

Cambridge Outlook

THE MAGAZINE FOR CAMBRIDGE SCHOOLS WORLDWIDE

Issue 26, September 2017

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Making maths fun

Cambridge Schools Conference speaker Alex Bellos on engaging your students



Top tips for exam success

Advice from some of our top-scoring alumni



Regional viewpoint

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A broader approach

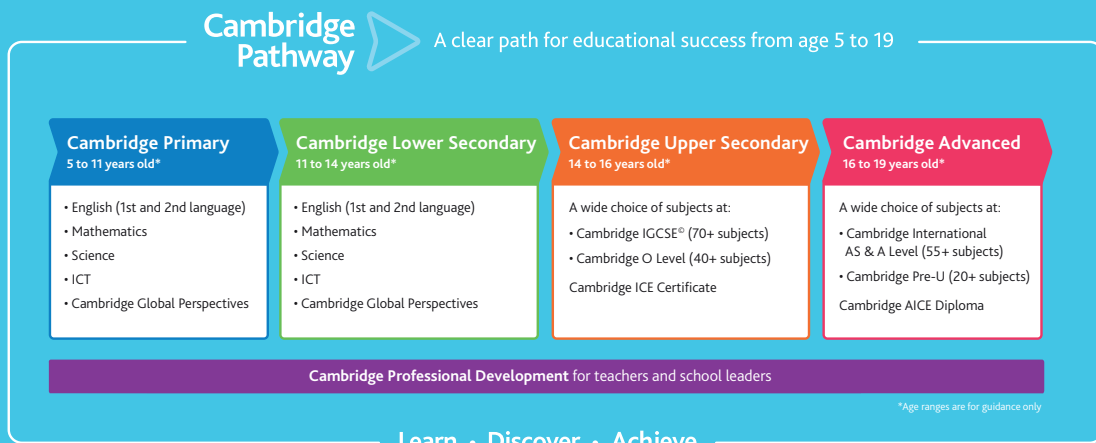
How our scope has expanded to help schools prepare students for life in a changing world



Cambridge Assessment International Education



Cambridge Assessment International Education prepares school students for life, helping them develop an informed curiosity and a lasting passion for learning. We are part of the University of Cambridge.



Our Cambridge Pathway gives students a clear path for educational success from age 5 to 19. Schools can shape the curriculum around how they want students to learn – with a wide range of subjects and flexible ways to offer them. It helps students discover new abilities and a wider world, and gives them the transferable skills they need for life, so they can achieve at school, university and work.

Learn more! For more details about the Cambridge Pathway go to www.cambridgeinternational.org

Welcome


ISSUE 26, SEPTEMBER 2017

You may have already noticed our new logo on the front cover – or received other communications from us that have made you aware of our name change from Cambridge International Examinations to Cambridge Assessment International Education.

While the standards of our programmes and qualifications remain constant, our new name better reflects our desire to help you develop the whole of education within your school. We hope that *In focus* helps to show you how (see page 6).

We are also celebrating the launch of our 2017/18 Cambridge Schools Conference programme and I look forward to meeting some of you at one of the three global events. For those unable to join us this time, on page 12 conference speaker and author Alex Bellos gives you a flavour of his session, sharing his advice on making maths fun. I hope you enjoy reading all the features – thank you to all the schools that contributed to them.

If you have any questions for us, please email outlook@cambridgeinternational.org




Michael O'Sullivan
Chief Executive,
Cambridge Assessment
International Education

About us

Cambridge Assessment International Education prepares school students for life, helping them develop an informed curiosity and a lasting passion for learning. We are part of the University of Cambridge.

Any feedback on this issue? Anything you would like to read about in the next issue? Contact us at:

Cambridge Outlook magazine, Cambridge Assessment International Education, 1 Hills Road, Cambridge CB1 2EU, UK
t: +44 1223 553261 f: +44 1223 553558
e: outlook@cambridgeinternational.org



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International network keeps on growing

As part of our goal to give schools more local support, we're continuing to expand our international network of representatives – more than 80 staff are now based in Cambridge offices worldwide. As well as appointing more schools managers, we are adding training, recognitions, education and marketing staff to our nine regional teams.

Recent new regional roles

NORTH AMERICA

Don Meyers *Senior Manager, Southeast USA*

MIDDLE EAST & NORTH AFRICA

Asma Tarawneh *Educational Consultant, Jordan*
Nadine Tarawzi *Senior Education Advisor*

SOUTH ASIA

Dilip Kottapadath *Manager, South India*
Lalith Prasad *Manager, South India*
Haleema Saad *Recognitions Consultant, Pakistan*
Taimoor Tariq *Manager, Punjab, Pakistan*

EAST ASIA

Dr Jing Zhao *Regional Director*
Yin Chang *Manager, North China*

SOUTHEAST ASIA & PACIFIC

Suhaimy Hassan *Senior Education Advisor*

We are also adding more staff to our teams in Pakistan and the Middle East & North Africa very soon. For details, visit www.cambridgeinternational.org/regionalcontacts



You can call our Customer Services team for support 24 hours a day, Sunday to Friday, and find answers to frequently asked questions online.

Contact us at www.cambridgeinternational.org/help



2017/18 conference programme launched

The 2017/18 Cambridge Schools Conference programme starts in the UK this year. The first of three international conferences exploring the theme 'Learning and achievement for all' takes place in Cambridge from 20 to 21 September.

The conferences enable teachers and school leaders from different countries and contexts to share knowledge and discuss common challenges in education.

Participants are encouraged to reflect on new ideas and apply them to their own teaching when back in the classroom.

The Cambridge event is followed by a second conference in Dubai, UAE from 8 to 9 December. Details of the final conference (June 2018) will be released in due course.

See page 12 for more on one of our speakers and find more details at www.cambridgeinternational.org/conference

US Higher Education Advisory Council meets in Cambridge

Admissions staff from 12 leading US universities came to Cambridge in July to advise on strategies to extend the recognition of Cambridge qualifications in North America, and to hear the latest news and research about our programmes.

Our Head of Recognitions, Val Sismey, said: "We've worked closely with members of the Council for many years. Their views are incredibly important in helping us shape the development of Cambridge Advanced qualifications to ensure they are fit for purpose, and to increase understanding of Cambridge qualifications in US higher education institutions."

One of the 12 representatives, Douglas Christiansen, Vice Provost for University

Enrollment Affairs, Dean of Admissions and Financial Aid at Vanderbilt University, Nashville, described the challenge facing admissions staff, where 32 000 students apply for 1600 places. "Memorisation is not what we are looking for," he said. "We want thinkers and those who can draw conclusions. Students are very prepared for Vanderbilt if they come through the Cambridge curriculum."





Global roundup

What's happening in the world of international education

Regular tablet use in school improves young children's maths, English and communication skills

Research¹ in Northern Ireland has found that use of portable tablets, such as iPads, in the classroom was beneficial for primary school-aged children. Findings from the two-year study included it having a positive impact on the development of children's literacy and numeracy skills and an increase in their confidence and ownership of the learning process. The research, *Mobile Devices in Early Learning*, also found that the use of tablet devices had a positive impact on teachers' motivation and enthusiasm, with initial nerves about using digital technology dispelled. The recording and monitoring of children's progress was also made more precise and easier when using a tablet device.

Literacy attitudes improved by reading to therapy dogs

Students can sometimes struggle when asked to read more academically focused material, with it potentially causing them to switch off or stress

about the challenging subject matter. A small American study² has come up with a novel, furry solution. Researchers from Tufts University trialled a six-week after-school canine-assisted reading programme where, once a week, seven- and eight-year-old students read to a registered therapy dog for 30 minutes. Although reading skill scores didn't change notably in the intervention or control group, the academic reading attitude scores of those who read to the dogs increased significantly when compared to those that didn't.

Teaching students self-regulation skills helps them in the future

Young people react differently to set-backs – such as a disappointing exam result or being disciplined by a teacher. But Spanish researchers³ found that students can bounce back from adversities when taught self-regulation skills – such as how to set goals. The study concluded that this encourages their capacity for resilience, reducing drop-out rates – both at school and in later life.

