



Dear Parents, Students and Friends

Welcome back for Term 4 – the busiest end of the year where sitting external and internal examinations successfully for all students is our main priority.

This week is the final week in class for our Year 4 students before they go on IGCSE study leave, and next Wednesday is the last day for Year 6. At the final Year 4 assembly on Wednesday, students were thanked for their contribution to school life over their time with us, and were exhorted to make the most of the study leave time over the examination period.

Students were also reminded of academic research involving a synthesis of over half a million research studies which identified the sources of student success and achievement. The meta-study found that teachers contribute about 30% to student achievement. Approximately 50% comes from the student's self motivation, prior knowledge, cultural capital and dispositions. These, in turn, are influenced by the student's home activities, family resources, early childhood experiences and culture, and other environmental factors – the remaining 20%. In other words, teachers and family are very important factors in student success but the single most important factor is still the student.

Some of our Year 4 students will not be returning to school next year, and of course our Year 6 students will move on to higher education or National Service. It is always sad when we say goodbye to members of the school family. Our wish for each student is that they use the study time to maximum advantage; that each performs to their potential in the actual examinations; and that they go on achieve highly at university and the workforce. To those leaving school, we thank them for their contribution to our school community and we wish them well in their university studies and wider future. We trust that they will each remember their time with us with affection, and school being a positive, transforming influence in their lives.

And above all... we remind our students of the encouraging words from Deuteronomy 31:8 to sustain them during the times of examinations and in life generally: "The LORD himself goes before you and will be with you; he will never leave you no r forsake you. Do not be afraid; do not be discouraged."

Best wishes

Rob Burrough



IN THIS ISSUE

- Christian Ministry News
- Long Service Award 2018
- Study Nights
- Year 5 IB Internal Scholarships
- Blazer Donations
- IB, IGCSE & O 'Level' Examination Schedules
- End-of-Year School Examinations
- Transcripts and Testimonials
- Important Information for International Students
- Launch of Saybons' New Menu
- Australian Mathematics Competition 2018
- Visual Arts Exhibition
- Energy Innovation Challenge
- Teachers' Day Celebration 2018
- Ice-Skating Outing
- Oldham Hall Thanksgiving Dinner
- Inaugural Hackathon Event
- Cookie Treat for CL₂ Students
- Joint TCT House and HVMC Charity Event 2018
- Science Department's Learning Journey
- TOK Focus Day 2018
- Sports News
- Upcoming Events



Cows do not have upper front teeth

CHRISTIAN MINISTRY NEWS

Christian Ministry News

On 2 August, Holland Village Methodist Church partnered ACS (International), in its second **Custodians' Day** initiative. Since 2017, the Church seeks to set aside a day each year whereby the guards, canteen stall operators, and cleaners would be recognised for their service to our school community. Rev. Joel Yong, Chaplain-in-Charge, the Principal and Vice Principals, gave out gifts to these faithful custodians and thanked them for all they do, on behalf of the school community.



On 24 August, the Christian Fellowship organised an **Alpha Weekend** – as part of the Youth Alpha Course that they were running. It was well attended by 18 participants, and the students enjoyed themselves and experienced God's touch in their lives, in a deep and meaningful way.



In recognition of the work done by the teachers and admin staff of ACS (International), Holland Village Methodist Church distributed gift vouchers to all of them in late August, in conjunction with **Teachers' Day** celebrations.

On 26 September, some teachers and students gathered together early in the morning to pray for the school and for one another. We began our **Prayer Hour** with a time of worship before breaking into groups to pray.



The Christian Fellowship also played a crucial role in the **Health & Wellness Week**. On 28 September, the focus was on spiritual wellness and Christian Fellowship put up some articles and comic strips in the Student Centre. Our students also sang during both Senior and Junior lunch hours.

On 29 September, Holland Village Methodist Church, partnered ACS (International) again, for the second year running in its **Choice To Run** event, a charity run to raise funds for the Children's Cancer Foundation. Rev. Joel Yong spoke on behalf of the church and reminded everyone of the part we have to play in remembering those who are ill and who are in need.







STAFF NEWS

Long Service Award 2018

Congratulations to our staff who have faithfully dedicated 10 years of meritorious services to the school! We are so proud to have them with us and may they enjoy more fruitful years in their career with the school.



LONG SERVICE AWARD 2018



From left: Ms Cheryl Seah, Mr Ang Chew Yan, Ms Rita Kaur, Mr Gregory Goh and Ms Hilda Toh



NOTICES

Study Nights

Study nights run from 4 October to 13 November, every Tuesday and Thursday, at the school library. The extended hours till 8:00 pm are solely for Years 4 and 6 students. No other students will be admitted so as to provide a conducive environment for the Years 4s and 6s.

