

IT in Education

SMCESPS



PRINCIPAL'S WORDS

Growing up, if I wasn't writing to my friends I would be on my typewriter practising in the hope of improving my typing skills. At that time, this was an invaluable skill to have. Fast-forward to today, the typewriter has become obsolete and has been replaced with computers, tablets and smartphones.

Our school being at the forefront of education has also taken the step to incorporate technology into everyday learning and teaching. Through the use of technology, the learning environment has been made more interactive, thought-provoking and interesting. Students are given more opportunities to explore different areas of knowledge and develop a greater sense of learner responsibility and ownership. More importantly, the IT skills of students are developed to help prepare them for numerous challenges they may face in the future. Our students learn anywhere, anytime & anything they want to know.

This year we have introduced the "iPad 1 to 1 programme" in P6 and S1 as an important step in building up technology use in our school. So far the response to this programme has been positive and students and teachers are finding many avenues for development through this programme. For students, this has helped

them to develop their creativity and self-learning ability, while for teachers this has allowed them to have abundant resources for their teaching. Moreover, it's a joy to see such progress in just the first year.

Looking ahead, there are still many technological boundaries to be explored, tools to be developed, and programmes or apps to be used. The most important thing is how we can prepare our students for the ever-changing world. I am confident that with the training we provide, we will be able to see our students at the forefront of society using the skills they have learned in our school and as our school's vision states, we will be preparing students for life in the 21st century.

1

THE JOURNEY SO FAR



2010-2011

Mobile device lent to IT representatives of subjects as a pilot trial on mobile learning

2011-2012

More interactive whiteboards installed
Visit to Apple Education Conference in Beijing by KLA representatives
Macbooks provided for first batch of teachers
iPads available for 1:1 mobile learning lessons

2012-2013

School visits to learn more about 1:1 programmes
More training provided to teachers
Edmodo, Class Dojo, and Moodle introduced
More iPads available for 1:1 mobile learning lessons

2013-2014

Mobile device lent to IT representatives of subjects as a pilot trial on mobile learning
Wifi installed in all laboratories
Interactive whiteboards installed in all P.1-S.2 classrooms
School based Moodle developed

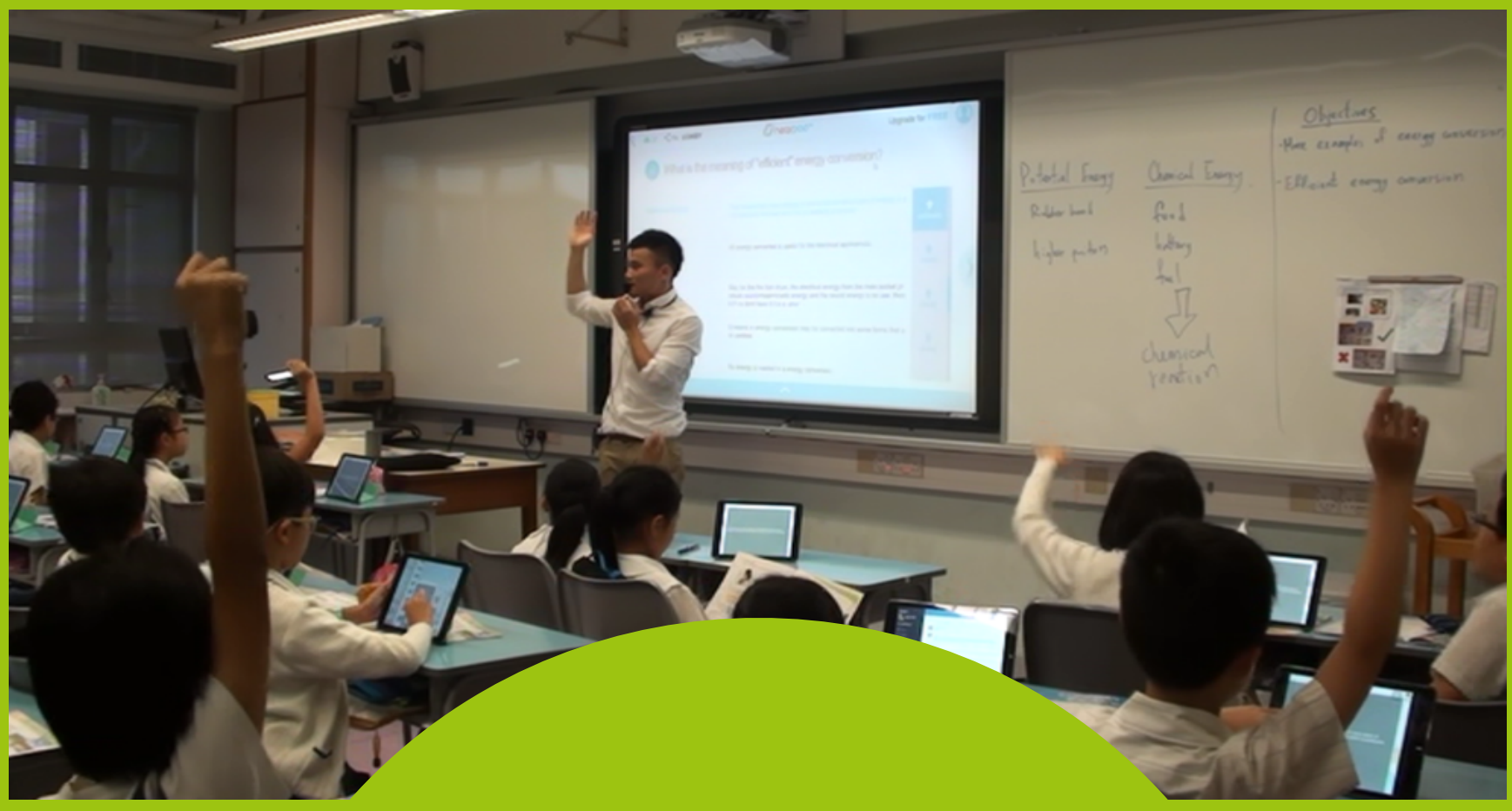
2014-2015
iPad 1:1 launched

2

1:1 IPAD PROGRAMME



Our Rationale



What do we expect from our students and our classrooms?
Why do we persist in classroom innovation?

What do we expect from our students and our classrooms? Why do we persist in classroom innovation?

We believe that in an ideal classroom, our students could:

➡Get involved and participate actively

➡Be willing to ask questions and be ready to solve problems

➡Share ideas and experience to help each other

➡Use information and resources to improve learning and in-class tutoring

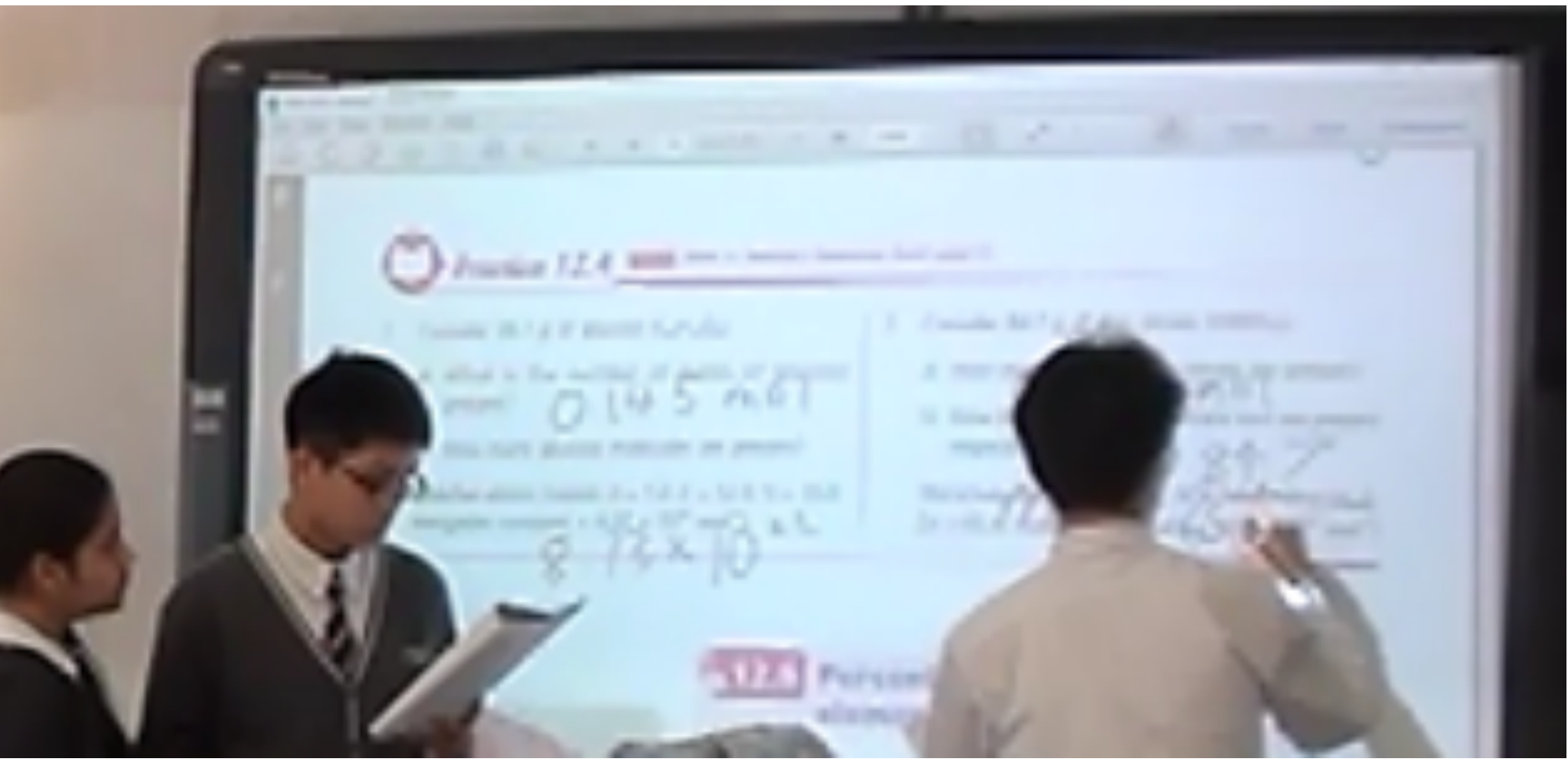
➡Have rich ideas and productive discussions