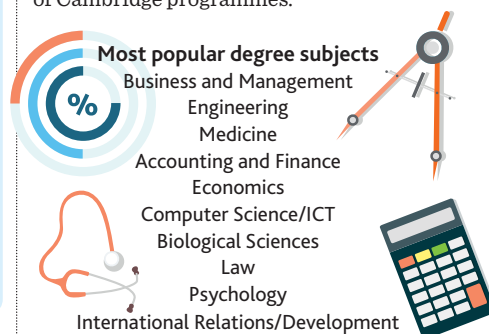
In brief

What's on the blog?

Have you signed up to our blog? Recent posts include an article about research into the college readiness of Cambridge students in the US, and tips for using chat apps in professional development programmes. Sign up at www.cambridgeinternational.org/blog

Survey reveals most popular subjects

Business and Management is the most popular subject for undergraduate degrees among Cambridge students, according to our 2016 Student Destinations Survey. Almost 400 respondents from Cambridge schools took part in our annual survey, helping us learn more about where students apply to university. Thanks to all who took part – your responses inform the work of our Recognitions team and help us address any issues relating to acceptance of Cambridge programmes.



New school community launched in Turkey

Cambridge Associate TED Ankara College, Turkey, has announced the creation of a Cambridge school-run network that shares knowledge and expertise.

General Director of TED Ankara and TED Foundation Schools in Turkey, Sevinc Atabay, launched the initiative at TED Ankara College's fourth annual Cambridge Day in May 2017, attended by over 220 school leaders and teachers.

Students from TED Ankara College Foundation Middle and High Schools took to the stage (pictured) to share their thoughts on the future of education in Turkey and around the world. The group delivered the panel entirely in English – an



achievement for the fifth-grade students whose English has greatly improved since moving to the Cambridge Lower Secondary programme a year ago.

Burcu Benderli, Cambridge International Manager, Turkey, said: "The opportunity to connect will be of huge benefit to all our schools in Turkey."

Florida school district adopts Cambridge programmes

Collier County Public Schools (CCPS) in Florida, USA has recently implemented Cambridge programmes in almost every school within the school district.

"We've worked with Cambridge since 2011, so we knew they were the right partner to bring our students rigorous, expanded options for their education, and challenge them to meet truly global expectations," said Dr Kamela Patton, CCPS' Superintendent.

CCPS serves more than 47 000 students in 29 elementary schools, 10 middle schools, eight high schools and one pre-kindergarten-to-year 12 school. Cambridge programmes will be offered in 46 out of 47 schools in the district.

IN FOCUS



A broader approach

Michael O'Sullivan, Chief Executive, introduces our special section that illustrates some of the ways in which we prepare students for an ever-evolving global world – and how the organisation's recent name change from Cambridge International Examinations to Cambridge Assessment International Education reflects this

Cambridge Assessment

As a department of the University of Cambridge, Cambridge Assessment has 160 years of expertise and an unrivalled depth of experience in working within national education systems, international education and English language learning.

Q: Why did you decide to remove the word 'Examinations' from your name?

A: "Assessment and therefore examinations remain at the heart of what we do and that is why our new name includes the word 'assessment'. It also shows more clearly that we are part of Cambridge Assessment and their unrivalled expertise in education. But the most significant part of the name change isn't what we've taken away, it's what we've added – the word 'education'. In the past, we mainly concentrated on schools' ability to administer our examinations securely and competently. That remains extremely important but we are looking much harder at schools' readiness to successfully embrace a Cambridge curriculum."



Cambridge Assessment International Education

Q: Does this indicate a change in the way Cambridge works with schools?

A: "It signifies an important shift that's been going on for many years and is continuing. We've been providing Cambridge schools with ever-increasing support, not just in the form of widely-recognised, quality examinations, but in a host of other things that support the curriculum and the teaching of it in schools – from teacher professional development to results analysis to schemes of work. More and more schools are making wide use of our services and attend our conferences (see page 12 for an interview with one of our expert speakers).

"We want to grow a community of schools that engage deeply with Cambridge, so over the last three years we've created an international network of teams in each region where we operate, which I think has transformed our ability to understand the

schools we work with and regularly engage with them to really understand why they've chosen Cambridge and what they want from us in the future."

Q: What are the distinctive features of a Cambridge international education?

A: "There are three very important things that we want students to develop. One is deep subject knowledge. Another is conceptual understanding of the subject, so not just having the subject knowledge but the ability to make sense of it. The third is higher-order thinking skills such as critical thinking and collaboration skills.

"By 'international' we also mean an education that

New Communications toolkit for schools

We are introducing our name, Cambridge Assessment International Education, from September 2017. Our short name is Cambridge International.

Although our organisation name is changing, we are offering the same programmes and qualifications that are trusted and recognised by universities and employers around the world.

You will continue to see our old name (Cambridge International Examinations) on our materials until we update them. As and when you update new materials for your school, please use our new name.

Our new name will be introduced on certificates for exams taken in 2018, and on question papers in 2019.

You can find new versions of our logos for schools, guidance on how to use them, and a wide range of updated resources to help you talk to parents and students about Cambridge programmes in our Communications toolkit.

Go to www.cambridgeinternational.org/toolkit



is recognised all over the world as preparing students for successful participation in higher education in highly-selective universities. The Cambridge standard represents the best international standard – a truly global curriculum.

“Another important aspect of ‘international’ is to equip students whose first language is not English to function entirely competently in the English language – the first language of international business and exchange.”

Q: What is Cambridge Pathway?

A: “This is the name that we have chosen to represent our offer from the beginning of primary school through to the end of secondary education at 18 or 19 (see inside front cover).

“For some years now, we’ve had the core subjects of English, science and maths in the primary and lower secondary years, leading to the multiple pathways of Cambridge IGCSE / O Level and Cambridge International A Level. It’s a curriculum that offers huge flexibility and choice for schools but there is an overall coherence, a spiral of learning that takes students from the very beginning of compulsory education through to having what they need in terms of knowledge, skills and aptitude to proceed to a successful university education – and to life beyond.”

**Cambridge
Pathway** 

Learn • Discover • Achieve

Q: How important is Global Perspectives in the Cambridge portfolio?

A: “It’s our fastest growing set of syllabuses at Cambridge IGCSE and Cambridge International A Level, and we are now adding it at Cambridge Primary and Lower Secondary because our research and piloting has shown how much potential there is for methods of learning at the lower stages of education (see page 8).

“Schools have told us that they want a subject that enables students to spend time focusing on developing skills such as critical thinking, evaluating information and evidence from external sources, making presentations and understanding and deconstructing other people’s arguments. Cambridge Global Perspectives® really focuses on these things. It



Collaboration is one of the higher-order thinking skills Cambridge International helps students develop

GETTY IMAGES

“

“It’s a curriculum that offers huge flexibility and choice but there is an overall coherence”



also provides space in the curriculum in which students who sometimes find formal education a struggle, are able to flourish because of the open source nature of Cambridge Global Perspectives.”

Q: You’ve created a new guide to *Developing the Cambridge Learner Attributes* for schools (see page 14). Why do you think fostering these attributes is so important?

A: “All the schools we work with find the five Cambridge learner attributes – confident, responsible, reflective, innovative and engaged – extremely important. Schools interpret them in different ways and some add other attributes that reflect their school or national culture. But the resonance of the five Cambridge learner attributes is great in every school I’ve ever visited in our community. Hence we are offering more to help schools develop the whole curriculum in ways that foster the development of these attributes.”