Students are reminded to dress in school attire when using the library. School related shirts, such as the polo tee and House t-shirts are permitted, and must be worn with the school pants or skirt. PE shorts are not allowed. Students in the wrong attire will be asked to change out before being allowed entry into the library.

Parents who would like to help contribute towards catering for the study nights can contact Debra from the PSP at leong.debra@gmail.com or 9628 0190. Any help will be most appreciated.

Year 5 IB Internal Scholarships

Thanks to the 29 Year 4 students who submitted their application. The standard was uniformly high with the panel finding it difficult to reduce to a long shortlist for interview. The panel will notify all applicants of their application outcome next week after 10 October.

Blazer Donations

Leaving students are requested to donate their old school blazers to the school for "recycling". They can deposit their blazer at the front office for the PSP to dry-clean and on-sell.

IB, IGCSE & O 'Level' Examination Schedules

The key dates can be found on the school intranet via the following URL:

https://intranet.acsinternational.edu.sg/api/subwebs/?id=37

End-of-Year School Examinations

School examinations for Years 1, 2, 3, 5 plus Pre-IG, Pre-IB and FIB students begin on Thursday, 25 October, and end on Monday, 5 November. Classes resume after Deepavali on Wednesday, 7 November. Student need only attend school for their actual examinations during the examination period and must report to school for their examinations in full school uniform.

Transcripts and Testimonials

This is the time of the year we begin to receive requests of these two documents. The Academic Secretary, Ms Manwant Kaur, will process these requests upon receipt of the completed transcript and/or testimonial application form, which can be downloaded from the website (Current Students — Forms). A period of 10 days is required to process any document. We regret that we are unable to respond to any request to produce them immediately.

Year 6 students will automatically receive these two documents at the end of the school year. They only need to apply for these documents if they are applying to university before year end.

Testimonials are only available for Year 6 students, and Year 4 students who are leaving school. School leavers in other year groups can only apply for a school transcript summary of all school reports.



Important Information for International Students

A few matters to note:

2019 Term Dates

The 2019 term dates can be found on our school website. Click here and scroll down, below the 2018 term dates.

Hostel Withdrawal and Homestay Accommodation

With effect from January 2018, it is mandatory for international students to stay one year in Oldham Hall or ACS (Independent) Boarding. Here's a step-by-step guide on withdrawing from current hostel accommodation up to signing the new homestay contract:

Step 1:

For students who have fulfilled the one-year stay, the cut-off date to inform the respective boarding hostels on withdrawal is as follows:

Oldham Hall: Notice must be given no later than **16 October**. Failure to do so would result in the forfeit of the deposit paid.

ACS (Independent) Boarding School: Notice must be given no later than **22 October**.

Step 2:

Students can only move into one of the homestays on the homestay list recognised by the school. The homestay list is available on the noticeboard outside SB4-1 and is updated periodically. Hardcopies can be obtained from Ms Stacey Low.

Step 3:

Once students have decided to go with the homestay option, they should make a visit to a few homestays to speak with the homestay provider(s), check out the environment and food options.

Step 4:

After reaching on a decision on the preferred homestay provider, students are to see Ms Stacey to get a "notification of withdrawal from hostel" form. She would follow up with a phone call to the parent/guardian to ascertain the intention of accommodation change (from boarding to homestay) and the preferred homestay provider.

Step 5:

Students are to submit the completed form, together with the hostel's withdrawal form, to the hostel.

Step 6:

All parents/guardians are to sign a contract with the preferred homestay provider and to keep a copy of the contract as well.

Guardianship

The school has a list of approved guardians, available from Ms Stacey.

<u>Insurance</u>

The school is in the midst of securing quotations for 2019. More details will be provided nearer year end.



Launch of Saybons' New Menu

From the corner shop, Saybons has taken over the bigger space on the right side of the canteen from September. Newer, wholesome menu items, for the enjoyment of all students, staff and the wider school community are now available.

While traditional favourites such as the media-acclaimed French-styled soups and crepes are retained, the brand has launched a grain/salad bowl category, wider pasta and baked rice varieties and more wholesome beverage options. Saybons also aims to launch tasty homemade burgers in 2019.



Saybons is also making a commitment to the school by running one of their islandwide catering kitchens from our canteen's kitchen. This allows them to effectively support school events with their range of wholesome food, and can even look at conducting culinary, nutrition or food entrepreneurship workshops for students.



Also available are live crepe and live pasta stations. Check them out today!