➡Build on, elaborate and improve each other's ideas

➡Monitor where discussions are going and summarize findings

While there are many factors which contribute to our ideal classroom, good use of suitable technology could definitely help enhance pedagogy and help us to achieve the above. The iPads are not here to replace existing instructional methods. Rather, it is here to complement existing methods and make other learning and teaching activities available.

Educational Technology



A lot more is made possible with the iPad 1:1 programme. With each and every student bringing an iPad of their own to the lesson, the use of educational technology is made more convenient.

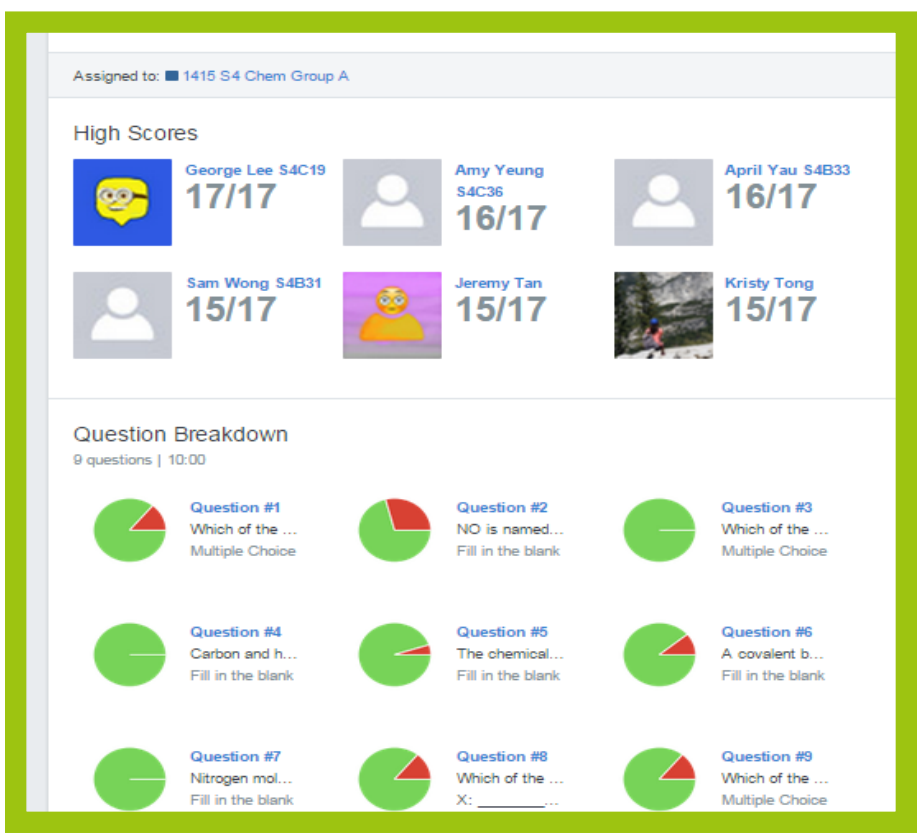
First and foremost, it allows for an easy setup of the technical environment. Online learning platforms (such as Moodle, Edmodo, Doddle and Brainpop) help set the

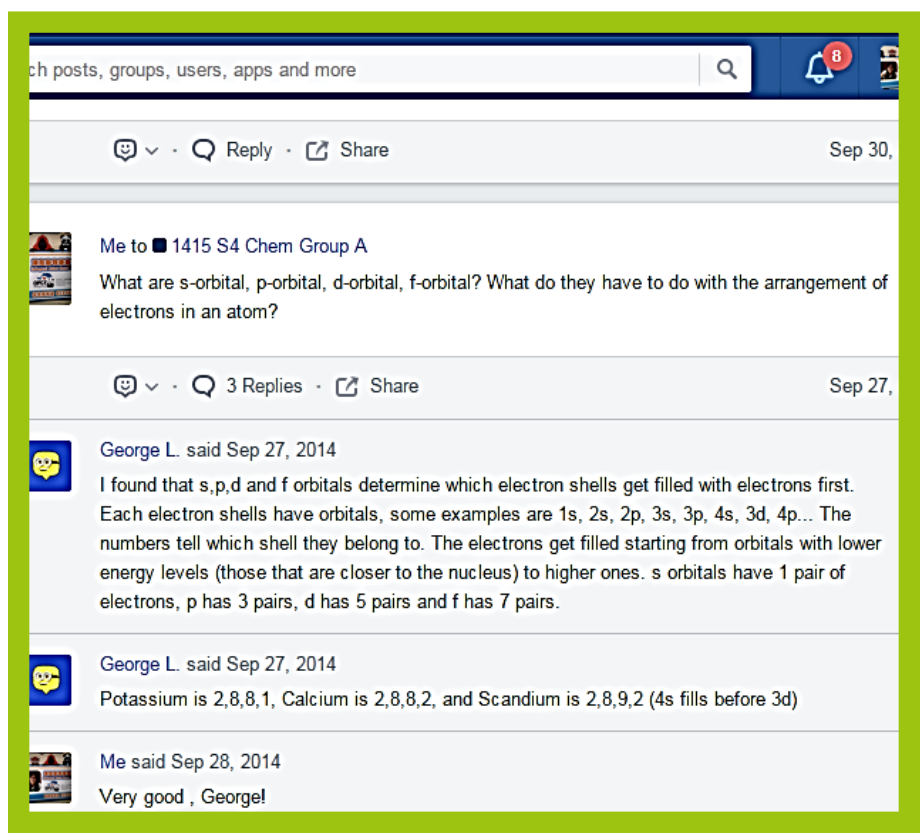
stage for resource sharing, discussions and interactive assessments. Wiki-walls provides a strong platform for interflow and exchange of ideas.

The iPad as a mobile device also allows for a wide range of other tools, such as location services, cognitive tools, realtime surveys and a variety of generic as well as content based applications.









What our students think



One of the best ways to know how we can improve is to gather response and feedback. Students' response and feedback about the iPad 1:1 programme is especially important to us, as they are the whole reason why we would go through so much to start this programme in the first place.

Students' response about the iPad 1:1 programme was collected by means of focus group interviews and surveys.

"I find myself more motivated to pay attention when the iPad was used in class!"

"Some classmates do misuse the iPad in lessons but I think teachers handle misuse well."

"I like using the Socrative app in lessons and the Educreation app to make projects."

"There may be occasional network problems but basically I am confident in using my iPad for lessons, because the school gives us a lot of training."

"I still prefer doing my note-taking with a real pen and a paper notebook, but the iPad is good for things like searching in safari and accessing online learning platforms."

"I find myself more engaged in lesson tasks when using these iPads."

"I think how the lesson is designed has a great impact on discipline. I really appreciate my teacher who worked very hard to prepare the materials and made sure everyone knew what was going on."

"This is definitely a good start! It would be better if the iPad can be used even more."

"Maybe for some people their behaviour in class deteriorated because of the use of iPad but I think as students we also have the responsibility to behave well and be disciplined."