In this section

- 6 All you need to know about our new name and our new toolkit (see left panel)
- 8 Cambridge Global Perspectives from 5 to 14
- 12 Alex Bellos – making maths fun and accessible
- 14 Your guide to *Developing the Cambridge Learner Attributes*

Practice makes perfect

Over 40 schools are currently involved in a two-year pilot to test the introduction of Cambridge Global Perspectives to students aged 5 to 14. Here, two of the schools report on their experience of delivering the new programme



Each Challenge focuses on developing a specific skill like 'sharing planet Earth'

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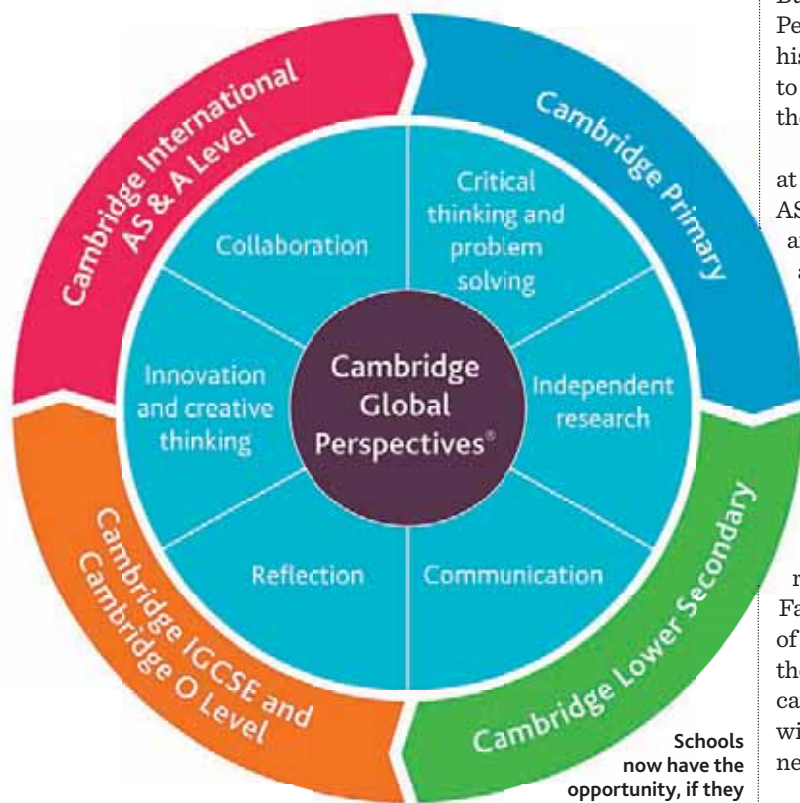
When we started to explore the idea of introducing Cambridge Global Perspectives to younger learners, we found that interest in the programme was just as high among primary teachers as lower secondary teachers. This enthusiasm meant that Paul Bullen-Smith, Head of Cambridge Global Perspectives at Cambridge International, and his colleagues had little difficulty finding schools to trial the programme with their students from the age of 5 to 14.

As schools already offering Global Perspectives at Cambridge IGCSE and Cambridge International AS & A Level will know, the programme is built around the development of skills rather than the acquisition of knowledge.

“You improve your skills by practice, by reflecting on your work, repeating, iteration,” says Paul. “So creating a Cambridge Global Perspectives programme for students aged 5 to 14 gives more scope for that.”

As with any innovation at Cambridge International, the new Cambridge Primary and Lower Secondary Global Perspectives programme is based solidly on educational research (with the University of Cambridge Faculty of Education) and the views of hundreds of Cambridge teachers. Some 42 schools across the world are now in the middle of piloting the carefully designed Global Perspectives programme with younger students (see case studies on the next two pages).

The new programme is based around ‘Challenges’ – six a year. Each Challenge is six hours long, subdivided into a range of activities. The Challenges are designed to be used in



Schools now have the opportunity, if they choose, to make Cambridge Global Perspectives a core curriculum activity

one-hour blocks, which can be taught as six one-hour sessions or as a six-hour full day. Each of the 50 Challenges focuses on developing a specific skill or skills – for example collaboration or research, which are taught through 24 topics such as ‘keeping healthy’; ‘understanding belief’; ‘sharing planet Earth’.

Teacher feedback supports skills development throughout the programme, while the assessment is through teacher-marked, Cambridge-moderated Checkpoint projects at the end of Cambridge Primary and Lower Secondary.

“We were surprised by the number of teachers in the pilot who talked about skills for the world of work even though they’re only teaching five-year-olds,” says Paul. “There’s a real feeling that they’re preparing their students not for the following year, not even for Cambridge IGCSE, but for the future.”

The programme will be available for first teaching from June 2018 and will be included as part of our Cambridge Primary and Cambridge Lower Secondary offer to schools. Each stage of the programme has been designed to lead seamlessly to the next. Face-to-face training will be available from around March 2018. ■



Assessment is formative with teacher-assessed, Cambridge-moderated Checkpoint projects

GETTY IMAGES



CASE STUDY 1

The Clermont School, Colombia

The Clermont School introduced Cambridge Global Perspectives four years ago, and two years ago took Cambridge IGCSE Global Perspectives for the first time. After receiving outstanding results in 2016 and being invited by Cambridge to be part of the world pilot for Cambridge Primary and Lower Secondary, the school realised the potential the programme could have with the younger students. Now the school is trialling the programme for students aged 10 to 14.

Students at The Clermont School, Colombia: “Global Perspectives is going to stay with the school for a long time”

“The response from the students is very good,” says Marco Cabrera, Head of Humanities and Cambridge IGCSE Global Perspectives Teacher at the school. “They want to learn more about Global Perspectives. We have a Model United Nations in the school and they’re becoming more interested in that. They’re starting to read about current affairs here in Colombia and internationally. I can see them becoming more confident, responsible, motivated and happy.”

Clermont is a bilingual school and integrates Cambridge programmes with the Colombian curriculum. In Marco’s view, Global Perspectives at Lower Secondary enhances the students’ English and history skills too. “We teach some of the Cambridge subjects in English and others in Spanish. But having Global Perspectives in English for younger students allows them to work on their English usage at the same time as developing their critical thinking and interdisciplinary skills. I think it goes hand in hand with the school’s English programme,” he says. “Global Perspectives is an educational programme that provides students with twenty-first century skills and is going to stay with The Clermont School for a long time.”

CASE STUDY 2

Gateway Group of International Schools, Sri Lanka

“This pilot programme is very interesting, even for the teachers, because it’s all skills oriented,” says Nirmali Wickremesinghe, Consultant to the Gateway Group of International Schools.

“The programme concentrates on six skills, delivered through Challenges, which are necessary for life: reflection, communication, collaboration, evaluation, research and analysis.”

The group of four schools did not previously offer Global Perspectives at all, but do so now as part of the pilot.

At Gateway, now all students from age 5 to 14 are on the programme, and Nirmali hopes that these skills the students develop will be assets throughout their lives. In preparation for the



“It’s a wonderful way of incorporating skills that are so important to the learning process”

Gateway Group of International Schools, Sri Lanka
Integrating Cambridge Global Perspectives into their curriculum

pilot, Nirmali and Manjari Tennakoon, a Deputy Head from Gateway, travelled to Cambridge for a briefing in April 2016.

“Now we have regular Skype interviews with the regional team at Cambridge International and we are connected to other schools too. There’s been a lot of support,” says Nirmali.

Back in the classroom, the schools are concentrating on integrating Global Perspectives.

“We find it’s a wonderful way of incorporating skills that are so important to the learning process,” Nirmali says. “There are no separate Global Perspectives lessons – the Global Perspectives Challenges are incorporated into their curriculum. It’s very effective and I think that’s how all subjects should be taught: children are taking responsibility for their learning and they are sharpening their learning skills.”



If you’d like to receive information about the new Cambridge Primary and Lower Secondary Global Perspectives programme, please register your email address at www.cambridgeinternational.org/global-perspectives-form





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www.hoddereducation.com/CambridgeAssessmentInternationalEducation1



Solving the problem of making maths fun



Whether they like it or not, your students will study mathematics for most, if not all, of their school life. Cambridge Schools Conference speaker, **author Alex Bellos**, offers his advice on how to engage those who don't have an instant love of the subject

Alex Bellos is fortunate – he has always been good at maths. “It was the subject I liked most as a kid but probably because I was good at it. For me, maths was fun and amazing – full of surprises. I really like having to think abstractly and I thought it was much more creative and intellectually stimulating than any other subject.”

But Alex is aware that not everyone feels the same way. “I knew maths could have a reputation for being boring so I wanted to show that it's interesting. I worked as a foreign correspondent in South America and I thought I could bring those skills to writing about maths.”

The result was the award-winning *Alex's Adventures in Numberland* for which Alex travelled around the world to seek out anecdotes that tell some of the stories behind mathematical achievements. The book has been translated into more than 20 languages and sold more than 200 000 copies around the world. But Alex had not predicted its biggest fans.

