

Cambridge

Outlook

THE MAGAZINE FOR CAMBRIDGE SCHOOLS WORLDWIDE

Issue 43, June 2023

Inside



Going digital

Two views on digital learning and assessment



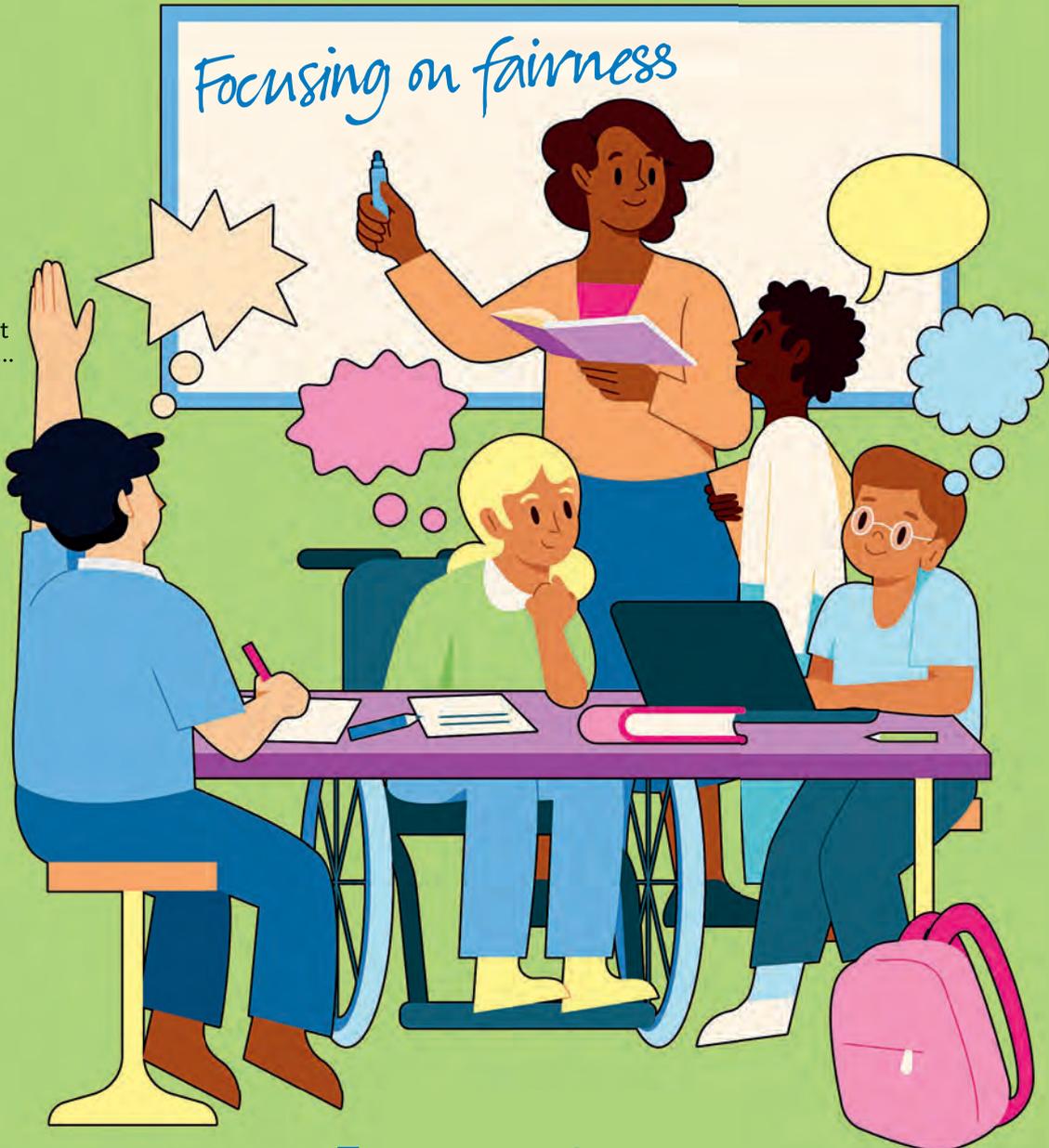
Making progress

How primary tests help teachers plan next steps in learning



A different approach

A Cambridge school with a focus on caring for the environment



Removing *barriers*

How we make sure our assessments are fair for all



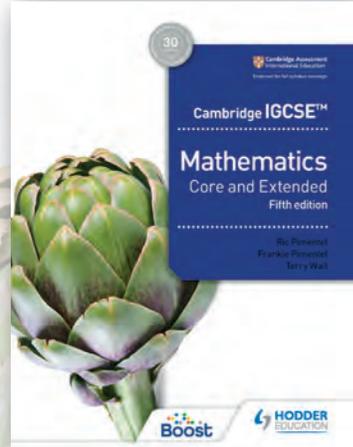
Cambridge Assessment
International Education