3

L&T HIGHLIGHTS



English Language Education



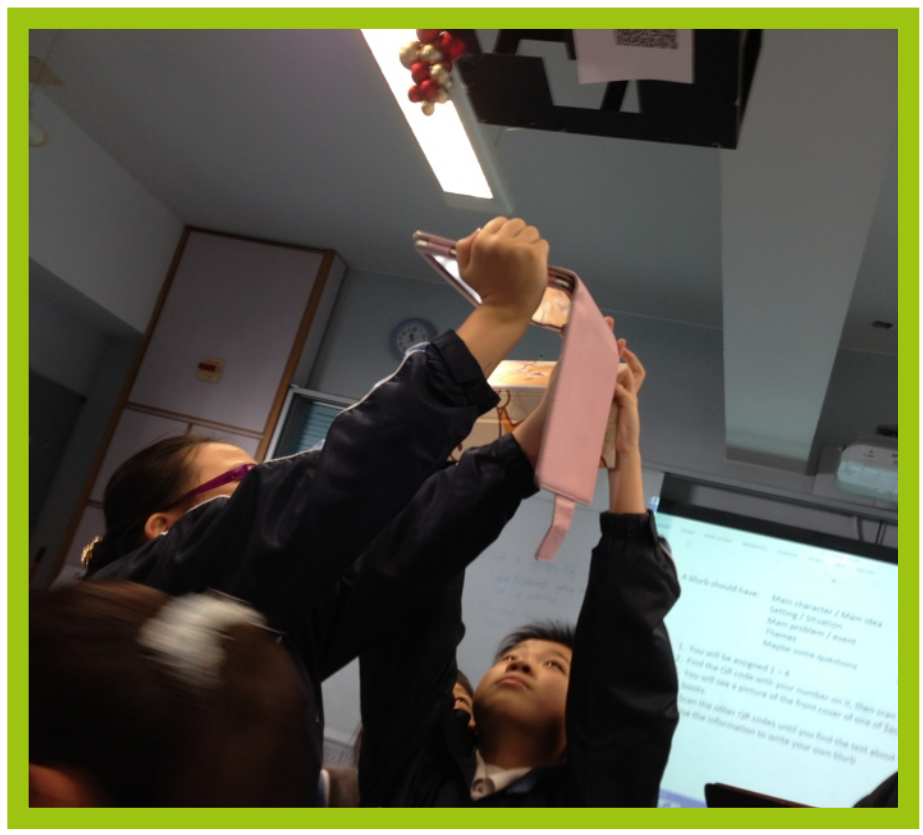
The learning of English language and English literature could be strengthened with the use of technology. Many learning and teaching activities could be organized with the mobile device and learning could be made more student centred.

Photo above: A student-centred lesson with the use of iPad during the Apple Education Conference when our school hosted guests from Thailand

Top: Students having a good time in a learning activity using the scanning function of the iPad

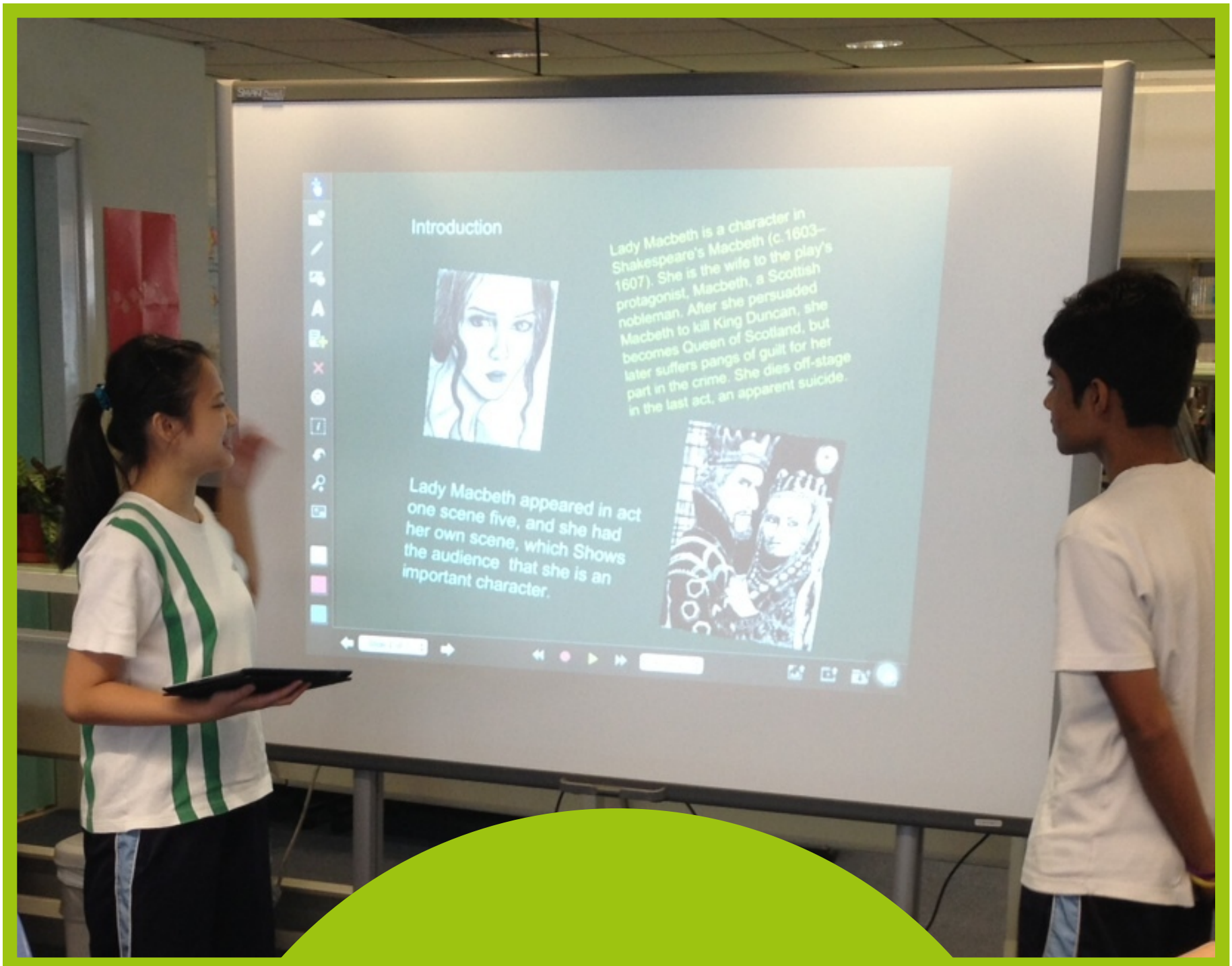
Bottom: Materials on the iPad prepared by the teacher help facilitate a writing task in a P.6 English lesson in which students find the activity effective in helping them learn





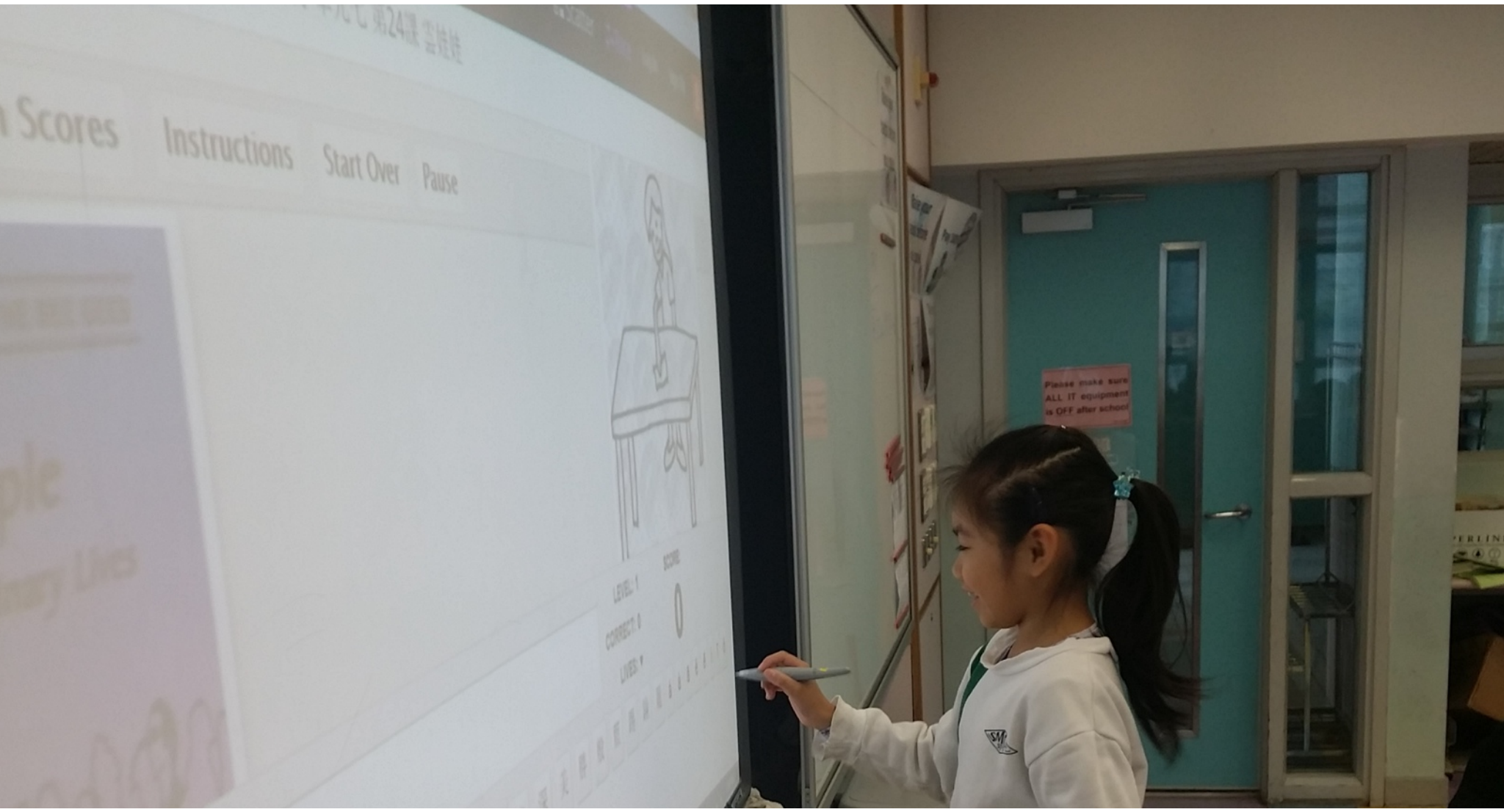






In this English literature class, students make use of the interactive whiteboard to share with their classmates what they have learnt about one of Shakespeare's characters Lady Macbeth.