“The people who really responded to it were adults in education and children age 14 up. Teachers told me that they used my stories to enliven their lessons. It's also been very humbling that many children have got in touch to say they have decided to study maths in further education because of reading my book.”



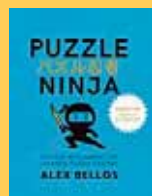
“A great theorem like Pythagoras' has equal if not more value than a Shakespeare play”

Alex puts the success of the book down to the art of storytelling: “As a journalist, you understand how to write complicated things simply and you know how to tell a story. When you're learning maths, often no one tells you the amazing stories behind the theories. Telling stories gives students a bit of context – the personalities behind the discoveries. A great theorem like Pythagoras' has equal if not more value than a Shakespeare play.”

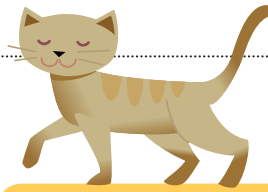
It was a blog post Alex published in 2015 that led him to realise the educational value of puzzles and to publish *Can You Solve My Problems?*

“I posted a puzzle known as Cheryl's Birthday that I'd spotted on a Singaporean website. It is without question the most successful thing I have ever done. I had more than five million views. More people wanted to know about that puzzle than what was happening in international politics.

“There is something massively addictive and viral about puzzles – they encourage your competitiveness with others and with yourself, and people like to be



Alex Bellos graduated from Oxford University with a degree in Mathematics and Philosophy. He immediately started working as a journalist. In 2007, 17 years into that career, he published his first book on maths, *Alex's Adventures in Numberland*. Other titles include the maths colouring book *Visions in Numberland*. His sixth book, *Puzzle Ninja*, is published this October. He sets puzzles in his regular blog for UK newspaper, the *Guardian*, and he is the inventor of the game Loop, played on an elliptical pool table.



“These sorts of puzzles are a fantastic metaphor for mathematical thinking”

set challenges that have achievable goals.”

His latest title *Puzzle Ninja*, published in October 2017, is a compilation of 200 Japanese grid puzzles: “Almost all the grid-logic puzzles such as Sudoku, KenKen and Kakuro come from Japan so I went there to research why. One of the reasons is to do with the Japanese way of life but it is also because these puzzles are language independent. You don’t need to explain them as there are very simple rules – a student will understand instantly what they need to do. If you judge the level right, it’s engaging and fun. If they don’t get the answer, students will realise themselves so you are never saying to them ‘you got it wrong’. Going back to find out where you made the mistake becomes an extra puzzle within it that makes you feel good. Puzzles can be like jokes – just as you get a *Haha* moment with a punchline, you get an *A-ha!* moment when you work it out.

“These sorts of puzzles are a fantastic metaphor for mathematical thinking. Students use logical thinking, which is the bedrock of mathematics. As you fill in the grids, you build up strategies. For example, you know that if the number three is in a corner, you can’t have a number three next to it. If you are confronted with that position again, you don’t need to work out what to do, which is very much like a theorem – you prove a theorem and once it’s proved you just refer to it. It’s a really nice analogy for how you do maths.”

Alex is also a believer in engaging children in maths through pictures: “Beautiful images taken from maths are both aesthetically and conceptually interesting. I often use the Ulam spiral, in which you colour in the prime numbers – it gives you a really

Are you smarter than a cat?

Can you solve it?

A straight corridor has seven doors along one side. Behind one of the doors sits a cat. Your mission is to find the cat by opening the correct door. Each day you can open only one door. If the cat is there, you win. You are officially smarter than a cat. If the cat is not there, the door closes, and you must wait until the next day before you can open a door again.

If the cat was always to sit behind the same door, you would be able to find it in at most seven days, by opening each door in turn. But this mischievous moggy is restless. Every night it moves one door either to the left or to the right.

How many days do you now need to make sure you can catch the cat?

Did you solve it?

For some clues and the solution, go to: www.theguardian.com/science/2017/jul/03/can-you-solve-it-are-you-smarter-than-a-cat

Posted on Alex Bellos's Monday puzzle on the Guardian website and originally published in The New York Times' Numberplay column.

deep insight into what prime numbers are.”

He also urges teachers to show how maths underlies all subjects: “Maths comes into everything. In psychology, for instance, if you ask someone to choose a number between one and 10, most people say seven. That’s because people are doing some arithmetic in their heads spontaneously. They are doing maths without realising they are doing maths. You can use that anecdote to get into talking about arithmetic – what is special about the number seven?”

Alex’s session at the Cambridge Schools Conference will reflect his way of thinking:

“My selling point is that I’m not a teacher. You’re not going to get lesson plans but you might get a whole new perspective or ideas about things to talk about in your lesson. I try and enthuse people about the fun that you can have with mathematics and how interesting it can be. That’s the plan!”

Giving schools more choice for maths

To keep students engaged in maths, schools need to be able to organise their maths programme to suit each student’s ability. That’s why we are extending our curriculum to include a new Cambridge International AS Level Further Mathematics syllabus – it gives students the option to choose either a further probability and statistics route or a further mechanics route. Students can use the AS Level as a staged pathway to Cambridge International A Level Further Mathematics (see page 21). All our maths syllabuses are listed below. They develop students’ knowledge progressively, and the tiered assessment structure at Cambridge IGCSE helps schools manage the way they group students and teach the content.

| Subject | Cambridge IGCSE | Cambridge O Level | Cambridge International AS Level | Cambridge International A Level |
|--------------------------------|-----------------|-------------------|----------------------------------|---------------------------------|
| Mathematics | ✓ | ✓ | ✓ | ✓ |
| Additional/Further Mathematics | ✓ | ✓ | ✓ | ✓ |
| International Mathematics | ✓ | | | |



Alex Bellos is speaking at the Cambridge Schools Conference, *Learning and achievement for all*. For more information, visit www.cambridgeinternational.org/conference



Nurturing *life-long* learners

Director of Education, Tristian Stobie, explains how the new guide *Developing the Cambridge Learner Attributes* can lead to deeper engagement

The purpose of the Cambridge learner and teacher attributes – confident, responsible, reflective, innovative and engaged – is to support the development of five powerful and highly desirable habits that will inspire students to love learning and help them to lead fulfilled and successful lives.

Since the attributes were first developed in 2011, schools have asked us for more guidance, which has resulted in our new *Developing the Cambridge Learner Attributes* guide. Writing it also provided an opportunity for us to synthesise much of the material discussed at Cambridge Schools Conferences over the last six years and review literature and research in this area.

Many schools have commented that they acknowledge the Cambridge learner attributes but struggle to provide ways of engaging with them deeply. As Cambridge International moves towards a broader educational focus, we are also considering ways in which our educational programmes and professional development activities can better support schools to make the Cambridge learner attributes a real and

Clockwise from top left:

Chisipite Senior School in Zimbabwe, Southland Girls' School in New Zealand and Confucius International School in China

fundamental part of their educational provision.

The central idea of the guide is for students to become effective life-long learners. A great deal of attention needs to be on learning habits, as well as on knowledge and literacies. This means focusing on the processes of learning, not just the products.

The Cambridge learner attributes facilitate this by providing a cross-curricular language and set of expectations for all students and teachers. Learning habits describe how students approach situations, environments and challenges. They include a combination of values, attitudes, knowledge, skills and strategies. They also assume competence, which is the skilled and appropriate application of the attribute.

Schools from 15 different countries contributed case studies to the guide, explaining how they have adapted the Cambridge learner attributes to support their own mission and aims. They also describe how they create – or use – existing, complementary programmes to support valued learning. Being able to look at practice as well as theory adds enormously to the guide and we are very grateful for their contributions.



