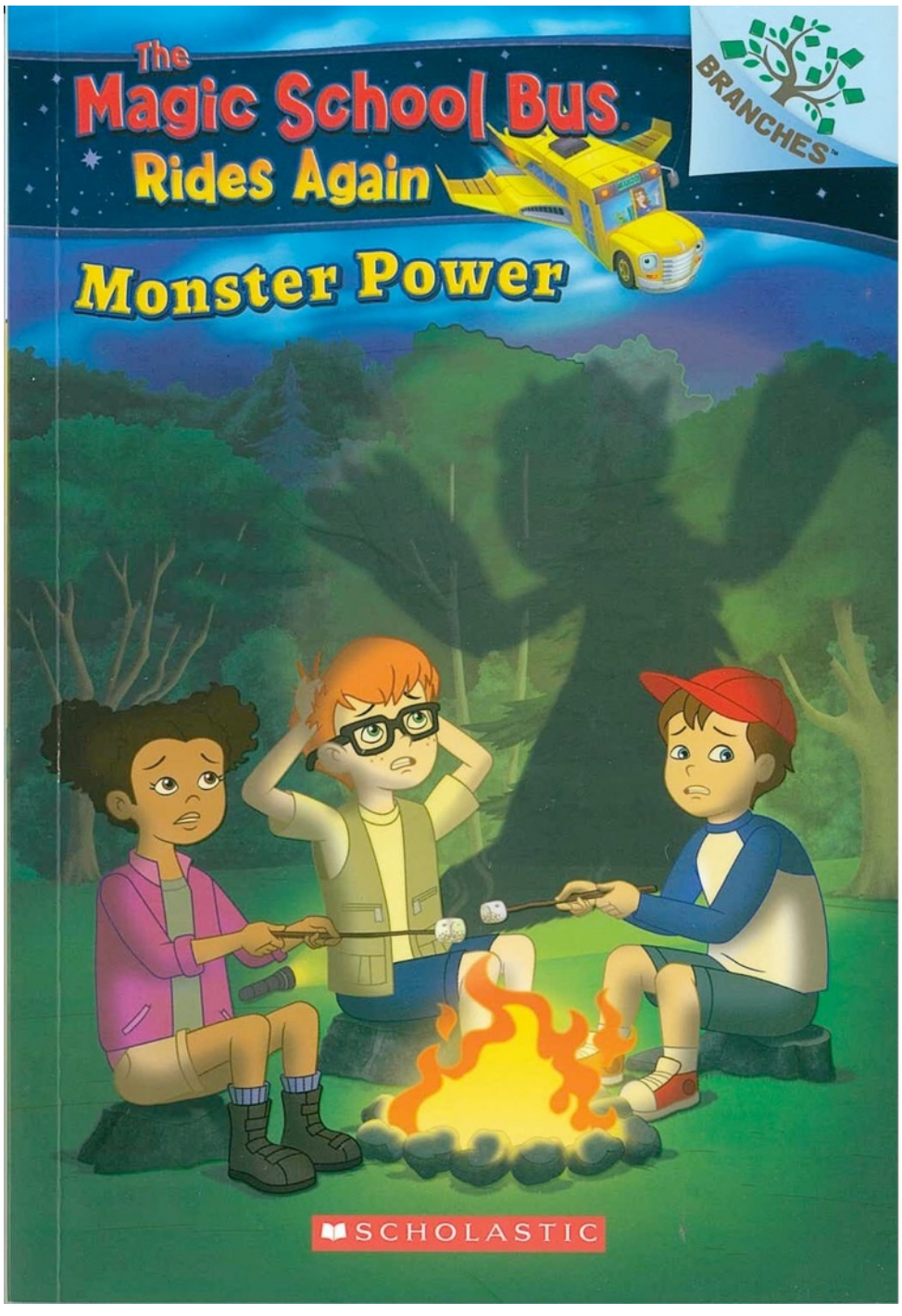


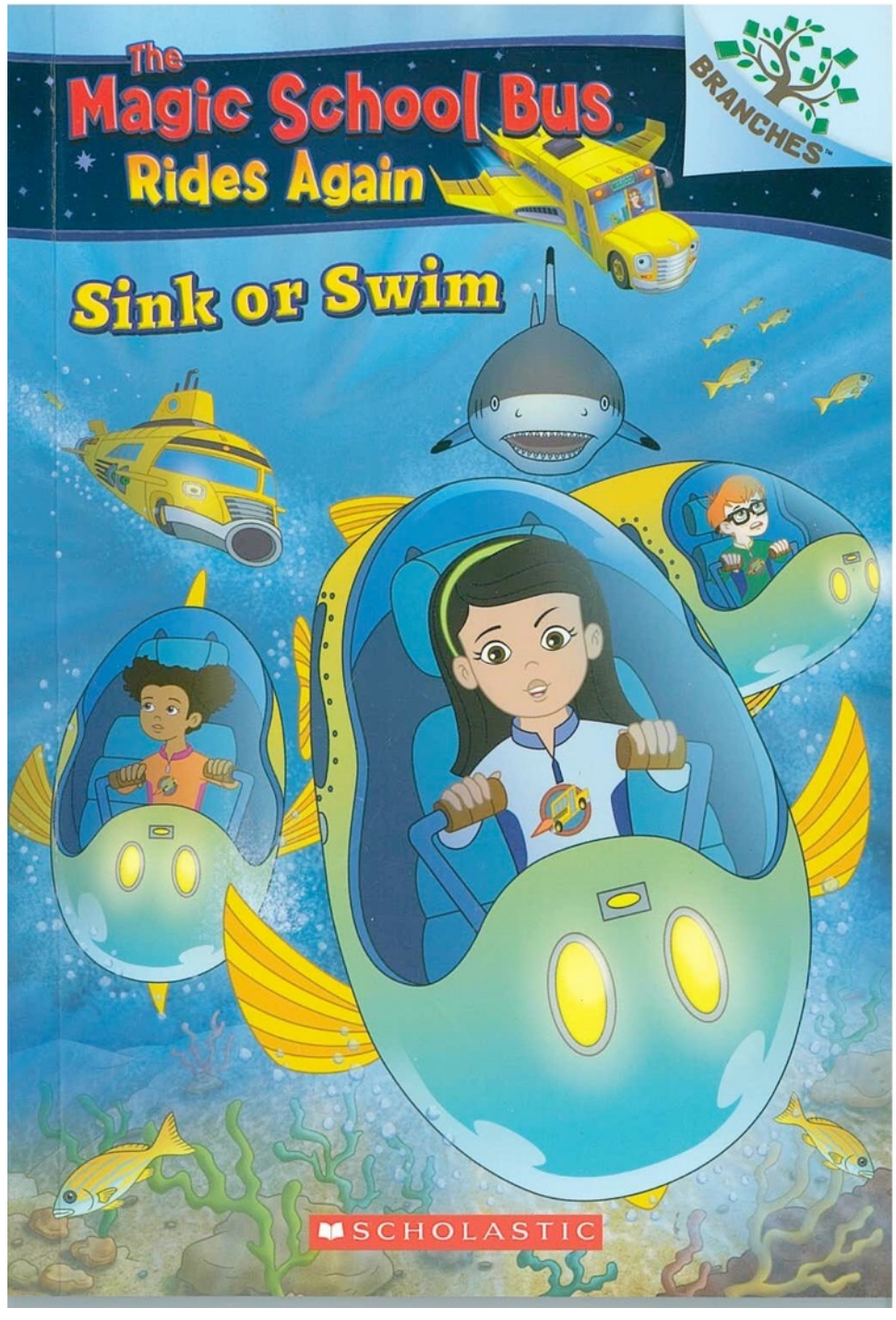


In *Sam Battles the Machine!*, which is the first book in the series, the protagonist Sam Graves discovered that his school is alive!

In *The Science Fair is Freaky!*, Sam and his friends found an old, strange book when preparing for the science fair.....

" Seatbelts, everyone! The Magic School Bus is back and ready to ride again."





Left:

Monster Power : Exploring Renewable Energy: A Branches Book (The Magic School Bus Rides Again)