Chinese Language Education



電子學習不但讓中文科的課堂有更豐富的教學活動，亦提供了更多渠道讓學生自學及互相交流。(The use of information technology has enriched the learning of Chinese language in many aspects.)

Photos on the next page:

Top left: 學生於參觀時紀錄所見所聞 (A student recording what he has learnt during a museum visit)

Top right: 教師利用軟件Socrative為學生進行小測，能即時掌握學生的學習進度並找出學習的難點以作進一步解說 (Socrative allows teachers to conduct assessment for learning in the lesson.)

Bottom left: 學生學習「說明文」時在課上即席搜集資料 (Students gathering information online when learning about expository writing)

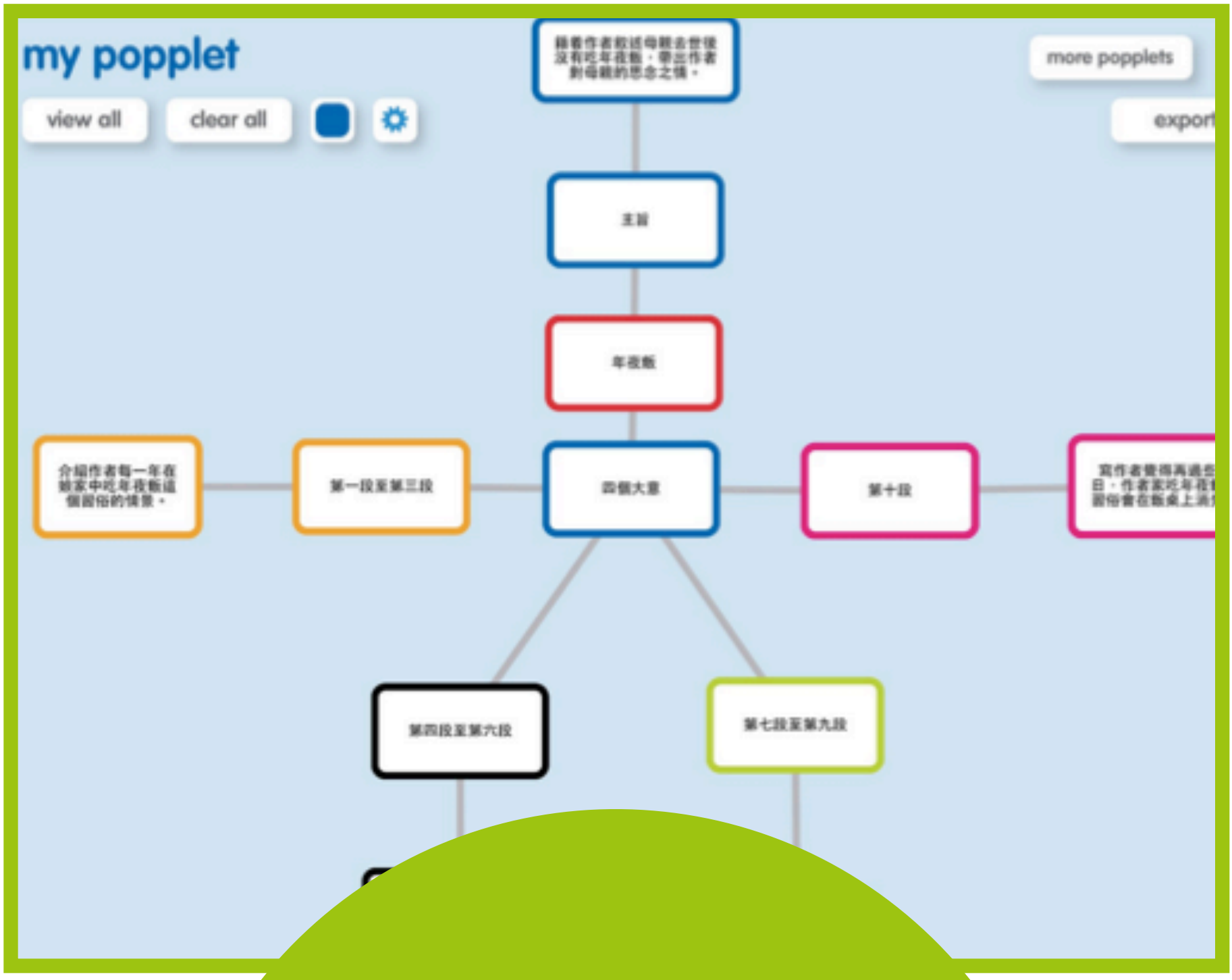
Bottom right: 中二學生在考試前夕對語法的討論 (An online forum of S.2 students discussing Chinese grammar)







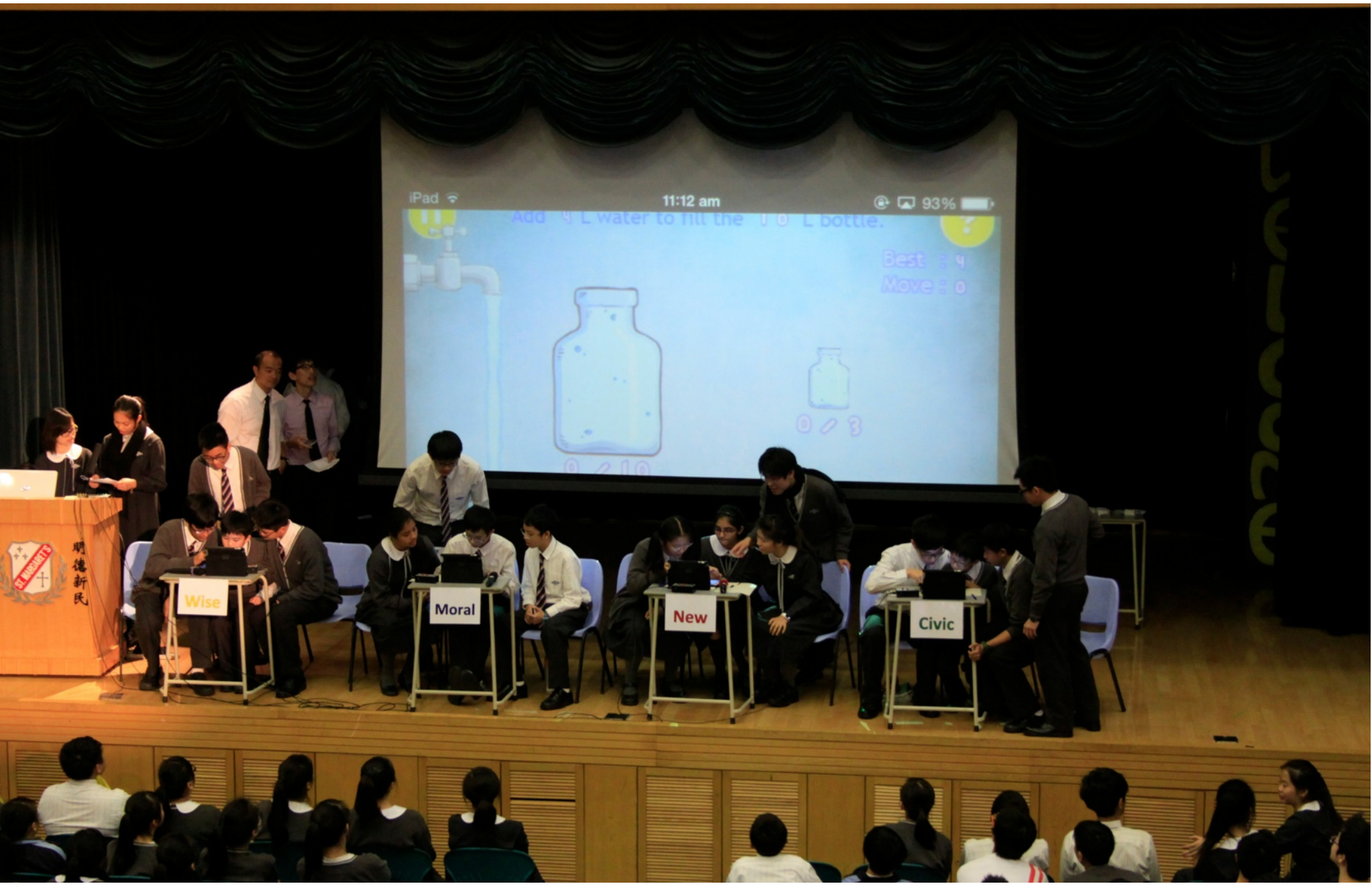




面對文言文的學習，學生需在課前以網上辭典完成上載於*Moodle*的網上語譯工作紙，訓練自學能力，亦會使用*Popplet*繪製概念圖，分組找出段落大意和主旨，初步理解課文，再於課堂上與其他同學討論。

(Technology helps to enhance students' learning and understanding in classical Chinese by facilitating lesson preparation and discussions.)