“A great deal of attention needs to be on learning habits”

We hope the guide will be useful for schools. It has been written for a wide audience, including governors, principals, teachers, students and parents in order to provide a focus for discussion and to help schools prioritise the attributes in their broader communities. Some key messages are:

- In order to achieve positive results, the culture of the school needs to be deeply understood. Schools can learn from each other but every school is unique and must construct its own curriculum and develop its own approaches. One prescription is not suitable for all.
- A well-constructed curriculum is more than the sum of its parts.
- The attributes need to be infused into teaching and learning in all disciplines and activities; they are the concern of everyone. There are powerful ways that teachers can develop the attributes through thoughtful lesson planning and execution.
- Nothing is more important than teachers and school management exemplifying the attributes in their day-to-day behaviour.
- Students and teachers need to learn to understand how they learn and the role reflection, reasoning and emotion play in the process.
- Challenge plays a critical role across the curriculum in developing disciplinary understanding, confidence, responsibility and self-regulation.
- Developing the learner attributes will result in better performance in high-stakes assessments as well as helping learners to lead fulfilled lives. ■

Developing the Cambridge Learner Attributes

The seven-chapter guide covers:

1. The learner attributes in teaching and learning
2. Designing and delivering a curriculum that supports the development of the attributes
3. Reflection
4. Innovation and creativity
5. Student wellbeing
6. Responsibility and engagement through community awareness, service and student leadership
7. Developing the Cambridge learner attributes through Cambridge Global Perspectives and Enterprise



The Wicked Wonders candle company devised at The Heritage Private School

CASE STUDY

The Heritage Private School, Cyprus

Year 12 student Eleni Socratous: "Cambridge learner attributes encourage intellectual curiosity, perceptiveness and self-reflection, assisting students to nurture their inner leader.

"The Heritage Private School instils the Cambridge learner attributes through its academic and extracurricular activities, helping all of us in our school community of many different nationalities and backgrounds become well-rounded international citizens, and prepared for the many opportunities the future holds. Having the opportunity to be part of the Cyprus Youth Parliament and to take part in the Model United Nations sessions in both Nicosia and The Hague gave me the confidence to state my opinions in public, forming speeches and resolutions. Giving speeches has never been my forte, but through my Cambridge IGCSEs and now my Cambridge International A Levels, I am developing the skills necessary to succeed in these activities.

"Cambridge learner attributes are also engaged through the Junior Achievement Programme, which focuses on organisational and innovation skills. You not only have to devise and develop a product that is original and creative enough to be saleable, but you also have to learn the basic procedures of running a business. Being Finance Manager of our candle company 'Wicked Wonders' helped me acquire an insider's view. In essence, the Cambridge syllabuses and the Cambridge learner attributes activate all of the attributes necessary to make the best future global leaders."



This is an extract from a case study in Developing the Cambridge Learner Attributes.

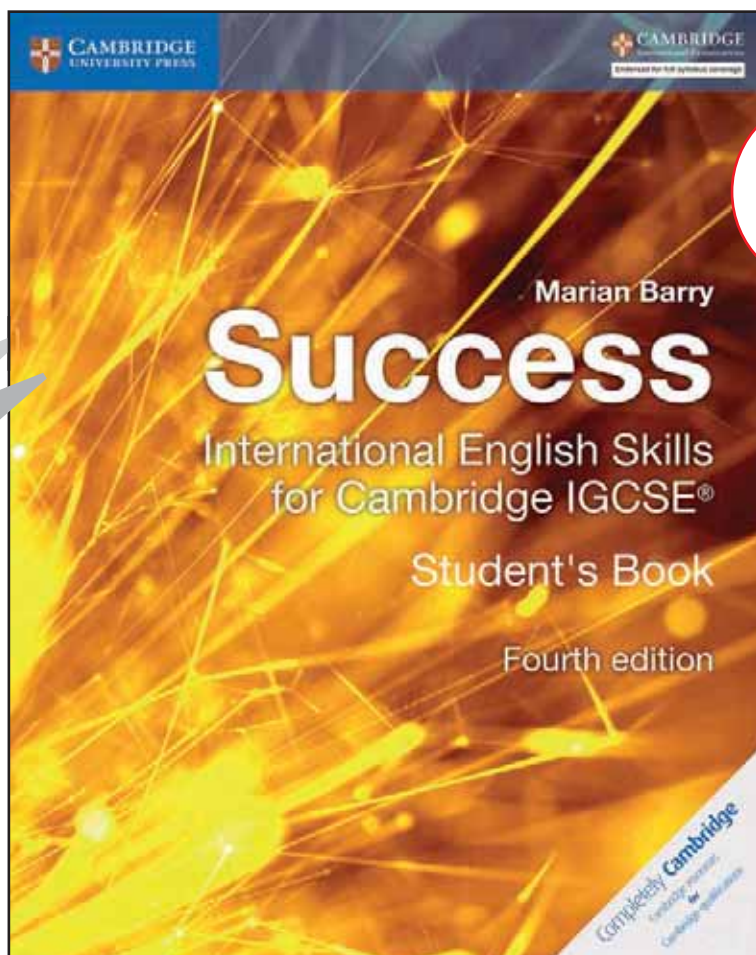
Find the guide at www.cambridgeinternational.org/learning





CAMBRIDGE
UNIVERSITY PRESS

The latest addition to your toolbox for English

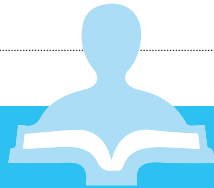


New
updated
edition

The fourth edition of this challenging title includes a wider range of text types and more audio, providing students with a deeper insight into the language.

With more exam-style questions in every unit and strong grammar and vocabulary focus, the course offers comprehensive support to develop fluency, accuracy and range.

Discover more at education.cambridge.org/ESL/IGCSE



Top tips for exam success

We asked some of our top-scoring alumni for their tips on how best to prepare for Cambridge success

“Get comfortable with the materials to the point where you can tell someone about a certain topic anywhere, any time, and practise doing past exam papers to familiarise yourself with the different question types and answer styles.”

Sirin Charasyosvuthichai is an Investment Banking Analyst at Morgan Stanley in Singapore. She won Outstanding Cambridge Learner Awards including Top in Thailand for Cambridge International AS & A Level Business.



“Studying for Cambridge International A Levels allowed me to apply my knowledge and think beyond what is given in textbooks. While preparing for the exams, my objective was to understand my subjects thoroughly.”

Amrita Date, a former student at Podar International School in India, won several Outstanding Cambridge Learner Awards including Top in the World for Cambridge International A Level Chemistry. She is now at the University of Mumbai.

“Start preparing early – I started preparing for my Cambridge IGCSE Mathematics four months in advance. This makes your preparation stress free. Finding a study partner would be very helpful, too.”

Honour Olatunji, a student of Greensprings School, Lagos, Nigeria, won a Top in the World award for Cambridge IGCSE Mathematics (Without Coursework) in June 2016.

“Don’t just study hard, study smart. Study with friends and ask each other questions. It will help you understand your own level of understanding based on how well you can answer their questions. Even when you help a friend in a subject, you are revising at the same time. It’s a win-win situation. Exams can be back to back, or one day after another. It is stressful enough to study for multiple papers, so once you are done with one, do not overthink it and don’t ever try to recall each and every mistake.”

Nia Sugianto So (below), from Indonesia, is a former student of Lodge International School, Kuching, Malaysia. She gained A* grades in Cambridge International A Level Biology, Chemistry, Economics and Mathematics.



“To prepare for exams, my school structured a daily schedule which encouraged focused studying. I also took advantage of our revision classes, tutorial sessions, and lots of help and advice from my teachers. In order to succeed, I would advise other students to listen to their teachers, work very hard and be prepared to do a lot of independent studying.”

Ikeoluwa Komolafe, from Lifeorte International School, Ibadan, Nigeria, was a Top in the World student, Cambridge O Level Religious Studies (Bible Knowledge) in November 2016.



“Having done so many exams, from Cambridge IGCSEs and A Levels to ones at university, I genuinely believe that you need to understand the course materials rather than just memorise the details word for word. I believe this is closely linked to choosing subjects that you are passionate about; an opportunity that Cambridge offers with its A Levels.”

Danny Huang, former student at The ABC International School, Vietnam, received three A* grades in Cambridge International A Level Physics, Chemistry and Biology, and A in Mathematics. Danny is now studying for a PhD in Engineering at Cambridge University.



“If you still haven’t figured out your learning style, try a quiz online to figure it out. For me, my learning style varies depending on the subject. In the case of natural science, I learn best by using a visual learning style – watching videos like Crash Course, Discovery Channel or National Geographic documentaries. But for social science subjects, I learn best through a reading and writing learning style.”