New Cambridge IGCSE™ and O Level Mathematics from Hodder Education



Print and digital resources catering to wide ranging needs across the revised syllabuses

Get early access to exclusive content



Cambridge IGCSE™ Core and Extended Mathematics, fifth edition

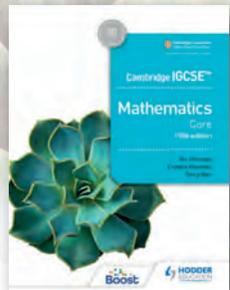
Trust an experienced team of authors offering advice on how to put theory into practice with plenty of exercises, worked examples, solutions and extended questions.

- Encourage full understanding of mathematical principles with commentaries and additional explanations.
- Develop problem-solving skills with guidance on techniques to help complete open-ended investigations and justify reasoning for solutions.
- Check understanding with end of chapter student assessments to consolidate learning and test skills.
- Boost eBooks include Knowledge Tests.

- Student's Books
- Boost eBooks
- Boost eBooks – Teacher's editions
- Workbook
- Teacher's Guide with Boost Subscription

Boost
Boost eBook – Teacher's editions include:

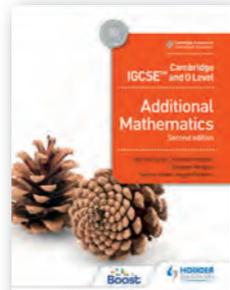
Assign auto-marked Knowledge Tests, access auto-generated formative reports for Knowledge Tests, worked solutions for exercises, mark schemes for review exercises and ESL support.



Cambridge IGCSE™ Core Mathematics, fifth edition



Cambridge IGCSE™ International Mathematics, fifth edition



Cambridge IGCSE™ and O Level Additional Mathematics, second edition



Cambridge O Level Mathematics, second edition

Welcome

ISSUE 43, JUNE 2023

Welcome to *Cambridge Outlook*. I am often asked how Cambridge designs syllabuses and assessments to meet the needs of students in so many different countries. How do we assess students fairly in English if they aren't first language English speakers? How do we make sure a student's cultural or social background isn't a barrier to learning?

In this issue, we are talking about fairness and how we can remove barriers for students. As our Assessment Accessibility Advisor, Lauren Woods, explains on page 7, every assessment goes through an 'accessibility journey' – from syllabus design to support materials and final assessment – with checks to make sure we are giving every student a fair opportunity to show their knowledge and skills.

Helping students unlock their potential is a key part of our mission, and in this issue you can read many inspiring examples of how Cambridge teachers are helping students learn in the way that works best for them – whether that's online, visually or through practical experiences.

We want to do even more to support our community of schools worldwide, and being part of Cambridge's new International Education group is helping us do that. I am looking forward to further developing our group this year – bringing our expertise at Cambridge together for the benefit of students and schools.

We hope you enjoy this issue of *Cambridge Outlook*. Thank you to everyone who has contributed. If you have a story to share, please get in touch at outlook@cambridgeinternational.org



Rod Smith
Group Managing Director,
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, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA, UK
t: +44 1223 553261 f: +44 1223 553558
e: outlook@cambridgeinternational.org



Cambridge Outlook is published on behalf of Cambridge Assessment International Education by DENTSU CREATIVE, 10 Triton Street, London NW1 3BF.
For DENTSU CREATIVE: Sarah Kovandzich, Editor
Cover Illustration: Kiki Ljung



04

Contents

In Focus: Removing barriers to learning

- 4 Introduction**
Exploring ways to make education fair for all students
- 6 Overcoming language barriers**
How Cambridge designs fair assessments
- 9 Your questions answered**
Practical tips and FAQs about access arrangements for exams
- 10 Neurodivergence**
A former investment banker explains why society needs to appreciate and understand neurodivergent people
- Online education**
- 12 Digital approaches**
Insights into online learning and digital assessment



- Support for schools**
- 15 Professional development**
How Cambridge is reaching new audiences online
- 16 The latest resources**
Our latest products, services and endorsed resources