To celebrate their re-opening, Saybons is offering a \$50 discount if you order your first catering event by 31 December, valid for all our students, staff, parents and alumni. Details as follows:

Promo code: YUMMYACSI (please state at the point of booking)

Telephone: 9151 3132

Email: catering@saybons.com/catering



STUDENT SUCCESSES

Australian Mathematics Competition 2018

The Australian Mathematics Competition (AMC) sponsored by the Commonwealth Bank has been held annually since 1978. One of the largest annual events on the Australian education calendar, the AMC is one of the largest of its type in the world. More than 40 countries participate each year.

The competition aims to be accessible to all students from Years 1 to 6, not just the mathematically gifted. There is an emphasis on problem solving, a valuable life skill, and the questions are designed to be fun for the student. The AMC consists of three separate papers, each with 30 questions in the Junior (ACS Years 1 and 2, Australian Years 7 and 8), Intermediate (ACS Years 3 and 4, Australian Years 9 and 10) and Senior (ACS Years 5 and 6, Australian Years 11 and 12) divisions. Time allowed is 75 minutes.

Over 1,000 students share the prizes and around 50% of participants qualify to receive a Certificate of High Distinction, Distinction or Credit. All other entrants in the competition receive a Certificate of Participation or a Proficiency Certificate. All students are also provided with a detailed report showing how they have performed on each problem with wider statistical rankings.

On 13 August, 38 of our students (Years 1 to 6) took part in AMC 2018. The list of High Distinction and Distinction award recipients for ACS (International) is shown below:

Results		
Name	Division	Award
Zhang Ruiyang	Senior	High Distinction
Ethelyn Huang Meici	Junior	Distinction
Roy Kawaguchi	Junior	Distinction
Justin Cheng Ming Hearn	Intermediate	Distinction
Chia Fui Rupert	Intermediate	Distinction
Cheng Xirui	Intermediate	Distinction
Aarthy Narainy Ravichandran	Intermediate	Distinction
Park Ju-Hyun	Senior	Distinction
Hu Yuwei	Senior	Distinction
Eun-A Jo	Senior	Distinction

We thank all our 38 students for their effort and participation, and congratulations to the above 10 students for their outstanding performance.

Visual Arts Exhibition



Eight artists from the 2018 Visual Arts cohort curated and put up a dazzling display of art works in celebration of the successful completion of their course. The opening event on 28 September was well supported by the various divisional Vice Principals, teachers, students, friends and family members of the artists.



The students worked very hard and put together a wonderful display of their talents in a myriad of art forms, exploring the use of interesting and unusual materials. The art works are personally relevant, politically-charged, and imaginative, while some reflect the students' awareness of the environment and the places they have lived in.

The exhibition, entitled "Aesthetics", runs till 5 October, at the Art Department, Level 5, Library block.

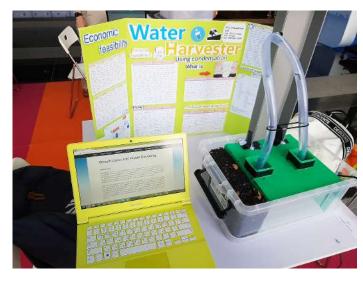






Energy Innovation Challenge

This year, four teams from Year 5 participated in the Energy Innovation Challenge. The competition was jointly organised by The Institution of Engineers, Singapore (IES) and the Science Centre Singapore (SCS) with the support of the Ministry of Education (MOE). It spanned over a few months from March culminating in the week of the National Engineers Day in August.



The students designed a product based on the challenge of the Smart Energy Solutions. They took part in high-intensity events and workshops as a run-up to the challenge. Two teams reached the finals of the competition and one of the teams won the Merit Award. Teams were judged by the end product, the power of team strategy and collaboration, and the determination of the students.

The Merit Award winning team consisted of Kim Tae Hyeon, Kim Min Jun and Ham Ji Won. Recounting his experience at the competition, Kim Tae Hyeon said, "Our product, the Water Harvester, was designed to recycle water. We did a lot of research to understand the background knowledge needed to develop a working prototype. In the course of this competition, we were able to build our self-confidence and collaborative skills."

The other finalist team consisted of Bu Yifan, Shen Zihan and Miu Hataya. According to these students, "It was a learning journey to find out more about science and technology and to discover the spirit of innovation. We designed a Heat Bag to control heat energy and help electrical appliance to work more effectively. We had to come up with innovative ideas to build the prototype. It was something new and challenging."







PSP NEWS

Teachers' Day Celebration 2018

Lights! Camera! Action! The PSP rolled out the red carpet to welcome senior management, teachers and staff to a very special movie-themed Teacher's Day lunch celebration at the Singapore Swimming Club on 31 August.