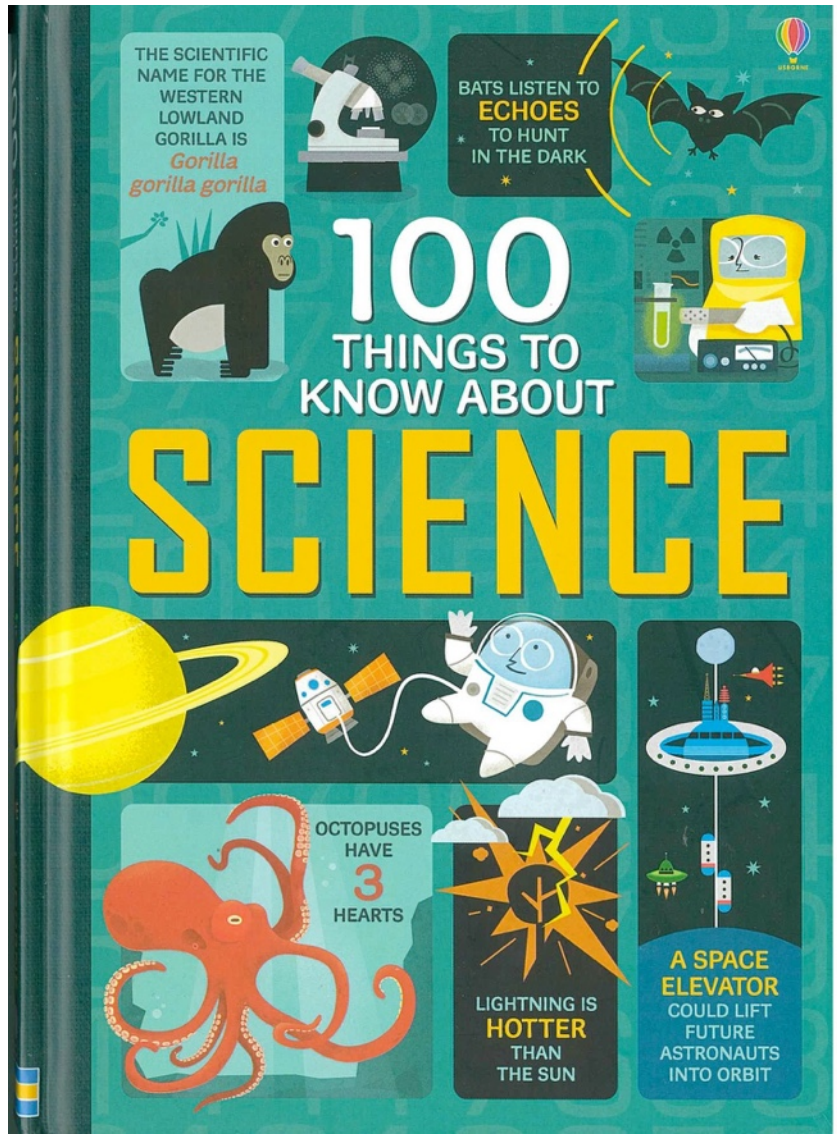
written by Judy Katschke

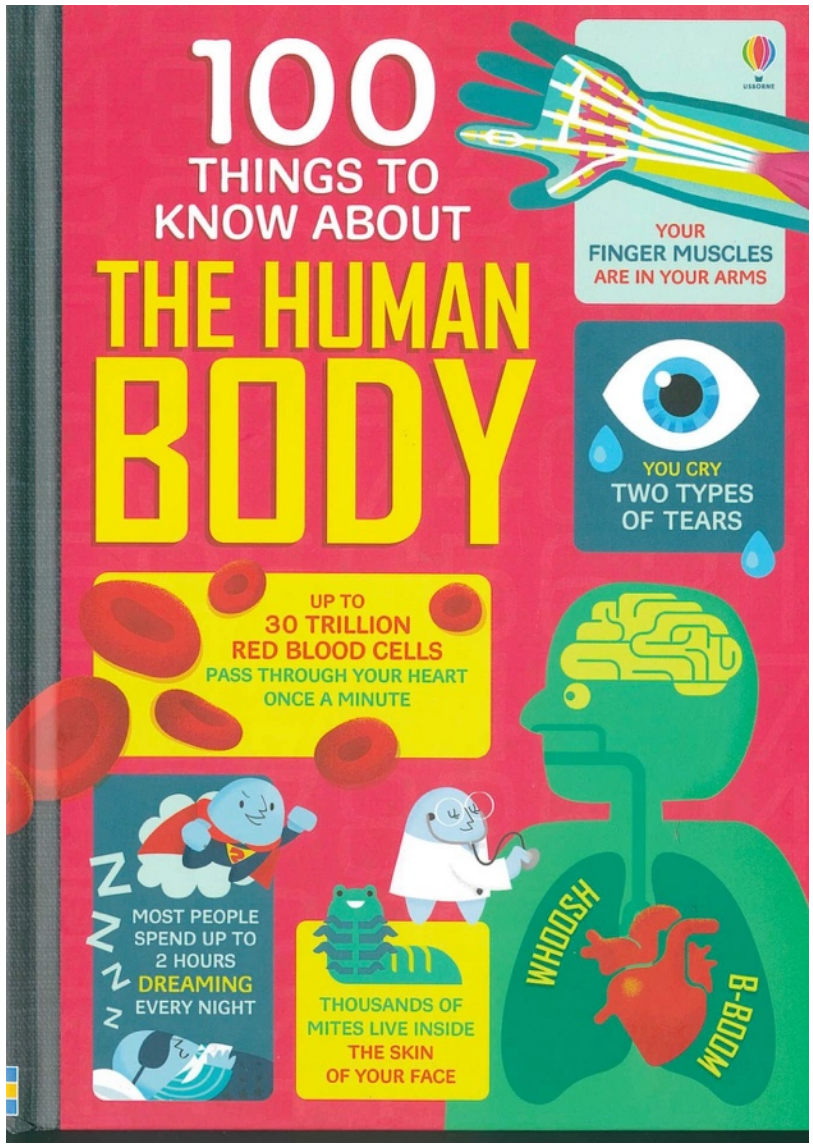
Right:

Sink or Swim: Exploring Schools of Fish: A Branches Book (The Magic School Bus Rides Again)

written by Judy Katschke







Top left:

100 Things to Know About Space

by Alex Frith, Alice James and Jerome Martin

Top right:

100 Things to Know About Science

by Alex Frith, Jerome Martin, Jonathan Melmoth and Minna Lacey

Bottom:

100 Thing to Know About The Human Body

by Alex Frith, Johnathan Melmoth, Minna Lacey and Matthew Oldham



S.T.E.P.
by 陳浩基、寵物先生

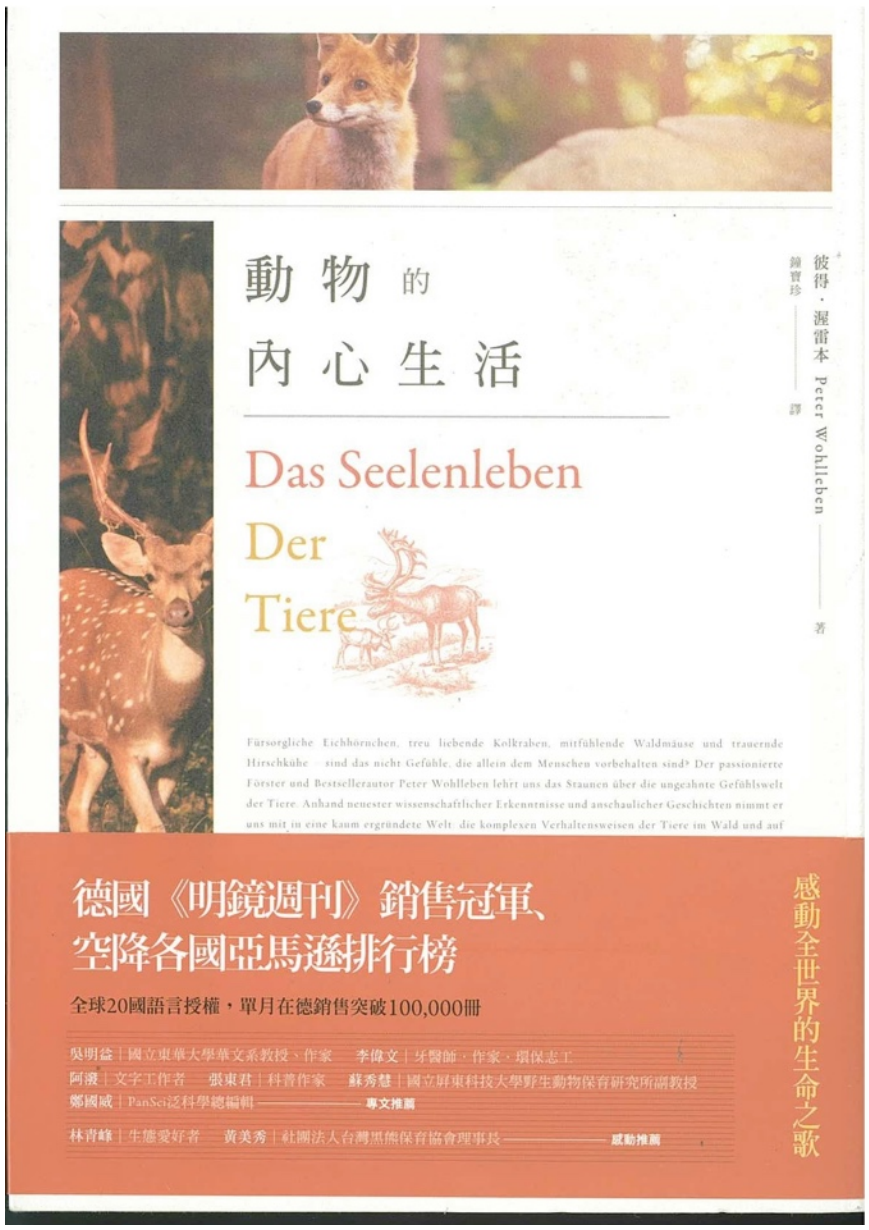
人們的下一步，
將是烏托邦般的零犯罪世界，
彷彿一切都按劇本進行，
但那些劇本，卻沒有一篇不是血腥收場的……