Thanh Tran Hoai, former Cambridge student at Singapore International School, Gamuda Gardens, Vietnam is currently studying Civil and Environmental Engineering at Korea University with a full scholarship. 📖

Prepare early, sleep sufficiently and never be afraid to ask the dumbest questions.”

Michael Liaw Jia Yung, a former Cambridge student, is now studying for a Bachelor of Electrical and Computer Systems Engineering at Monash University, Malaysia.



“I think doing mock exams periodically is essential for exam preparation, especially a month prior to the exam. They are good measures to indicate students’ performance in the real exam, and which part of the materials students need to re-study. One more important thing is to keep ourselves healthy both physically and mentally. It’s crucial to get a good night’s sleep, eat well, and keep your mind refreshed.”

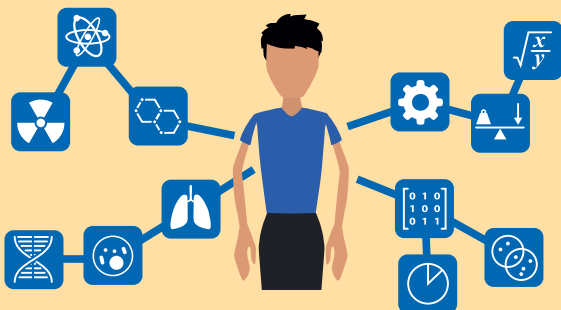
Lukas Primahatva Adhitya Krisna, from Central Java, Indonesia, and current student at the Institut Teknologi Bandung received A* in Cambridge International A Level Physics, and A in Mathematics and Chemistry, as well as 8.8/10 in the National Curriculum.

How we create an exam paper

We create more than 3000 different Cambridge IGCSE, O Level and International AS & A Level papers every year. Here's how we do it

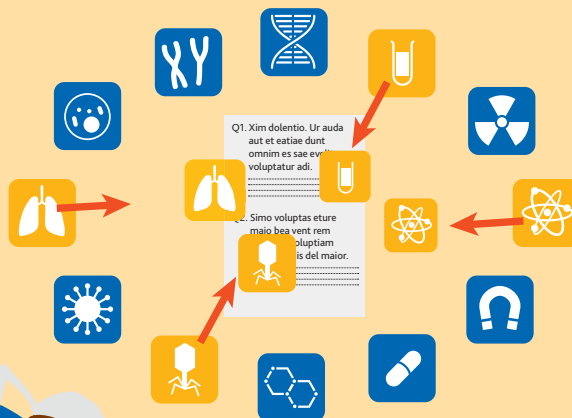
Start here...

Each exam paper starts its life about two years before candidates take it. Whatever its style – from multiple choice to essay questions – we want to create a paper that allows students to show the knowledge, skills and understanding they've acquired during their studies.



Experts get to work on the individual questions. Each question must offer the right level of challenge and relate to the content of the syllabus. A good exam paper has a range of questions on it – from straightforward to more demanding ones that challenge the most able students.

Each paper is created by a team of experts who have extensive experience of assessment, how best to test knowledge and skills, and also experience in teaching the subject, which ensures a high quality of exam paper.



The experts look over previous exam papers to make sure that past students understood exactly what they had to do for every question. This helps them write new questions that are clear for all students.



They then decide what areas of the syllabus to focus on. Not every part of the syllabus is examined every year, but over a number of years, the full syllabus will be assessed.

While writing the questions, the experts also create the mark scheme. The mark scheme outlines what knowledge and skills need to be demonstrated in order to gain the marks for the question, and will guide the examiners when they mark the answers.

When all questions are finalised, we have a complete paper. This is then checked thoroughly and proof read to make sure the printed version matches the one finalised by the panel.

A reviser joins the panel to review all the exam questions again. The team works together to make sure that all questions are clear and error free, and that the questions test students according to the mark scheme.

An expert in the subject sits the exam paper, checking that the questions are clear and provide different levels of challenge, and that all the questions can be completed in the time available.

The hundreds of exam papers we create every year include specially modified versions in formats like large print and Braille, so that our papers are accessible to as many students as possible.

Finally, experts approve the exam paper and the final version is now ready to be sent off to be printed at our secure printing centre.

Printed exam papers are sent around the world to schools and colleges, ready for the exam.



Watch the video

Find out more at
www.cambridgeinternational.org/examsandresults

Community spirit



Samik Ghosh, Principal of Candor International School in Bangalore, India, knew in his heart that forming a Cambridge School Community with neighbouring institutions could only be a good thing

“Throughout my career, I’ve worked at schools that were members of organisations,” Samik Ghosh says.

“We gained a lot and did activities that brought students together. So, when the proposal came from the Cambridge regional team for school heads in Bangalore to meet, I’d already had the thought that this would be good.”

The Bangalore Cambridge School Community had its first meeting in March 2016, with 15 heads attending. Initially, Samik says, there was some nervousness about sharing information – the international school market in India is a competitive one – but it took only one meeting for everyone to realise that the benefits would outweigh any such concerns.

“The message became very clear: the purpose was to communicate and share ideas,” he says. “The Community has completely made us trust each other. We’re now very collaborative, sharing each other’s good practices. I can just pick up the phone to talk to another principal and say ‘I’ve got a new teacher for this subject, can your teacher have a word with her?’ Since our meetings started, that sort of thing is happening all the time now.”

The Community meets about once every six weeks, either in central Bangalore or at one of the member schools. There are now 20 schools in the Community. The meetings have also grown, so not only do the heads meet but workshops for teachers

of the same subjects, counsellors and exams officers take place at the same time.

Ultimately, though, it is the students who benefit the most. “The main benefit for them is indirect: whatever we discuss or decide is all for the students,” Samik says. “There’s also a direct benefit: we’re now doing joint activities such as art exhibitions and drama, so students are getting to know each other.”

Samik believes that being in the Community has strengthened ties between Cambridge International and the member schools. On the one hand, individual schools can share information that they have got from interactions with Cambridge; on the other, the Cambridge regional team can use the Community as an advisory group.

There’s lots of potential, too. “We’re discussing putting together a film studies curriculum between the schools,” Samik says. “We’re also talking about bringing students together for a charitable cause. There is still a lot that this Community can do.”

All together now
The Cambridge School Community in Bangalore

“The message became very clear: the purpose was to communicate and share ideas”

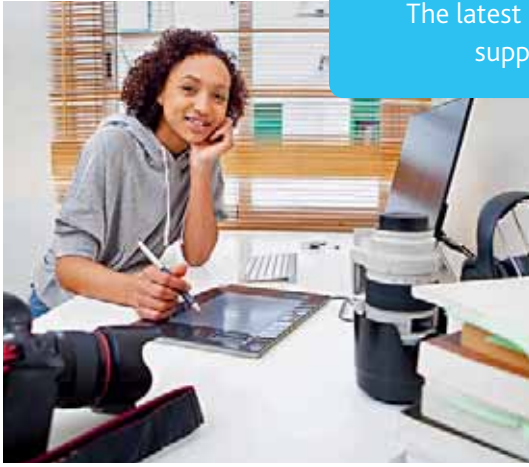
i If your school is interested in setting up or joining a Cambridge School Community, please contact your local Cambridge representative.

Candor International School
One of 20 schools in the Bangalore Cambridge School Community



Support for schools

The latest resources and developments to support you and your learners



GETTY IMAGES

Cambridge International AS & A Level: what's new for teaching in 2018

Digital media & design

Cambridge International AS & A Level Digital Media & Design (9481) is an exciting new qualification that allows artists to explore ways of expressing themselves using digital media. It supports learners with an interest in the digital arena, and develops skills needed for the study of digital media and design in higher education and work in the creative industries. For first examination (AS Level) in June 2019.

Further maths

We have introduced a new Cambridge International AS Level Further Mathematics (9231) to give students a staged pathway to Further Mathematics at Cambridge International A Level. The AS Level syllabus gives schools and students the flexibility to choose either Further Mechanics or Further Probability & Statistics to study alongside Further Pure Mathematics 1. Available for first examination in June 2020.