In response to the invitation to come dressed as their favourite movie characters, many guests donned elaborate costumes and theatrical make-up to portray famous movie characters such as Edward Scissorhands, Jack Sparrow, Wonder Woman, Wednesday Addams, various Star Wars characters, etc. Even our beloved VP, Mrs Tan Siew Hoon, got into the act and came dressed as a fun-loving minion!

The afternoon's festivities kicked off with a leather-clad Elvis Presley belting out classic hits such as *Jailhouse Rock* and *Love Me Tender* while everyone dined on a sumptuous four-course lunch in the lavishly decorated ballroom. Fun and games galore followed thereafter with a nail-biting movie quiz, impromptu performances by talented dancers and singers including Mr Peter Thompson, Ms Caroline Heng, Mr Rajan, Ms Chang Hung Tho, and Mr Mike Patterson and his colleagues from the PE department plus an exciting lucky draw which saw guests walking away with fantastic prizes contributed by generous and supportive parents.





One of the highlights of the event was the amazing photo booth which drew long queues for photo opportunities with colleagues to create precious memories captured on camera. Everyone had a blast dressing up in feather boas and other quirky accessories and hamming it up for the camera! And what's a party without a Best Dressed contest? Attractive prizes and trophies were awarded to many guests who had put in so much time and effort to dress to the theme, including a very creative Team Jamaica from the movie *Cool Runnings*, complete with a full-sized handmade bobsleigh!

The event ended with a heartfelt speech given by our principal, Mr Rob Burrough, thanking all teachers and staff for working tirelessly throughout the year and also expressing his gratitude on behalf of the school to the PSP Exco members who had planned and executed the event. It was indeed a day to remember and we were glad that the teachers and staff could let their hair down and enjoy a much deserved celebration in honour of their selfless love, dedication and care for all the students in our school!



PSP would like to say a BIG "Thank You!" to the following parents and guardians for their generosity, without whom this event would not have been possible:

Akash Sharma	Lo Elfrieda
Alvin & Lynette Chan	Michael Tan
Alysia Ling	MNJ Hearn
Amelia Ong	Jessica Leong
Apama Mahtani	Mrs Yuen
Beena Haji	Ms Khue
Charissa & Mark Buchanan	Nguyen Hien Minh Trang
Creek & Darren Tan	Kan Pau Kim
Deanna Wong	PK Samy
Deepali Jethnani	Pongthep Sootthipong
Desmond Tok	Regina Lee
Esterine	Reliable International Students Consultancy
Hangao	Riana Ang
Jessica Hung	Sakurawaty
Jia he	Shinkichi Nakamura
Joebelle Chew	Srinivasan
Joseph Ng	Susan Foo
Josephine Oei	Tan Hui Ping
Julie Lim-Kalisch	Tim
June Lee	Tracey Lim
Ko Heewon Joan	Vicky Tan
Lee Beyongha	Vikas Nahata
Linda Doalim	Wendy Yeo
Liu Te Chih	
·	







INTERNATIONAL STUDENTS NEWS

Ice-Skating Outing

During the September holidays, an ice-skating outing for the international students who stay in Singapore was organised.



On 5 September, 10 of us were accompanied by Ms Stacey Low to The Rink in JCube shopping mall at Jurong East. Many of us started out not knowing how to skate but looked forward to learn something new.

Despite falling over several times, we all had a lot of fun, and learnt how to skate, of course. The other highlight of the day was enjoying delicious food at Eighteen Chef before the ice-skating session itself!



On behalf of all the students who attended the outing, I would like to thank the school for creating the opportunity for us to have so much fun. We all look forward to the next event.

Julie Park Ju-Hyun, 5 SVM

Oldham Hall Thanksgiving Dinner

The Senior Leadership Team of ACS (International) were invited to attend the annual dinner held on Friday, 21 September. It was a great night reflecting and celebrating all that has happened in the life of our Oldham Hall boarders over the past 12 months.

Giving out awards to various boarders who have been integral to the Hall's well-being is an important part of being thankful. Many of our awardees hail from ACS (International), and they serve in multiple capacities including being Cluster Captains, leaders of the various clubs, members of the Students' Council and more.



This year, the Female Boarder of the Year is Trieu My Han, a Year 6 student at ACS (International), as she has been outstanding in all aspects throughout the year. She received her prize from Mr Arthur Lang, CEO International of Singtel. Wang Yujia, a student who just

joined us this year, also won the New Boarder Award for being an exemplary new boarder in the Hall.

ACS Oldham Hall is truly grateful to all our boarders' contributions for making the Hall a home away from home.