燒杯君和他的夥伴：愉快的實驗器材圖鑑
by 上谷夫婦

實驗室夜驚魂！角色化的實驗器材，用線條簡單卻可愛的插圖及漫畫，搭配幽默有趣的對白介紹，讓你輕鬆開始學習愛上做實驗。







動物醫生的熱血日記：貓咪、倉鼠到蜥蜴，*66*個最新奇動人的生命故事

by 上谷夫婦

每隻受傷的動物背後都有故事！

一個經常與各式各樣奇珍異獸交手的動物醫院院長，

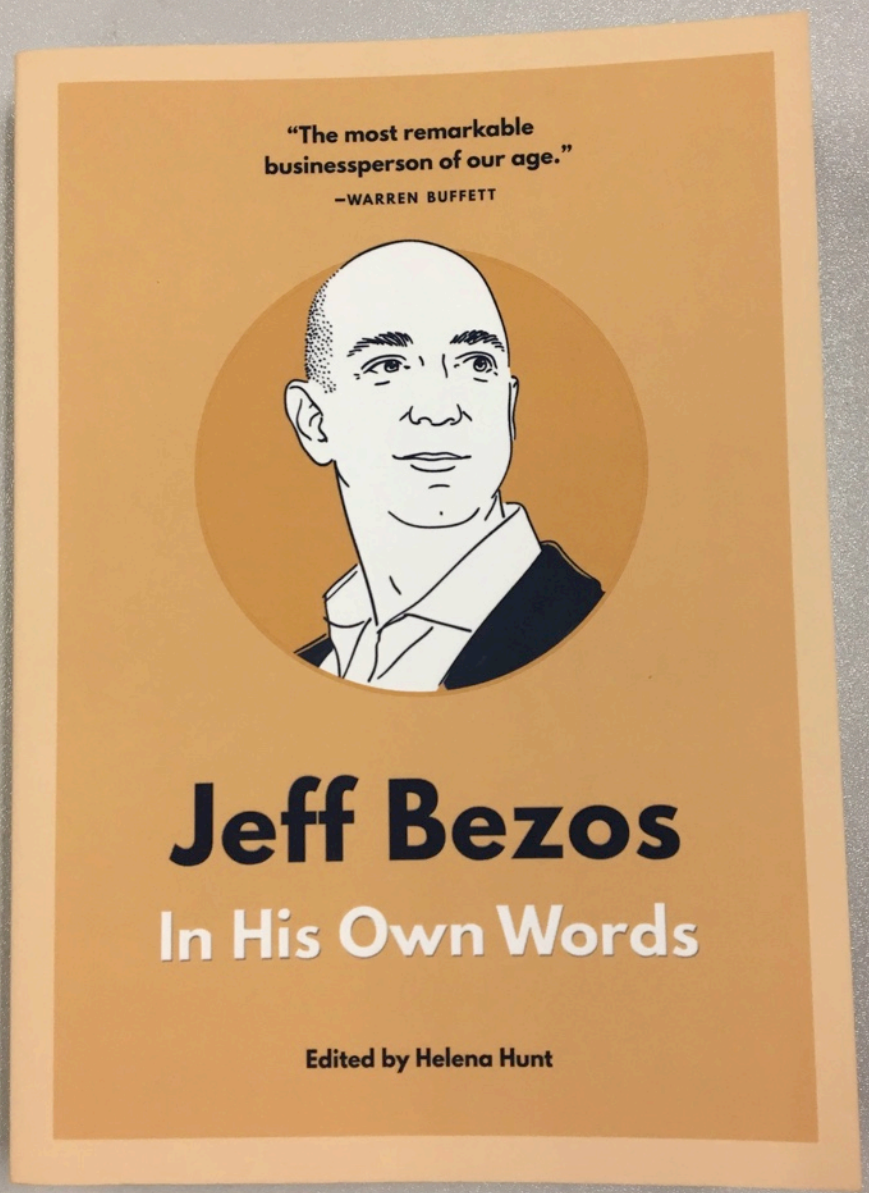
由於愛好動物，從哺乳類、爬蟲類到無脊椎動物，都是他診療的對象。

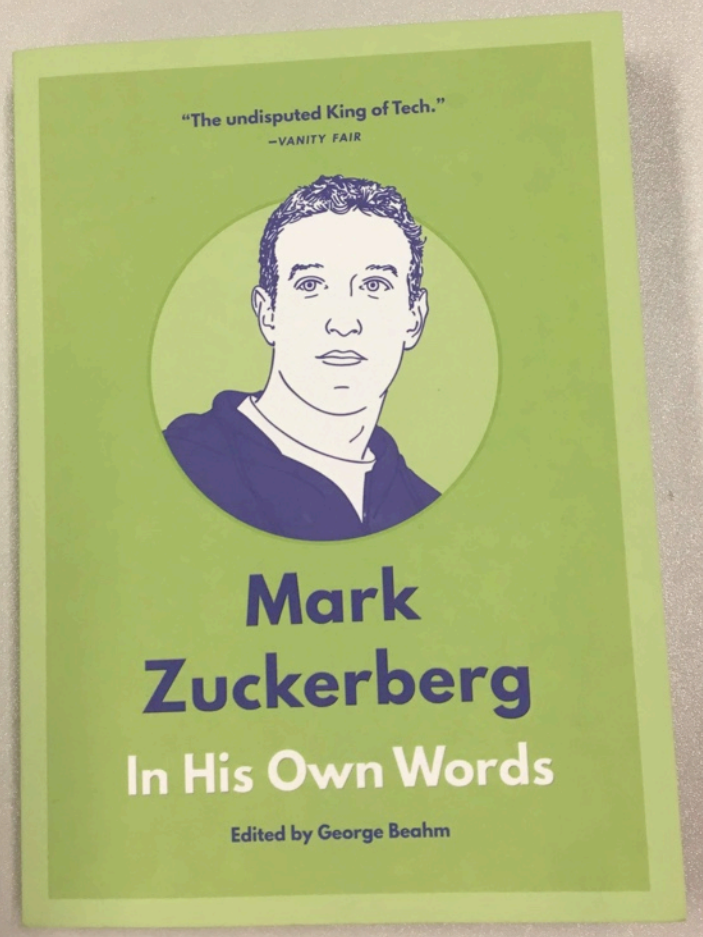
動物的內心生活

by 彼得・渥雷本

渥雷本將動物的心思化為文字，生命在其筆下洋溢著活力與熱情。

「世界上所有對悲傷、痛苦和愛的感受都是一樣的，動物和我們並無二致。」—渥雷本