More revised syllabuses

We have also revised Cambridge International AS & A Levels in:

- Art & Design (9479)
- Mathematics (9709)
- Music (9483)
- Thinking Skills (9694)
- English General Paper (8021) – this syllabus replaces General Paper (8001 & 8004)

Find details of all our revised syllabuses and sign up for updates at: www.cambridgeinternational.org/new



Approaches to learning and teaching

We have produced a new series of practical subject-specific guides for teachers working with international programmes and qualifications that help put theory into practice. The *Approaches to Learning and Teaching* series offers support for subject teachers as well as those studying professional development qualifications or international PGCEs.

The guides are the result of a close collaboration between Cambridge University Press and Cambridge International, and consider the local and global contexts for planning and teaching international programmes and syllabuses. They also consider the impact on students of different approaches to learning and teaching.

Ideas for each subject are presented with practical examples and there are downloadable resources for lesson planning.

Visit www.cambridge.org/approchestolearning

Mentoring and reflective practice

We've added two interactive resources to our *Getting started with...* series.

Getting started with Mentoring and *Getting started with Reflective Practice* complement the four existing resources on active learning, assessment for learning, language awareness and metacognition.

In each resource, we explore the theory, discuss the benefits and consider some practical examples, with teachers and researchers sharing their experiences. Reflective questions help teachers think about how they can apply what is being discussed in their lessons.

Find the resources at: www.cambridgeinternational.org/learning



New support sites for Cambridge Primary and Cambridge Lower Secondary

We have improved the look and structure of our support sites for Cambridge Primary and Cambridge Lower Secondary (the new name for Cambridge Secondary 1), making them easier for you to use.

You can now produce more detailed reports to highlight the strengths and weaknesses of students – helping you to track their progress and make targeted improvements to teaching and learning. Each site also has a new help section.

You can still access all the teaching and learning resources, such as curriculum frameworks, Teacher Guides and schemes of work, that help you plan and deliver your Cambridge programmes.

Cambridge Primary Progression Tests and Cambridge Lower Secondary Progression Tests can still be managed from within the respective sites. You can use the tests to check learners' progress and download question papers and mark schemes for each subject – English, English as a second language, maths and science.

The new sites are mobile responsive so the screen size adjusts to the device you're using too.

Visit <https://primary.cambridgeinternational.org> and <https://lowersecondary.cambridgeinternational.org>

Example Candidate Responses

We have updated the format of our Example Candidate Responses (ECRs), which help teachers see the level of performance needed to achieve key grades and understand exactly what examiners are looking for. The new format includes examiner comments and annotations, guidance on how the candidate could have improved their answer and common mistakes.

ECRs are available for a wide range of syllabuses on Teacher Support at <https://teachers.cambridgeinternational.org>

The latest additions to the range are:

Cambridge IGCSE:

Biology (0610)
English – First Language (0500)
Malay Foreign Language (0546)

Design and Technology (9705)
Economics (9708)
English Language (9093)
Physics (9702)

Cambridge International AS & A Level:

Accounting (9706)
Biology (9700)
Business (9609)
Chemistry (9701)

Cambridge Pre-U:

Art History (9799)
Business & Management (9771)
History (9769)
Music (9800)

Improved support for exams officers

Exams officers play a vital role in running exams successfully, and it is important we support them well. Here are the latest developments:

Online training course: Getting to know the Cambridge Exams Cycle

This course will be completely re-designed in October to make it more accessible and relevant to both new and experienced exams officers. Exams officers will be able to access small, specific modules of learning in their own time, and put questions about the training directly to our exams officer team without having to call Customer Services. Find the course on the Professional Development Learning Community at <http://learning.cambridgeinternational.org/professionaldevelopment>

Cambridge Exams Officer eNewsletter

Our eNewsletter continues to be a vital resource as it contains all the latest information on the Cambridge exams cycle, any important changes and news on training events. If you are an exams officer and are not currently receiving it, please contact us at info@cambridgeinternational.org



Cambridge Handbook 2018

The *Cambridge Primary and Lower Secondary Checkpoint Administrative Guide* has been incorporated into the *Cambridge Handbook* for 2018. It will be published online and in hard copy.

School Support Hub

We are currently developing a new School Support Hub to replace Teacher Support. The improved search facility will make it easier for you to find and download the high-quality assessment and teaching support materials you need to deliver Cambridge programmes.

The School Support Hub will also include online forums where you can share ideas, experiences and best practice with Cambridge colleagues around the world. You will simply need your Teacher Support username and password to access the new site, as well as your own unique email address. The unique email address is important because one of the new features of the site is that everyone will have their own individual account – you won't need to share user access with colleagues.

We will let you know when the new site goes live and you will be automatically directed to it from Teacher Support. More next issue.

NEW



Resource Plus for Cambridge IGCSE Sciences

Resource Plus is a new collection of teaching and learning resources to support the delivery of key topics and skills across three of our Cambridge IGCSE science syllabuses: Biology, Chemistry and Physics.

Each Resource Plus provides teaching support for the syllabus as a whole and also focuses on individual topics in depth. Through analysis of exam results and feedback we have identified that these topics can be difficult to teach and learn.

The Resource Plus materials are written by subject experts and focus on specific experiments and practical skills. For each syllabus, Resource Plus includes:

- a skills pack for each topic area
- experiment videos
- interactive Example Candidate Responses
- infographic posters
- schemes of work
- past papers.

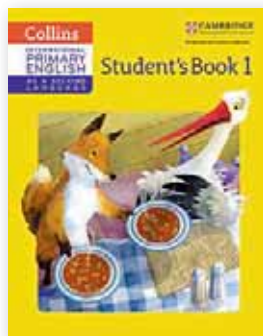
To request demo versions of the Resource Plus materials, go to www.cambridgeinternational.org/resourceplus



GETTY IMAGES

Endorsed resources

We work with publishers to endorse resources to support your teaching. Our subject experts thoroughly evaluate each of these titles to make sure that they are highly appropriate for Cambridge programmes.



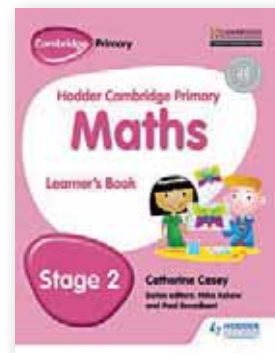
COLLINS INTERNATIONAL PRIMARY ENGLISH AS A SECOND LANGUAGE

RESOURCE: Student Books, Workbooks and Teacher's Guides for stages 1-6

PUBLISHED BY: Collins

Written with a range of international contexts in mind, this highly flexible, six-level course provides coverage of the Cambridge Primary English as a Second Language curriculum framework. Comprising an appealing, magazine-style Student Book, extensive Workbook and supportive Teacher Guide, the course offers progression within and across levels.

Visit: collins.co.uk/primaryenglishSL
 Email: collins.international@harpercollins.co.uk



HODDER CAMBRIDGE PRIMARY MATHS

RESOURCE: Student's Books, Workbooks, Teacher's Packs and Digital Resource Packs at six stages

PUBLISHED BY: Hodder Education

Develop learners' mathematical fluency, problem-solving and reasoning skills using the mastery approach, which helps you to ensure that students master ideas and secure a deep conceptual understanding at all six stages.

Visit: hoddereducation.co.uk/cambridgeprimary
 Email: international.sales@hoddereducation.co.uk



CAMBRIDGE CHECKPOINT SKILLS BUILDER & CHALLENGE – SCIENCE & MATHEMATICS WORKBOOKS

RESOURCE: Student Workbooks (Stages 7-9)

PUBLISHED BY: Cambridge University Press

Do you need differentiated learning support for Cambridge Checkpoint? Our Skills Builder Workbooks provide extra practice and support on specific topics to increase confidence, while Challenge Workbooks are great for when a student is really confident with a topic and would enjoy tackling more challenging activities.

Visit: cambridge.org/checkpoint-workbooks
 Email: educs@cambridge.org

Training *and* events

News and resources to support your continued professional learning

Supporting in-school professional development

A key part of helping Cambridge learners develop the deep subject knowledge and life skills they need to succeed is preparing and supporting their teachers.

We do this by offering a range of professional development opportunities from training courses through to our Cambridge Professional Development Qualifications (PDQs) – internationally recognised certificates and diplomas that give teachers the opportunity to access practice-based learning.