Service Awards	
Beverly Njio	
Doan Ngoc Linh Dan	
Heo Min Joon	
Jesselyn Stella Rucita	
lesslyn	
lin Kawaso	
Jung Yunseo	
Keiji Yamamoto	
Kim Jung Eun	
Kwon Yoosung	
Lam Uyen Van	
Le Nguyen Nhat Minh	
Lee Youmin	
Nguyen Le Gia Han	
Sun Yu	
Thanakhom Hoontrakul	
Thanaporn Prayoonrat	
To Ha Linh	
Virawin Hanratanakool	
Vo Hoang Long	
Vo Lai Thanh Vy	
Wang Yujia	

Merit Awards
Chau Nguyen Khanh Giao
Nair Ngo Nhu Anh
Ryoko Fujii
Trieu My Han

New Boarde	r Award
Wang Yujia	
Wang Yujia	

Boarder of the Year	
Trieu My Han	



EVENTS AND WORKSHOPS

Inaugural Hackathon Event

The ACS (International) Coding CCA group initiated a Hackathon event on 25 August held in Oldham Chapel, co-sponsored by Tinkertanker.



40 participants were tasked to produce a solution within six hours on the day of the competition, and to make a short pitch, expounding upon what they had created. A set of possible problems created by our students was released, and the participants were allowed to choose any of the five (given) scenarios to pursue. In the morning, Dr Keith Carter, an associate professor at the NUS School of Computing, shared on the future of artificial intelligence with a short demonstration of a simple but useful idea. His inspiring speech encouraged the participants immensely, and set the tone for the hours of problem-solving that lay ahead.



The final result of the coding competition is as follows:

- 1st: Unicorn (Malhar Kamat, Sarvasv Kulpati and Samarth Upadhyaya), a OFS & UWC joint team
- 2nd: Aurellium (Yee Jia Chen, Chong Han Yi and Shannen Samuel Rajoo), School of Science and Technology
- 3rd: MingLee (Clement Low Hung Wee, Aloysius Woo Rui Yang, Yee Hao, Kelvin Fong Koi Mun and Soh Zheng Da), Temasek Poly

Cookie Treat for CL₂ Students

On 30 August, Chinese lesson was different for two classes of about 40 students. We invited guest instructor, Ms Shirleen Yap, founder of Oh My Desserts!, to conduct a workshop on cookie decoration.



Ms Yap shared her experience as a young entrepreneur and baker, and patiently guided students through the steps to decorate cookies for their teachers (as Teacher's Day was then just around the corner). We were glad to teach Chinese in a different setting, and the students' enthusiasm was the best reward.



Reflection of students

During the lesson, Ms Shirleen taught us how to draw borders, write words and do different decorations such as apple, and marking on a cookie. With this skill, we were able to draw a whiteboard design on the cookie.

Some challenges we faced with drawing the borders were having to work quickly as the icing would dry up very fast. When writing words, we could not drag the piping bag onto the cookie as the icing would just be stuck on the piping tip! After decorating the cookies, we all waited eagerly for the icing on the cookies to dry. Overall, we were all pleased with the experience and hope to have more activities such as this again.

Natalie Qiu Xuan Heng, 1 CKS

During the lesson, we were given two cookies — a star and a whiteboard. We had to decorate them for Teachers' Day to give to our teachers. It was very fulfilling to learn the technique, being an avid baker myself. The guest teacher, Ms Shirleen, also told us that Chinese is really important because she uses it to converse with many of her customers.

Overall, this lesson was very fun and I thoroughly enjoyed myself.

Ashleigh Catherine Long Yee Hearn, 3 GHK



Joint TCT House and HVMC Charity Event 2018

On 12 August, we held the TCT charity event, which consisted of a 30-minute performance and a bazaar, to celebrate National Day with Commonwealth area residents, in collaboration with Holland Village Methodist Church (HVMC). The aim of this event was to bring joy to the residents of the neighbourhood by entertaining them with multi-cultural songs and plays.





During the performance, the crowd roared in approval as a lady danced her way up to the stage with the brightest smile on her face. Laughing, singing with all our might and dancing the most "lunatic" moves, we felt "at the top of the world". "Humma" was the title of the Tamil song that Anjana and I sang, and the crowd was definitely in awe. About 500 residents came pouring into the Sports Hall for the bazaar thereafter, all excited to take back home free things which ranged from toys to Pandora jewellery!

This event has left many memories that I will treasure. For instance, getting cardboard boxes from Value Dollar so that we could cut them up and paint them to look like grass and waves. Or mixing the sound effects for the Sang Nila Utama play to the point where even a scene where the main character was walking up a hill became tremendously epic. Seeing the residents react in such a positive way filled us with a sense of pride and accomplishment. It was heart-warming to see that the extra effort we had put into this event had paid off. I hope they had enjoyed watching the event as much as we had enjoyed performing it.