Mathematics Education



Apart from doing measurements and simulations, both of which are very important aspects in learning mathematics, information technology has also enabled other learning activities, such as quiz games, to be conducted in a more fair and organized manner.

Photo above: The inter-house mathematics quiz organized by the Maths Society

Top: P.5 students learning about directions using the compass function in the iPad (left) and also doing it hands-on by going around the school (right)

Bottom left: P.5 students learning about volumes and shapes in three dimensions

Bottom right: P.2 students learning about different shapes using a tangram app





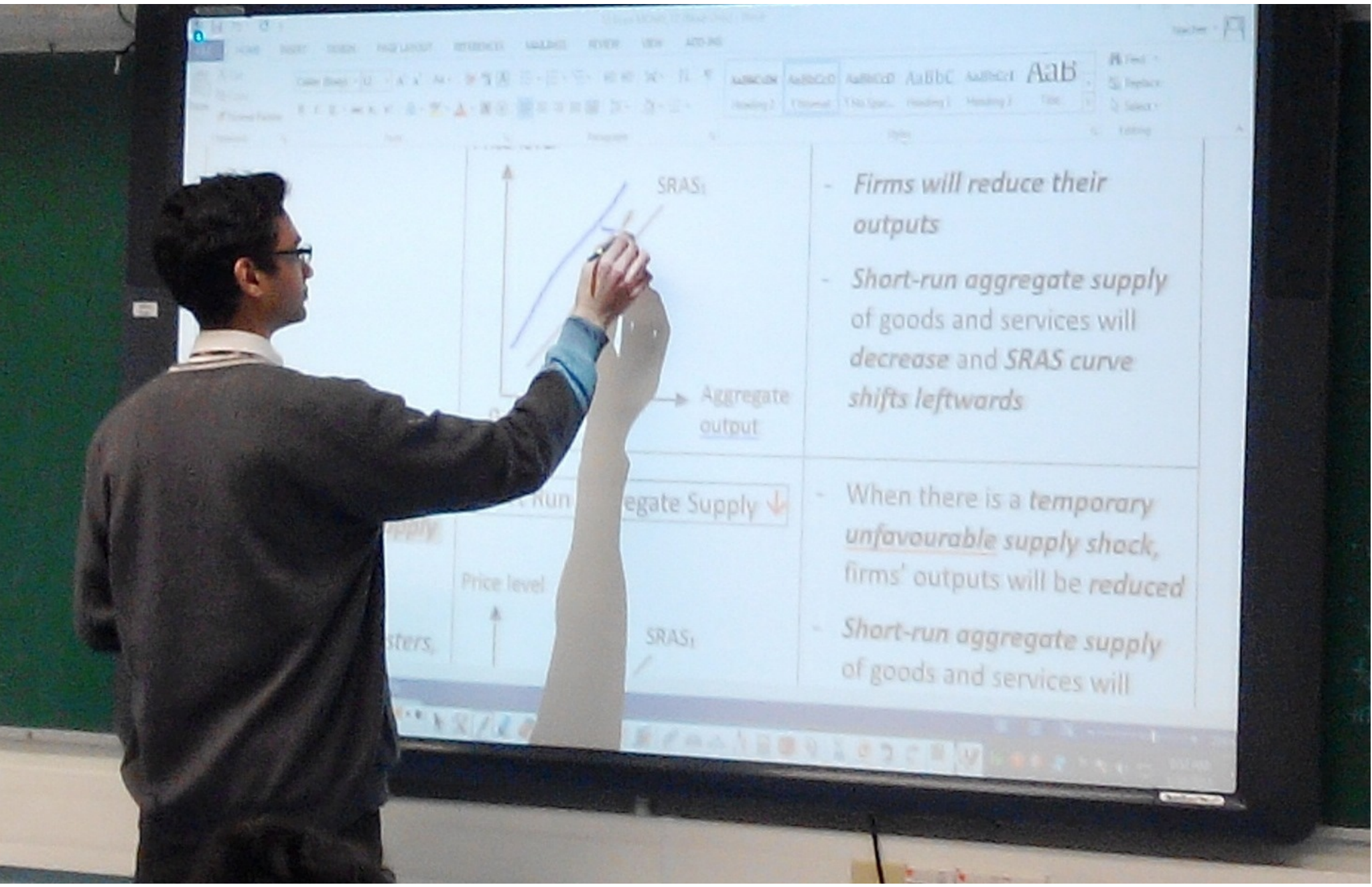






In learning trigonometry, these S.3 students could do a hands-on investigation on the relationship between the different angles and distances with the iPad as an accurate measuring instrument.

Personal, Social and Humanities Education



Presentations and discussions are very key learning activities in many subjects in the Personal, Social and Humanities Education Key Learning Area and these learning activities can be made more smooth and organized with the help of technology.

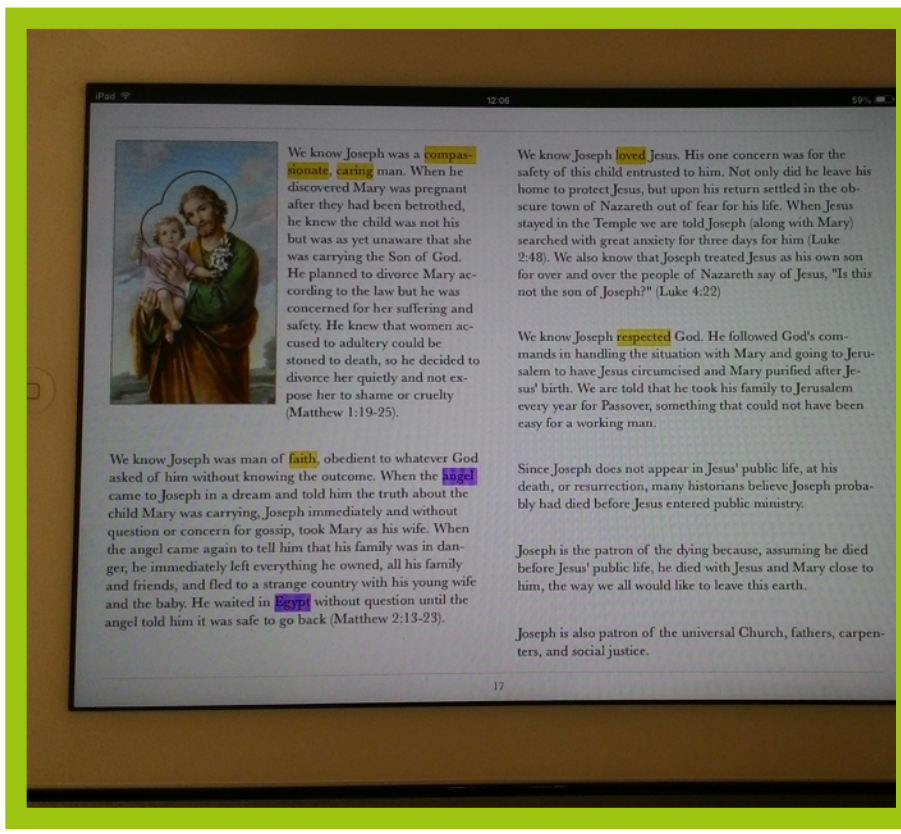
Photo above: A student making annotations on his classmate's answers