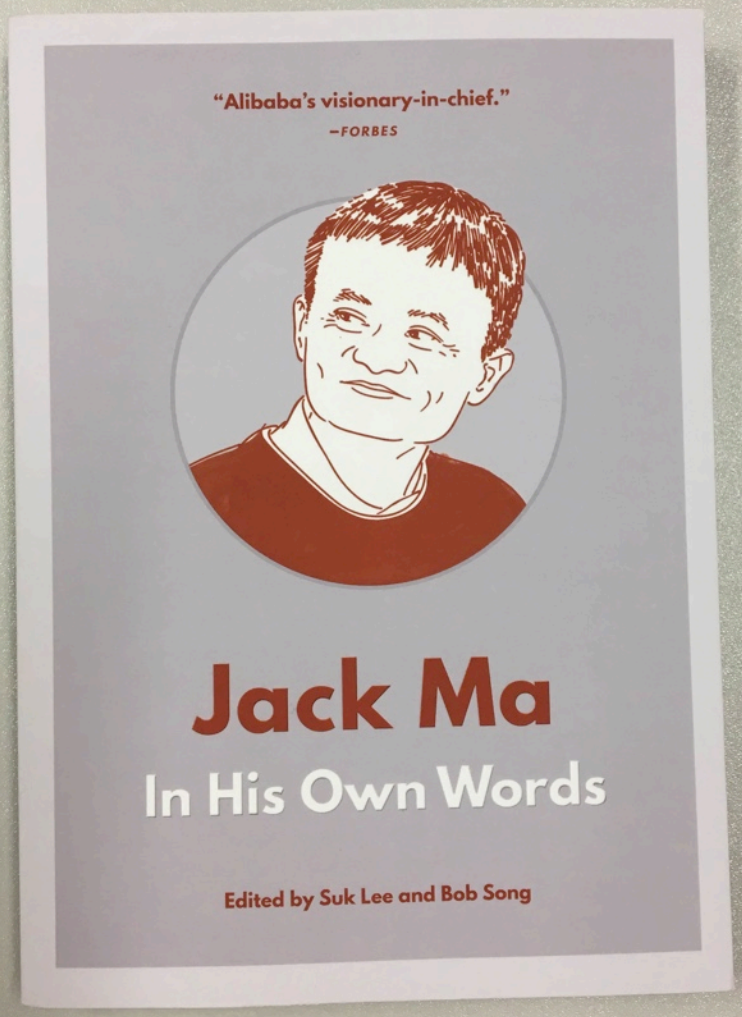


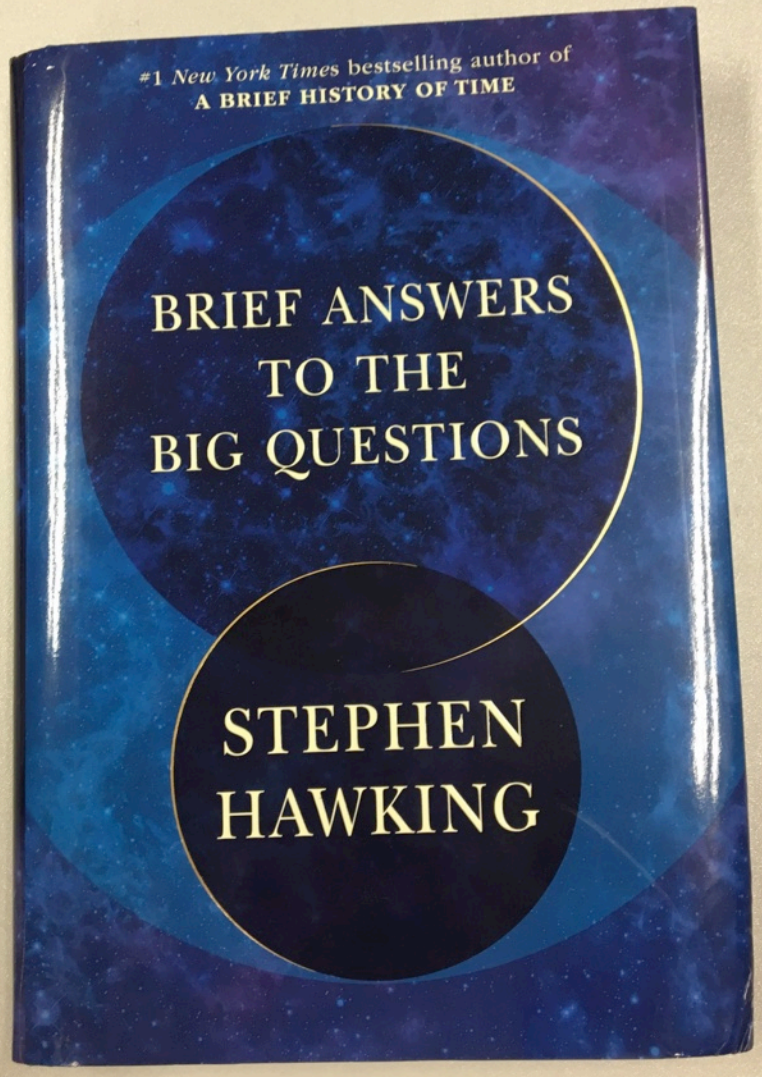


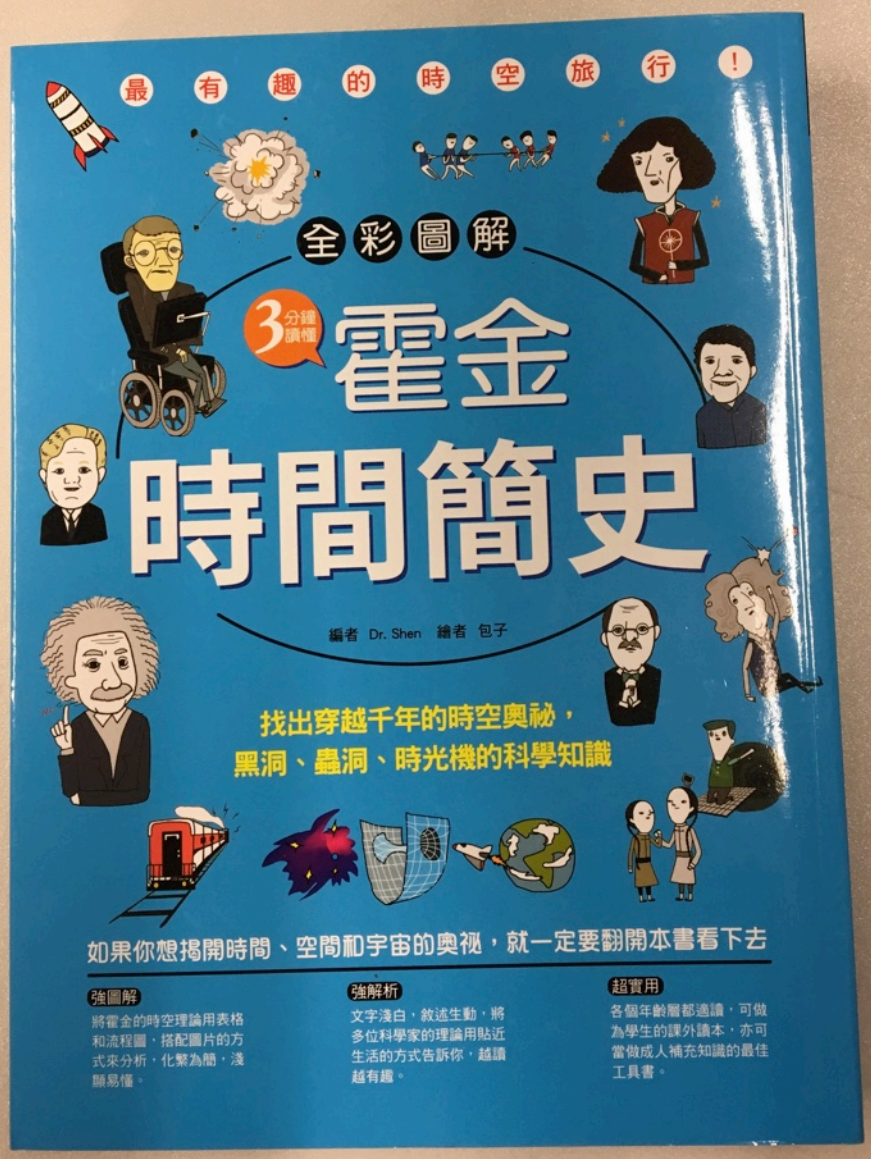
Top left:
Jeff Bezos: In His Own Words (In Their Own Words series)
by Helena Hunt