For the baazar, setting it up with hundreds of bags of clothes reminded us of the importance of good teamwork and communication. Together with the help of 60 volunteers from HVMC, our House of 40 members had assembled and organised heaps of items, food and clothes into different sections of the Sports Hall. Personally, I was surprised to see that many branded clothes. It was heart-warming to know that people had donated not just basic necessities.

It was truly touching to see the happy faces of the residents as they received goodie bag and gifts from the church. We hope to be able to do this again as a way to give back to our community, to reach out to those in need and to ensure that we as a Christian school and strong House would do everything we can to make them happy.

Siobhan, 5 TCT





Reflections from other students

I learned a lot of valuable skills from the TCT Charity afternoon, such as setting up a bazaar with hundreds of bags of clothes, the importance of good teamwork and communication and how to work under time pressure. The performances given by my fellow House members were very entertaining and though I didn't participate in any entertainment item, I helped to make props. Overall, I think the House charity helped us feel more bonded as one.

Sara Goh, 5 TCT

The TCT charity event was very memorable and meaningful for me. It was heart-warming to see the happy faces of the residents as they received gifts from the church. I hope that we will be able to do this again as a way to give back to those in our community who are in need.

Jade Chang, 5 TCT

The charity event is meaningful. It's an opportunity for me to contribute to the community. I performed a Chinese song for the residents during the event. When I saw them enjoying our performance, I felt a great sense of satisfaction. I am proud that I could be able to contribute as an individual and work together with teachers and peers to help those in need.

Wang Zuoyu (Lucas), 5 TCT



Science Department's Learning Journey

A group of 40 IB students, led by six science teachers took part in this year's One-North (STEM) Festival on 7 September, organised by A* STAR, JTC, Science Centre Singapore and Mediacorp.

This festival showcases the innovations by Research Institutes, media companies and start-ups in one-north and beyond. The students participated in a few A* STAR's lab tours featuring Experimental Therapeutics Centre (ETC), Singapore Immunology Network (SIgN), and p53 Lab which showcase award-winning inventions and cutting edge in-house innovations at FusionWorld. They also get up-close with the inner workings of A* STAR's labs (which are usually off-limits to the public).









Reflection by students

Singapore Immunology Network (SIgN)

The scientists presented their works, showing us a glimpse of what they do on a daily basis in the labs. In addition, we got to know more about the types of antibodies present in humans and observe a hands-on activity where they identified an IgG antibody isotype. One of the researchers also talked about the use of fluorescent dyes to trace the rate of cell cycles in the body which was remarkably intriguing.

Claudia Novita, 6 CKS

p35 Lab

The focus is on gene therapy to reduce the risk of cancer. We looked at different tools to aid in cancer research. One such device is a luminescent microscope, which allows scientists to identify proteins and cells which are tagged with luminescence. Another tool we students explored was using a strip to find the identity of the antibodies present in the solution. We also attended a talk about using AI to develop personalised beauty care, which is used by *Olay* to help its customers find the best product for themselves. It was very informative as we were able to deeper understand how mass amounts of data can be used for analysis of an individual.

Jade Chan, 5 SVM



Al Seminar

Al and I. Man and Machine. The technological pursuit for artificial intelligence (AI) has been a constant topic of hot debate in recent years, even outside of the scientific community. Is it the next big thing or the beginning of the end for human life as we know it?

With Hollywood directors producing movies such as the blockbuster hit "Terminator" series, which depict apocalyptic worlds where machines have taken over, it comes as no surprise that the general public would have such a negative opinion on the matter.



Professor Kenneth Kwok's talk, however, has made it clear that such worries are to be saved for the far, far future. There are two forms of AI: AI and general AI. General AI is the version which most of us think of when we talk of the apocalyptic dangers we see in movies and comic. However, that is all they are - fiction.

By enlightening us on the intricate workings that lay behind the function of even the most common forms of AI, such as Siri and Alexa, we got to see just how hard it would be to come anywhere close to the realm of general AI. We are certainly making progress, but it is still all on the surface level. Though, there is often news as to how AIs have been beating human experts in board games, video games, etc., Professor Kwok explained how they are still far from "intelligent", only able to "learn" and win under very specific pre-set conditions. Yet, developing this aspect is meant to actually be the easier part.

The true challenge comes in trying to scale the barrier that separates machine from man, the human conscience. Social awareness, moral sense, emotional perception – these are but a few of the traits unique to us humans which make us "sentient". It is difficult to tell where to even start with such a daunting task. You would essentially need to create an artificial replica of the human brain, in all its complex glory as one of the most highly-evolved marvels in the animal kingdom. With our current level of technology? *Utterly impossible*.