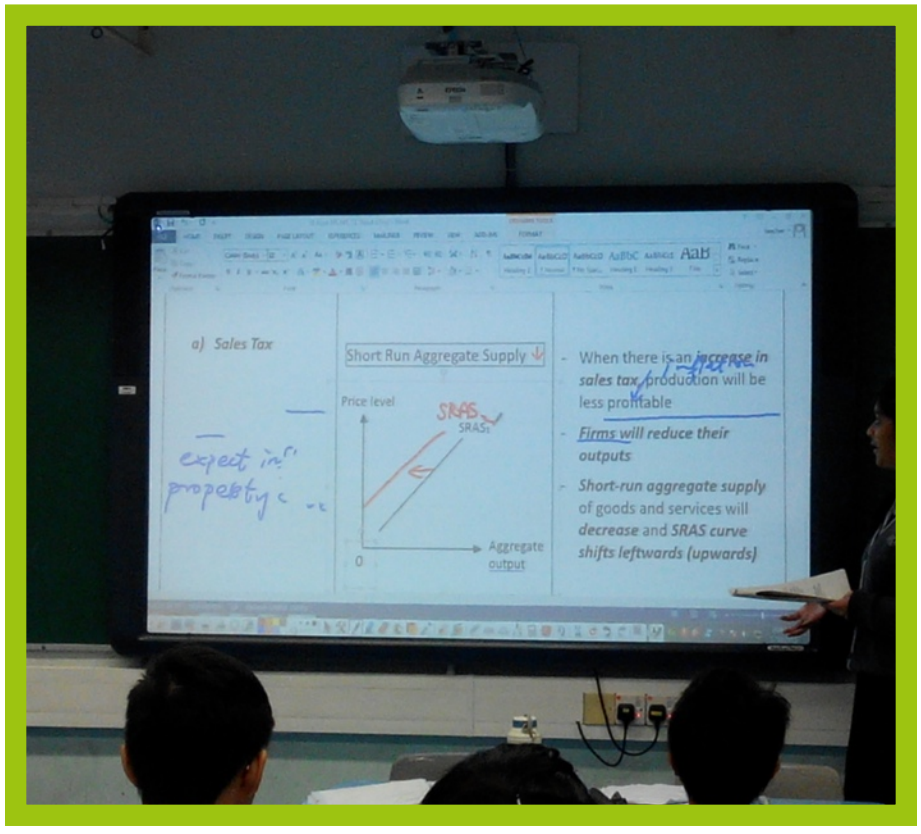
Top left: Students sharing their essays and giving feedback to each other on the Moodle platform using iPads during Liberal Studies class

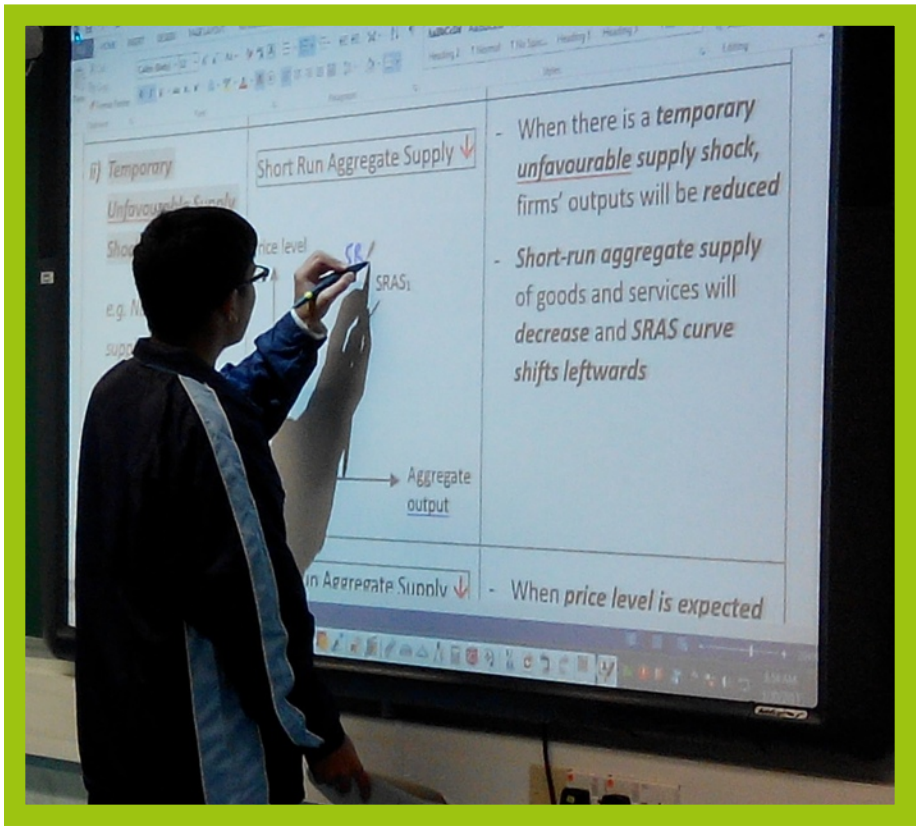
Top right: Students could lean in a more interactive way with different types of activities and annotative elements on the e-book in Religious Studies

Bottom: Students in Economics class can easily present ideas (left) and show answers to problems (right) with the Interactive Whiteboard





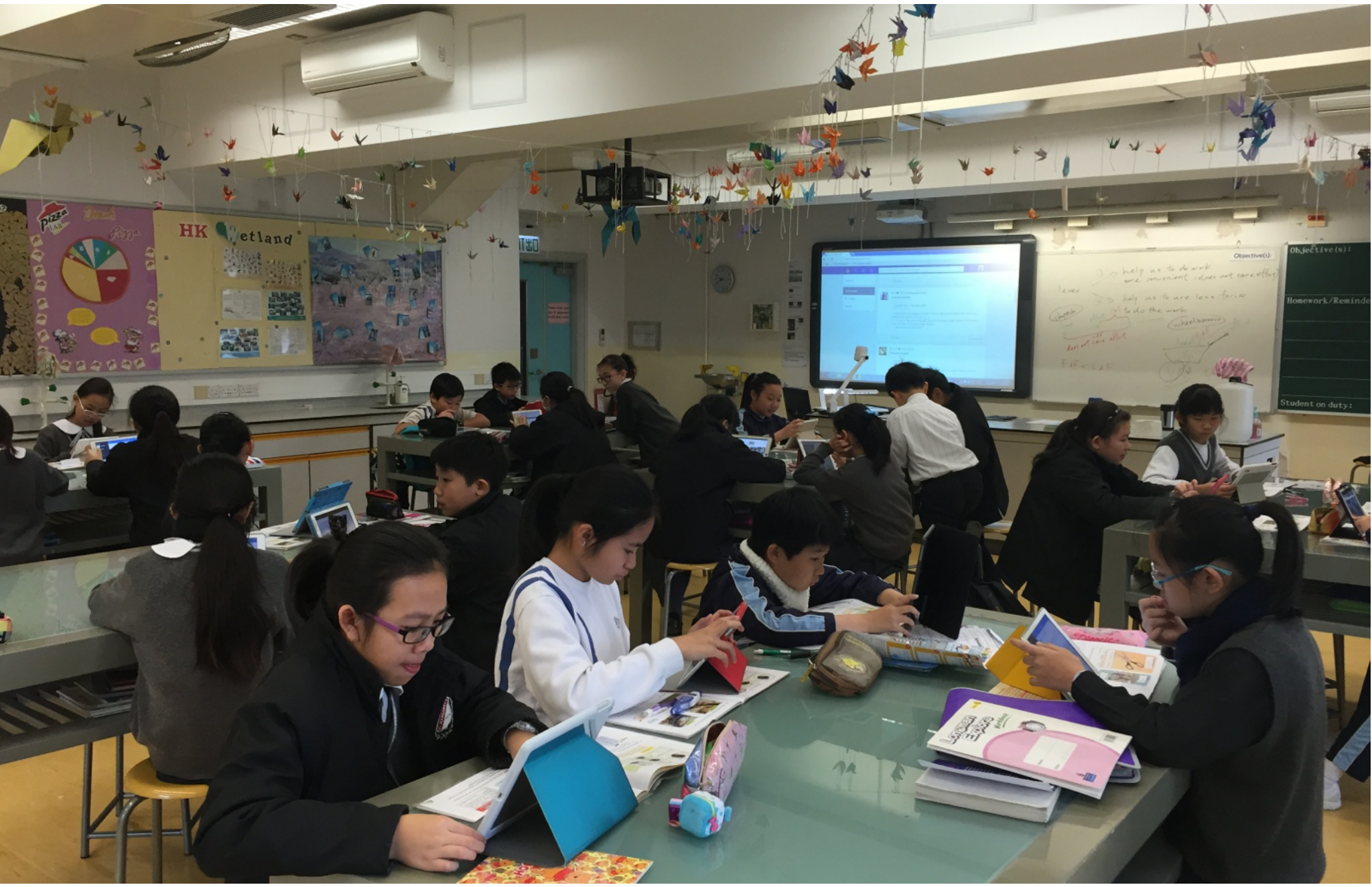






A Basic Law online competition was conducted using iPads. Convenience, fairness and environmental concerns are all easily taken care of.