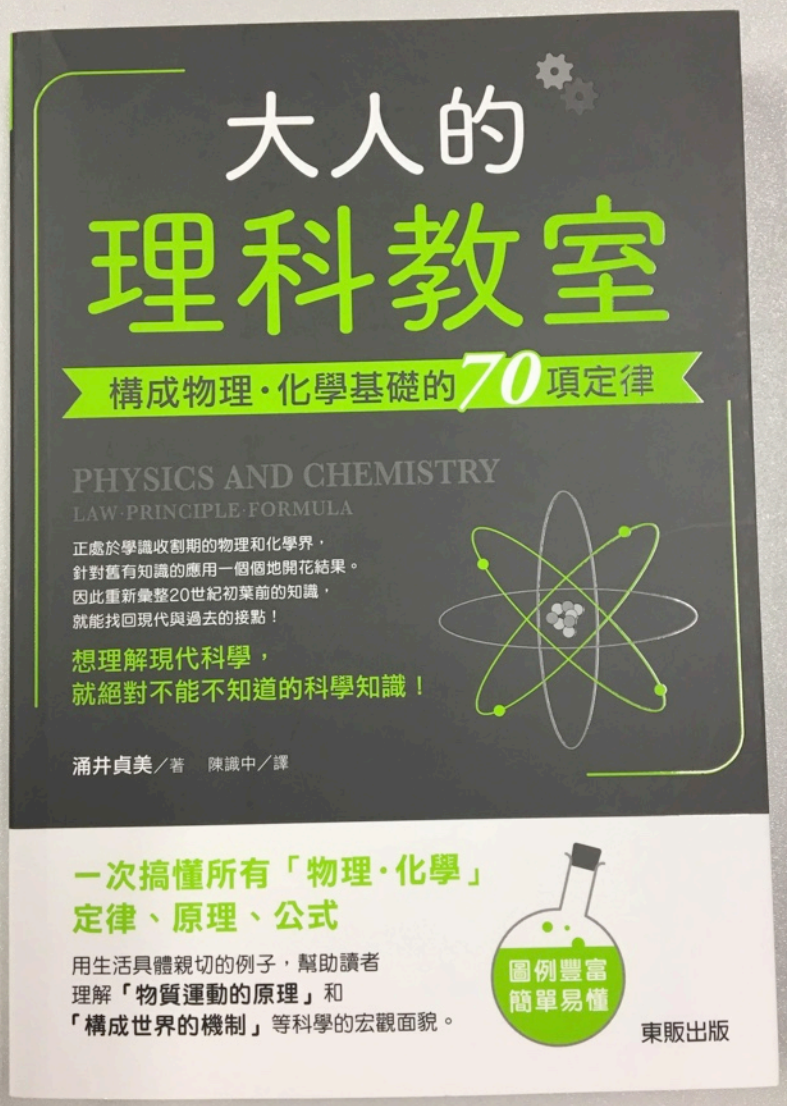
Top right
Mark Zuckerberg: In His Own Words (In Their Own Words Series)
by George Beahm

Bottom:
Jack Ma: In His Own Words (In Their Own Words series)
by Suk Lee and Bob Song









Top left:
Brief Answers to the Big Questions
by Stephen Hawking

Top right:
【全彩圖解】3分鐘讀懂霍金·時間簡史：找出穿越千年的時空奧祕，黑洞、蟲洞、時光機的科學知識
by Dr. Shen

Bottom:
大人的理科教室：構成物理·化學基礎的70項定律
by 涌井貞美

9 FUN & GAMES

P.1 to P.4

The names of 17 animals are hidden in the word box below.

Find out at least 5 of them.

Submit your answers to the link below on or before 1st September 2019. https://forms.gle/kHJbFzcba7NakRYv6

All questions regarding submission of answers can be emailed to lls@smcesps.edu.hk

P	G	O	H	T	R	A	W	G	C	O	E	R
M	N	O	W	O	R	C	H	C	R	T	E	E
M	S	P	C	G	E	C	B	A	O	K	R	E
K	K	O	G	I	O	S	C	Y	C	A	N	Z
A	U	S	S	P	A	C	O	E	O	E	O	N
E	N	S	H	T	O	C	P	G	O	A	O	A
P	K	U	G	O	R	D	A	B	D	D	B	P
C	E	M	N	T	O	I	E	N	C	W	A	M
U	R	E	T	O	U	A	C	P	A	A	B	I
H	X	A	W	C	R	K	P	H	O	U	N	H
Y	C	O	N	H	E	D	G	E	H	O	G	C
K	B	A	F	E	Y	C	C	H	O	C	M	I
E	O	C	H	G	F	B	A	D	G	E	R	D

P.5 to S.2

The names of 17 animals are hidden in the word box below.

Find out at least 10 of them and state one similarity between them.

Submit your answers to the link below on or before 1st September 2019. https://forms.gle/kHJbFzcba7NakRYv6

All questions regarding submission of answers can be emailed to lls@smcesps.edu.hk

P G O H T R A W G C O E R
M N O W O R C H C R T E E
M S P C G E C B A O K R E
K K O G I O S C Y C A N Z
A U S S P A C O E O E O N
E N S H T O C P G O A O A
P K U G O R D A B D D B P
C E M N T O I E N C W A M
U R E T O U A C P A A B I
H X A W C R K P H O U N H
Y C O N H E D G E H O G C
K B A F E Y C C H O C M I
E O C H G F B A D G E R D

S.3 to S.6

Find what ***?*** represents and state a similarity between the letters in the first column.

Submit your answers to the link below on or before 1st September 2019. https://forms.gle/kHJbFzcba7NakRYv6

All questions regarding submission of answers can be emailed to lls@smcesps.edu.hk

C	Be	Se
O	B	I
F	He	?

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