This scientific struggle is what makes Als so ethically questionable. Take self-driving cars for example, although they have been proven to be very clearly superior to human drivers, one fatal accident is all it takes to shake society's perception. All the news headlines covered how a self-driving Uber had failed to recognise and killed a passing female cyclist. Suddenly, statistics don't matter anymore. Nearly 1.3 million people die in car accidents every year, but who is to blame when there is no one behind the wheel?

AI OR I. Man OR Machine. We have made great progress in AI development, but is that truly what we should be doing? Are we ready to integrate manufactured sentient beings into our society? Are we ready to place our lives into artificial hands? And with those questions in mind, we left the theatre more perplexed and doubtful than when we had begun.

Experimental Therapeutics Centre (ETC)

At the A-star research lab, we got to witness such an advancement in the form of high throughput screening. By automating the entire screening process and minimising human interaction, the scientists are able to test the effect of 50,000 compounds (small molecule drugs) on a target enzyme in a single day. Particularly, eye-catching technological optimisations that have helped to minimise the screening process include the use of robotic arms manoeuvring using air pressure instead of gears and ultrasound nano-liter pipetting in an acoustic device.

Such developments have allowed the A* experimental therapeutically centre to develop the drugs ETC-159 and ETC-206, Singapore's first two publicly-funded drug candidates. Delivered in the form of pills, these candidates may potentially revolutionise the cancer treatment process so that traditional chemotherapy is no longer needed, paving the way for a safer, faster, and more effective alternative.





Who knows what else may lay in store? As students look to pursue further study into science, getting to see the workings of one of the most prestigious laboratories in Singapore was an extremely insightful experience. It opened our eyes to the potential of not just the biomedical industry, but Singapore as a hub for innovation and invention. "Big problems have small solutions", and small though this country may be, what we saw was no mini scale testament to that fact.

Russell Scott Indradjaja, 6 Thoburn



TOK Focus Day 2018

On 13 September, eight Year 5 students attended the TOK Focus Day 2018 event organised by ACS (Independent). The theme was Religious Knowledge and the Natural Sciences — Two Sides of the Same Coin?

The programme began with Dr Paul Gallagher – a guest speaker from McMaster University – giving an insightful introductory presentation revolving around the recession and subsequent resurgence of Religious Knowledge in the $20^{\rm th}$ century and its interplay with the Natural Sciences. He cited communism as a force that acted towards the modernisation of society and which was a catalyst in furthering scientific knowledge. But in this day and age of alternative facts, it seems that truth is more malleable and relative that ever before.

Subsequently, a panel discussion was held wherein students volunteered to ask TOK-related knowledge questions — discussing the inter-relationships between Religious Knowledge and the Natural Sciences — which were answered profoundly by the accomplished panellists.

In the past, Religious Knowledge systems used to incorporate empirical claims but over time, the Natural Sciences have restricted religious knowledge systems to making only non-empirical and non-falsifiable claims. On the other hand, Natural Sciences involve faith to a certain extent as well in that we believe in the scientific method and in the data and observations made in experiments. It was finally established that these two areas of knowledge can indeed co-exist because they make different types of claims.

Gautam Ramasamy, 5 GHK



The TOK Focus Day was an eye-opening experience as I could discuss knowledge in Natural Sciences and Religion with notable guest speakers and clarify some of my doubts in the falsification of knowledge in these two areas of knowledge (AOKs). I learned to look at the two AOKs from a new perspective which I have never realised before. I was inspired by the range and depth of the discussion, and am ready to tackle the TOK presentation based on what I learned from the workshop.

Julie Park Ju-Hyun, 5 SVM

Given that my topic is on Religion and Science, the TOK workshop was useful for me to confirm the claims and counterclaims that I've used in my presentation. The lecture really put religion and science into context, and the panel discussion that came after was a twist off what I expected, but it served to clarify the doubts I had about my topic. Overall, I am grateful for the opportunity and would recommend it to anyone who has the same topic as the workshop's focus.

Sunny Singh, 5 Thoburn



SPORTS NEWS

National School Games 2018

2018 has seen ACS (International) enter more students into the MOE National School Games competition than ever before.