Science Education



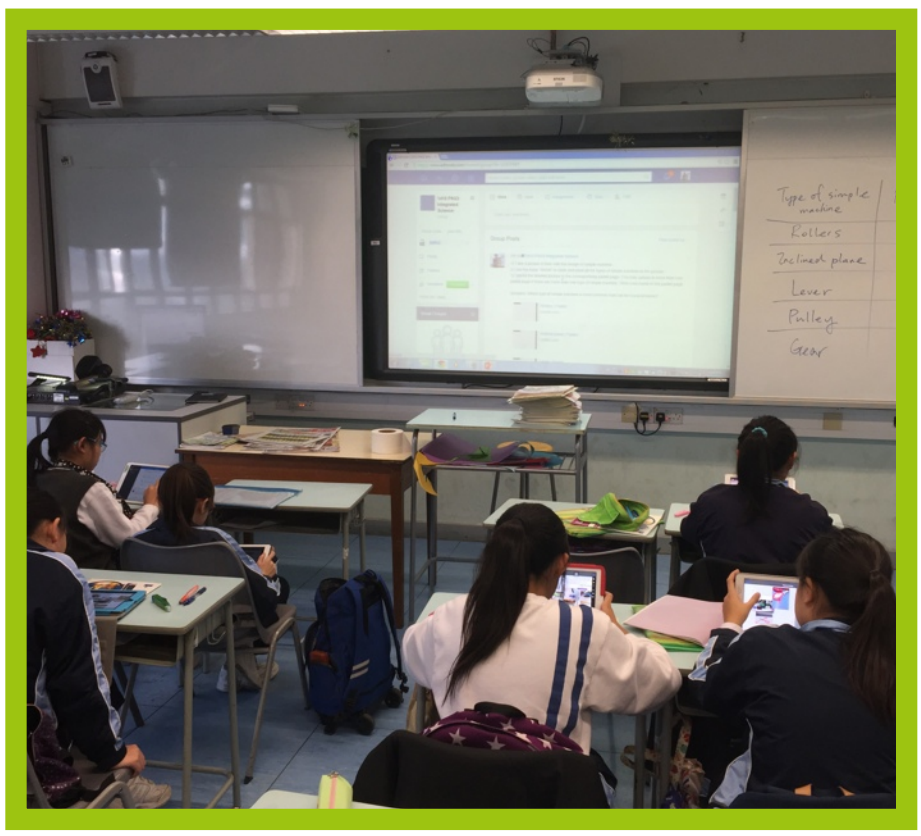
Educational apps come in many different categories. While some are more content based, others serve as very good generic tools for students to develop their self-learning skills, present ideas, and gather feedback from peers who in this case are also very important learning partners.

Top left, Top right:

Students learn by making annotated diagrams of simple machines they found at home using the app “Skitch” on their iPads

Bottom left, bottom right:

Students make annotated diagrams of compound machines and share them on the education platform Edmodo











When it comes to learning about biological structures, there's no better way than a high quality image if the real thing is not available. This can be easily achieved with the iPad.

Technology Education



While the iPad and other technological applications find their uses in many subject areas, the Technology Education KLA takes up the responsibility of making our students technology literate and empowering them with the skills necessary to make the most of learning with technology. Usage of common apps, learning platforms, Google services and apps development are the main areas of training we provide for our students.

Top left: A student controlling the helicopter through a mobile device

Top right: Students using iPads to record the components inside a computer

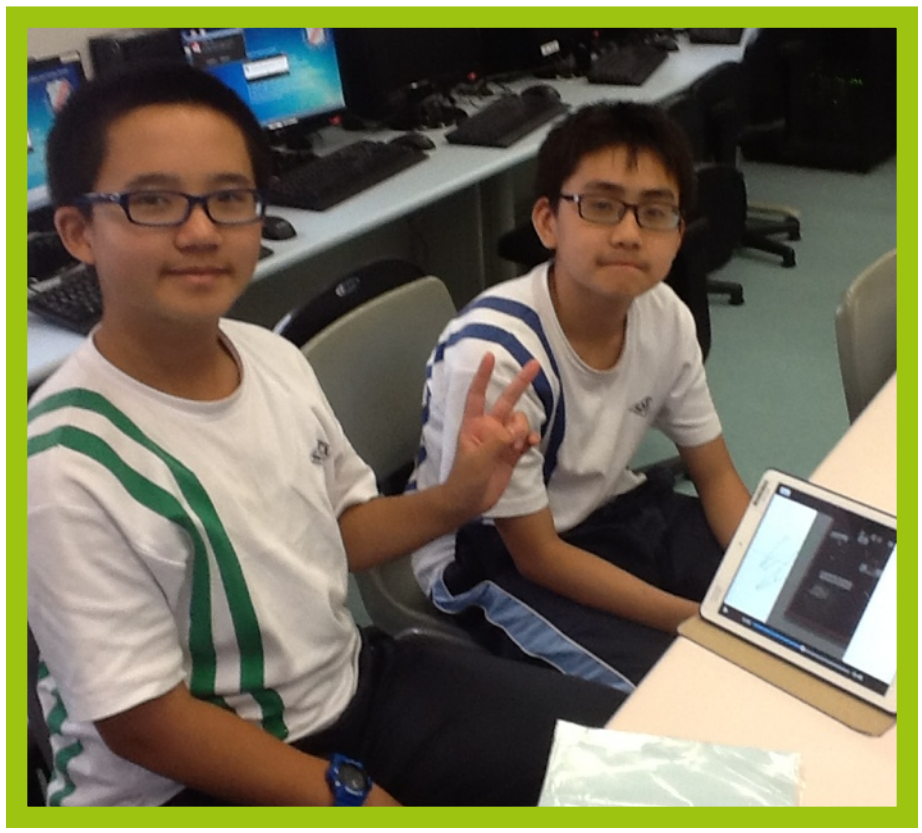
Bottom left: Students shared their thoughts simultaneously through their iPads

Bottom right: As a learner, nothing is more rewarding than being able to see yourself accomplish the lesson objectives and actually learn something











Creating a game app is no longer fantasy. Even our S.3 students could do it. They seem pretty satisfied with their work too!

Arts Education



A lot of fun things can be done in the music lesson with a mobile device like the iPad. With their own device, students can play, record, compose and mix their own music and show it to other classmates.

Top left: Students composing melodies using the iPad

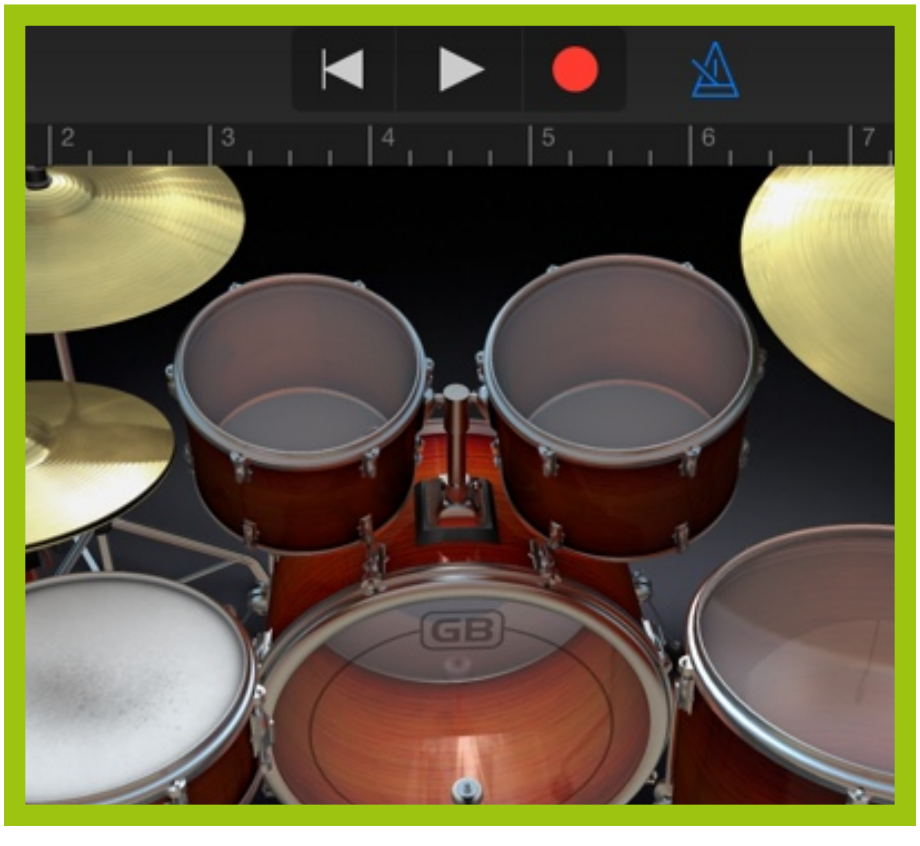
Top right: Working like a pro!