The PDQs are offered through approved Cambridge Professional Development Centres – usually Cambridge schools. At each centre, a programme leader works with us to design and deliver a programme that meets the needs of their school, their teachers and, ultimately, their learners.

Programme Leader Circles

Programme leaders can communicate with each other through an online community, but another useful opportunity has developed through Programme Leader Circles, which are gaining momentum in various regions.



Programme leaders come together face to face or via video link. In Pakistan, where the Circles are most established, programme leaders have been able to benefit from opportunities to collaborate and create a network of support. There have also been presentations on active learning techniques and mentoring delivered by colleagues from Cambridge.

A recent Circle in South Asia featured a presentation on the assessment of the Cambridge PDQ portfolios. Professional Development Manager for South Asia, Nivedita Bose, said, “It was attended by 17 programme leaders with an additional six joining via video link. Programme leaders


The first East Asia Programme Leader Circle, held in Shanghai
Forming a network

worked in groups and bonded with each other, paving the way for a strong network in the region.” One participant said: “I saw some of the common challenges we all face and some unique strengths too.”

Nurturing networks

The first Programme Leader Circle in East Asia took place in Shanghai last November. It was attended by 12 participants from seven Cambridge Professional Development Centres and prospective centres from China and Mongolia.

“Most of our programme leaders there are relatively new,” said Summer Song, Professional Development Manager for East Asia. “The Circle meant that they could begin to form a network and they valued the opportunity to talk to Head of Cambridge PDQs, Paul Beedle.”

The Circles are crucial to the ongoing success of Cambridge PDQs. While geography may prevent every session from being face to face, we are committed to supporting and facilitating these important events. 

For more information on Cambridge PDQs or if you are a programme leader who would like to be part of a Programme Leader Circle, please contact us at info@cambridgeinternational.org

Find training

We offer a large programme of online and face-to-face professional development. Our syllabus-specific workshops cover a wide range of subjects at all levels, and our Enrichment Workshops further support the development of teachers and leaders. For more information on our upcoming training or to book a course, visit our training calendar at www.cambridgeinternational.org/events

Any questions?

To get in touch, go to our Help pages at www.cambridgeinternational.org/help or email us at info@cambridgeinternational.org



Why I became a programme leader



Sila Sagun
Programme Leader for the Cambridge International Diploma in Teaching and Learning, Bilkent Laboratory and International School (BLIS), Turkey

Sila Sagun says:

I value the need for coherent, ongoing and rigorous professional development (PD) for teachers. In my opinion, it is important to have a regular programme of PD and in-service training with a common philosophical approach to education in schools.



“The elements of the Cambridge PDQ make it a complete holistic package and the online courses were invaluable”

I have experienced the practical benefit of continuous research in my own teaching. Unfortunately, not every teacher has the opportunity to research further after graduating – particularly here in Turkey. There are not many opportunities for teachers to share knowledge and experiences. The need for more PD opportunities drove me to become programme leader of the Cambridge PDQ at BLIS. The elements of the qualification – individual learning through research, work-based learning with colleagues and guided learning sessions – make it a complete holistic package, and the online courses I took to become a programme leader were invaluable with lots of regularly updated resources to design the programme plan needed at BLIS. The Cambridge PDQ has encouraged us to develop a culture of professional learning. It creates opportunities for teachers to work as a team – discussing ideas, trying them out in the classroom and providing feedback.

The researcher

Our research programme feeds directly into the design of our programmes – **Stuart Shaw, Head of Research**, explains how, and why analysing the data can be a lengthy and complex process



Our research programme runs from 1 October through to the end of the following September. There’s a real variety of activities in it – from full-blown studies to requests from colleagues for research input into a project they’re working on. We are a small team, but there are over 80 researchers we can call on within Cambridge Assessment. I start writing the programme six months before we start work on it.

Requests for research come to our team from across the organisation. A subject specialist might want us to look at features of a mark scheme, for example. We prioritise the requests and bring everything together into a final programme of work.

The research data we need might have been on our radar for a long time before we can begin to analyse it. The acquisition of data from the US, for example, can be problematic and it can be 18 months before we get the data to start the research.

We have done a considerable amount of research on question

accessibility, specifically looking at language, which has led us to publish a number of articles and a book. This research has directly fed into question design and item-writing guidelines. We are often asked: ‘What level of English proficiency do our students need to embark on a programme of study/to access and succeed in the examinations?’ We have linked the language accessibility work to the Common European

Framework of Reference for Languages (CEFR) – a guideline used to describe achievements of learners of foreign languages. We can say, for example, most students are going to need a B2 level in the CEFR to succeed at Cambridge IGCSE Sciences. Whereas, for humanities and social sciences, they’re going to need a C1 because of the more complex input and source material.

This research is helpful for our regional directors and assessment staff as they often get questions from centres and schools asking these very things. ■

A view from... Hong Kong



Carole Beer (left), Acting Vice Principal of King George V School in Hong Kong spoke to Cambridge Senior Manager for South China, Hong Kong & Macau, **Jamie Jin**



Field of opportunity
The King George V School, Hong Kong

JJ: What's your school best known for?

CB: King George V School (KGV) is built on strong traditions, has an impressive reputation and is a cornerstone of English-medium education in Hong Kong. The school consistently achieves enviable examination results and has an international and forward-looking approach to education.

Carole Beer

started her career teaching at a school in Liverpool, UK. She arrived in Hong Kong initially on a two-year contract. Now in her 20th year at King George V school, she has held a variety of roles – from a Geography teacher to Head of Careers – and is in her second year as Acting Vice Principal. When not at school, she enjoys spending time with her son, training for her next half-marathon or trail run, and reading.

What Cambridge programmes do you offer?

We offer the Cambridge Upper Secondary stage of the Cambridge Pathway, which includes Cambridge IGCSE. We offer Cambridge IGCSEs in First Language English, Chinese as a First Language, Chinese as a Second Language, Mandarin Chinese, World Literature, Drama, Music, Foreign Language French, Foreign Language German, Foreign Language Spanish, First Language Japanese and

Business Studies. We also offer Physical Education and Geography (expected first exam series for both in June 2018). We have been a Cambridge school for 18 years.

How do you think Cambridge International helps prepare your students for the future?

Cambridge International provides opportunities for students to receive formal qualifications in a wide range of subjects recognised by a variety of education institutes and employers. Generally, when our students leave KGV, they embark on university courses across the globe.

What makes you proud about your school?

The students! KGV has more than 1800 students from over 50 nationalities. Our students are hardworking, disciplined and determined, pursuing academic excellence as well as holistic development across the arts, music and sport. They have an international outlook and embrace opportunities to give back to communities, both locally and globally.

What is your biggest challenge as a school?

Our biggest challenge is something I would see as our biggest opportunity too. At KGV, we believe in personalised learning for all students. We pride ourselves in providing individualised pathways for all students, where needs and interests are addressed and enough scope is given for students to strive to attain personal success. This is not a one-size-fits-all model – a lot of time is given to ensuring students are known individually and guidance is given to support students and parents at crucial decision-making times. ■

Would you like to be featured in this article? Talk to your local Cambridge representative, then email us at outlook@cambridgeinternational.org

Cambridge Lower Secondary English as a Second Language

A flexible three-level course which provides full coverage of the curriculum framework. It is designed to allow freedom in how the course is taught with clear differentiation provided so that the course can be used with students of varying language abilities.



- Inspire your students to develop critical thinking skills across a wide range of curriculum based topics
- Integrate the various skills and promote independent learning through end-of-unit projects
- Encourage your students to read with engaging literature texts
- Provide cross-curricular support to aid the other subjects that students may be studying through English as a medium of instruction

We are working with Cambridge Assessment International Education towards endorsement of this series.

For more information, visit: www.collins.co.uk/international

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Cambridge Schools Conference

Learning and achievement for all



The Winchester School, Jebel Ali, Dubai, UAE
Friday 8 December to Saturday 9 December 2017

This conference will bring together three key areas of practical importance for schools:

- setting high expectations for all students
- understanding that not everyone learns at the same rate or in the same way
- identifying and seeking solutions to barriers to learning.

Our programme is designed to support professional learning by offering a range of perspectives on the conference theme – discuss and debate these in our keynote sessions and workshops.

For more details and to book your place, go to cambridgeinternational.org/conference