We have a growing group of students who are working hard, giving up their time outside of school to prepare and train hard for these games each year. This year, we have had students represent the school in the following National School Games events:

Golf



C Div Boys Individual event: Yu Hang Lau C Div Boys Team event: Javier Tay and Ming Hong Liu 4th place

WushuShinn Ng, 3 Thoburn, earned a bronze medal



B Div Boys: Shinn Ng - 1st International Nan Gun 5th Place, 1st International Nan Dao 3rd place, 1st International Nanquan 5th place; Shaun Teo, 1st International Cudgel 12th place

A Div Girls: Amelia Lynge – 1st International Cudgel 3rd place, 1st International Sword 3rd place

Track & Field





18

A Div Boys

A Div Girls

C Div Girls: Tong Jing Ning – 800m Heats
B Div Boys: Michael Lam – 1500m Heats
B Div Girls: Chloe Chiang – 200m Heats

A Div Boys: Yokesh Kandasamy – 100m Semi-Final, 200m Semi-Final; Ryan Lee – 800m; Mingyu Chun (Mike), Michael Lim, Ryan Lee, Yokesh Kandasamy – 4x100m Relay 10th place A Div Girls: Abigail Tan, Mook Wanichnopparat, Lynne Kunak,

Camille Damas - 4x100m Relay 11th place

Finalists

C Div Girls: Tong Jing Ning – 1500m 12th place B Div Boys: Dominic Foo – Shot Put 12th place

B Div Girls: Alyna Lim – Shot Put 17th place

A Div Boys: Akshay Anand – Shot Put 9th place; Javen Lai - High

Jump 6th place

A Div Girls: Camille Damas – 100m 3rd place, 200m 4th place;

Qianye Chen (Linda) – Long Jump 18th place



Camille Damas, 5 CKS, won a bronze medal

Rhythmic Gymnastics

B Div Girls: Bethel Loke – Level 5 (Secondary) Clubs 18th place



Ten Pin Bowling

B Div BoysSingles: Kosit Phromtarawong (Pooh)



Fencing

C Div Boys: Elroy Eng – Foil Last 32, 19th ranking; Hoi Chon Hei (Derek) – Foil Quarter Finalist 5th ranking

A Div Boys: Alasdair Low – Epee Quarter Finalist 7th ranking



Derek has also recently represented Macau in the recent Asian Cadet Circuit Fencing Competition as well as won a silver medal in the Singapore Minime Championships in the 14U Men's Foil competition.

Taekwondo

C Div Boys: Darren Yap – Poomsae 2nd place; Kyrogi 1st place B Div Boys: Benjamin Ng – Kyrogi

International School Taekwondo Championships: Darren Yap

- Poomsae 1st place; Kyrogi 1st place; Bryan Yap
- Poomsae 2nd place; Kyrogi 1st place



Darren Yap, 2 SVM, won gold for C Div Boys Kyrogi, and also had success in numerous international competitions picking up medals in South Korea, Thailand and Malaysia as well as domestic successes in the Youth Olympic Festival and the Get Active! Singapore National Championships 2018.

Swimming

C Div Boys: Ronak Sanan – 50m Freestyle Heats, 200m

Freestyle Heats

C Div Girls: Alarice Teo - 100m Freestyle Heats

B Div Girls: Manya Nahata – 50m Breaststroke 16th place, 50m

Freestyle 23rd place

B Div Boys: Michael Lam - 200m Breaststroke Heats, 200m

Individual Medley Heats

Finalists



B Div Girls 200m medley relay team in action

B Div Girls: Overall Team Score 6th place; Madeline Lye – 100m Freestyle 1st place, 50m Butterfly 2nd place; Charity Lien – 200m Individual Medley 1st place, 100m Breaststroke 2nd place; Charity Lien, Manya Nahata, Madeline Lye, Jade Yap – 200m Medley Relay 7th place

B Div Boys: Kai Ang – 1500m Freestyle 8th place, 400m Freestyle 7th place

A Div Boys: Xavier Tng – 50m Backstroke 7th place

EXTERNAL CCAS

Tennis



Kazuki Nogami, 2 SVM – SMASH! Junior Tennis League Category 17 Runner-Up and Prince Junior Pesta Sukan Tennis Championship 2018 – Boy's Singles U14 Semi-Finalist

Figure Skating



Claire Chung, 1 Thoburn – National Inter School Figure Skating Championship, Silver Medallist



UPCOMING EVENTS

October	EVENT
10	 08:00-08:35 School Assembly (Year 6 Leaving) 09:00-11:00 Year 6 Leavers Assembly, Issue of Year 6 EOY Report and Graduation Rehearsal
11	Year 6 Study Leave commences
25	Internal end-of-year school examinations begin

The Principal Mr Rob Burrough, along with the Staff and Students of ACS (International), warmly invite you to attend the

Diploma Graduation Ceremony

Class of 2018

Guest of Honour Ms Elim Chew Founder of 77th Street

Friday 16 November 2018
5.30pm (Please be seated by 5.20pm)
Lim Seng Guan Sports Hall
61 Jalan Hitam Manis, Singapore 278475

Dinner will be served at Lim Seng Guan Sports Hall following the ceremony

RSVP to the Principal's Secretary: stella.sim@acsinternational.edu.sg by 2nd November 2018.