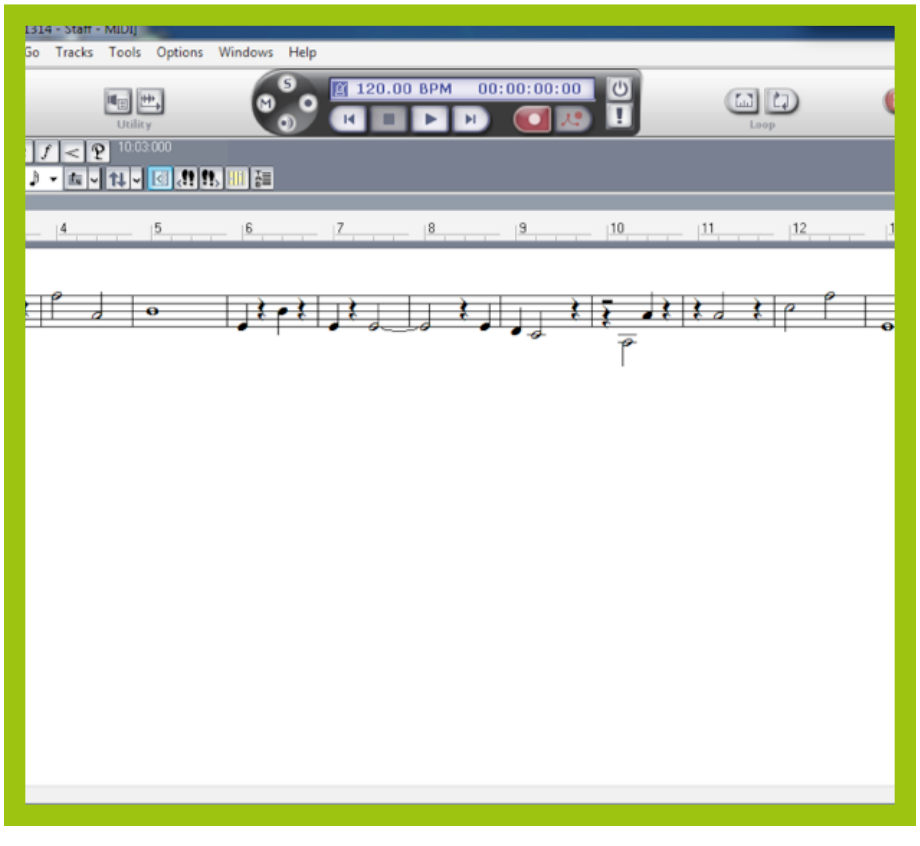
Bottom left: The App “Garage Band” enables students to write different melodies and rhythms with different instruments and synth pads

Bottom right: A short melody composed by a P.5 student using Sonar Home Studio











Here, a student was sharing his composition by playing it to the whole class through AirPlay. The teacher made use of his work to demonstrate the different rhythm students have learnt in this unit.

Physical Education



Information technology can be applied widely to different Key Learning Areas, and the physical education KLA is no exception. From health and fitness to training and performance enhancement, you will be amazed at how information technology complements instructions in physical education.

Photo above: S. students setting up their strategy using strategy board app

Top left: P.6 students conducting research on Handball rules

Top right: P.6 students present their findings about Handball rules to the class

Bottom left: S.1 students learning how to use strategy board app in Basketball

Bottom right: S.1 students calculating calorie intake with fast food app











S.1 students are learning about the ingredients and calorie intake through the fast food app using the iPad.

Modern Languages



With the use of the iPad and other supporting technology, a lot of different activities are made available in the language classroom and a whole range of activities outside of the classroom is enabled.

Photo above: A P.6 student sharing about a project on “Japanese Festivals” she created using the iPad

Top left: P.6 students using iPads to research about famous sight-seeing spots for writing dialogues about how to spend their holidays

Top right: S.1 Japanese students taking videos for their introduction of their school using Animoto

Bottom left: S.1 Spanish students filling in lyrics for a Spanish song in the language learning website called “Lyrics Training”

Bottom right: S.2 students researching information for writing biography











With "AirPlay", students can easily show what's on their iPad to other classmates. Here, a student is showing what she had found on the internet to the rest of the class.

4

EXTERNAL CONNECTIONS & PROFESSIONAL DEVELOPMENT



Microsoft Innovative Educator



Our ICT KLA head, Mr Lau Hing Yip, was selected by Microsoft as a Microsoft Innovative Educator Expert, one of the 800 educators in over 100 countries. This is a very special privilege. Through this programme, a lot more educational tools and technology as well as professional development opportunities would be available. The use of technology in education in our school can be taken to a new level and this will ultimately benefit our students through enhanced learning and teaching.

Apple Educaion Conference



In the Apple Education Conference held in November, 2014, fellow educators and school administrators from Thailand visited our school and a lot of professional exchange took place. Our Thai guests observed many lessons of many different subjects, including Modern languages, Mathematics, Science and Music. They were especially impressed by how our iPad 1:1 programme was implemented practically.

Top Left: A great occasion of professional development and interflow of ideas

Top Right: Sharing from our student and Thai guests

Bottom left: Sharing from our Modern Languages teachers

Bottom right: An iPad lesson observed by our Thai guests









Microsoft Forum



One of the best ways to learn is by the interflow of ideas when one shares what one knows and others give feedback. This is exactly what happened when a group of ICT students led by our teacher Mr Lau Hing Yip participated in the Microsoft Forum HK 2014. In the forum, students shared with guests what they have learnt about various skills they have learnt in ICT, in particular programming, while Mr Lau shared from the point of view of a teacher.

SENCO Sharing Session



Together with two other schools, we participated in the iPad 1:1 Pilot Programme Sharing Session organized by SENCO Masslink Technology Ltd. In the events, we shared about our experience and thoughts in deploying iPad 1:1. We have also gained insights from the sharing of other schools.

21st Century Learning Conference



The 21st Century Learning Conference was a major event in the field of IT in education with participants from over 20 countries and it provided a platform for educators to share good practices in using technology in learning and teaching. It has provided great insights to our school in the promotion and implementation of innovations in education.

In-School Staff Training



Teacher training is one of the most important aspects in IT in education as our teachers are the one at the frontline actually utilizing the different technological resources. It is of utmost importance that our teachers are constantly updated of the latest technology and tools available as well as the skills to fully utilize such resources so as to make learning and teaching more effective.

5

MEET OUR PEOPLE



Mr. Lau Hing Yip
Head of Technology KLA

An Interview with Mr Lau

Q: Why do you like using technology for learning and teaching?
A: Technology provides a lot of tools for lessons to be run effectively and efficiently. Students' response can be collected through mobile devices and their strengths and weaknesses can be identified quickly. Students can also learn in different ways through stimulations and game-based activity.

Q: How has technology changed the way you do things?
A: Collaboration and communication is made easier as it is not confined to a specific time and location anymore. However it makes it difficult to distinguish between working and non-working hours.

Q: What was the first computer you owned? When did you get it?
A: It was an AMD Athlon mini desktop in the 1990s. It costed a few thousand dollars but you wouldn't bear its performance given what we have nowadays. Moore's Law states that the powerfulness of CPU will be doubled every one and a half year. I think this theory is still valid otherwise we cannot enjoy using the computers we have nowadays.

Q: What would be the one thing you wish technology could help you with?
A: Solving all the problems that I face!

Q: How do you see e-learning in SMC in 2020?
A: I think every student will bring their mobile device to the school. They may not be bounded in a classroom but instead will take the initiatives to form different hubs in various locations to learn from one another.

Other People in the IT Development Committee

Chairperson: Mr Anthony Adames
Assistants: Mr Alex Wong, Mr Boaz Wong

I.T. in Education (ITED)

Coordinator:	Ms Tse Hoi Ming	
Members:	Mr Jonathan Barnes	(English)
	Ms Chiu Lo Ying	(Chinese)
	Ms Liu Meichen	(Chinese)
	Ms Yuen Ming Ting	(Technology)
	Mr Yuen Pak Kei	(Physical Education)
	Mr Daniel Hernando	(Modern Languages)
	Ms Lee Ling Sum	(Arts)
	Mr Lui Po Ting	(Science)
	Mr Chan Ka Lai	(PSHE)
	Mr Wong Man Kwun	(Mathematics)

I.T. Services

I.T. Prefects	Coordinator:	Mr Tang Wai Yi
	Member:	Ms Yuen Ming Ting
Internal Services	Coordinator:	Mr Lau Hing Yip
	Members:	Mr Tang Wai Yi, Mr Wong Man Kwun
		Mr Alex Wong, Mr Boaz Wong, Mr Pan Yeung
Technical support	Coordinator:	Mr Lau Hing Yip
	Members:	Mr Wong Man Kwun, Mr Tang Wai Yi,
		Mr Alex Wong, Mr Boaz Wong, Mr Pan Yeung,
		Ms Christie Cheng, Mr Frankie Cheung, Mr
		Alan Fung
School Websites	Coordinator:	Mr Wong Man Kwun
	Member:	Mr Leung Chung Yu
WebSAMS	Coordinator:	Mr Lee Shun Hang
	Members:	Mr Cheung Chun Tung, Mr Hung Kai Shing

Copyright

© St. Margaret's Co-educational English Secondary And Primary School 2015

Advisors: Mr Anthony Adames, Ms. Tse Hoi Ming

Editor: Ms Lee Ling Sum Rachel