- Case study**
- 18 Making progress**
How Cambridge Progression Tests help teachers plan next steps in learning

A view from
19 India



10

Find out more about how we can support teaching at www.hoddereducation.com/cambridge-igcse-maths



IN FOCUS

REMOVING *barriers*



Paul Ellis, Cambridge International's Head of Teaching & Learning Strategy, introduces this issue's In Focus section, which explores fairness in education and ways we can overcome barriers to learning

When I trained as an executive coach, I was introduced to a simple formula first proposed in the 1970s by the tennis and life coach Timothy Gallwey:

Performance = potential minus interference

The idea is that if you can work out what's getting in the way of you or someone else being successful – whatever nature or level of success you're seeking – you'll be able to reflect on how to reduce, remove or rethink the barrier.

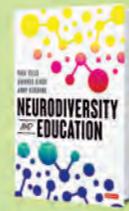
Barriers come in all shapes and sizes. Sometimes they're easy to spot and deal with; at other times they remain hidden or can be harder to resolve. This can be for personal or cultural reasons, and it can also be because of societal expectations that need to be challenged.

In his famous TED Talk from 2006, 'Do schools kill creativity?', the late Sir Ken Robinson, an international advisor on education, spoke powerfully about the perpetuation of norms and expectations that were introduced with the Industrial Revolution some 200 years ago. He said that the standardisation of factory processes led to the standardisation of workers, and schools that would mostly educate for industrial profit-making and competitive marginal gains.

As well as those marginal gains, we got marginalisation. Those who didn't conform



"Barriers come in all shapes and sizes. Sometimes they're easy to spot and deal with; at other times they remain hidden or can be harder to resolve"



Paul Ellis is co-author of *Neurodiversity and Education*, published in 2023 by Corwin Press.

to the standard were rejected and their views were ignored. The world evolved to be a good fit for a notional average, with everything from desks to chairs to driving positions to assessment tools designed with a standard dimension, type or ability in mind.

In recent years, the world has become much more inclusive, and with that have come fresher ways of thinking and evaluating who we are, what we know and what we can do.

In this issue of *Cambridge Outlook*, we're looking at ways we can make education fairer. In our organisation, our aim is to maximise the accessibility of assessments so that all students can demonstrate their real knowledge, skills and understanding. Debbie Howes and Lauren Woods in our Assessment team explain more about this on pages 6–7.

We also offer access arrangements to enable students with specific needs to achieve their full potential in exams (page 9). And we have established a set of principles to make our future digital assessments as inclusive as possible (page 13).

In this issue, we also consider some of the barriers experienced by neurodivergent students.

Just before the turn of the century, the word 'neurodiversity' was coined by the Australian sociologist Judy Singer. It was used to describe the ways in which we all think, move, hear, see, understand, process information and

communicate with each other. Some people may be considered 'neurotypical' because they correspond to a contemporary, dominant norm, and others may be considered 'neurodivergent' because they don't. It's unfair to exclude the latter group just because they don't fit the standard ways of being and of doing.

In an interview on page 10, the founder of the Institute of Neurodiversity, Charlotte Valeur, describes how being neurodivergent – with undiagnosed autism – impacted her education and why she wants to help create a more inclusive world.

I recently came across another memorable quotation, attributed to Dutch purposologist Alexander den Heijer: "When a flower doesn't bloom, you fix the environment in which it grows, not the flower." It's our duty as educators to provide the best conditions so that our learners can perform to their potential.



In this section

- 06** Debbie Howes and Lauren Woods on how Cambridge syllabuses and assessments are designed with maximum accessibility in mind.
- 09** Frequently asked questions about access arrangements for exams.
- 10** Meet business expert and neurodivergence champion Charlotte Valeur.
- 11** Music teacher Sarah Poppe shares her teaching techniques for neurodivergent students.

WHAT IS FAIRNESS?



Dr Simon Child, Head of Assessment Training, Cambridge University Press & Assessment, answers our questions about fairness in education

What do we mean by fairness?

Put in the most simple terms, fairness in assessment is achieved when all learners have an equal opportunity to demonstrate their ability. This is not just thinking about the moment of the assessment 'event' (such as creating an unbiased and accessible examination paper) but also thinking more broadly – for example, ensuring that every student has sufficient opportunities to learn the knowledge and skills required to perform well.

Why is fairness important for students in the context of teaching, learning and assessment?

Across their schooling, students develop expectations, preferences and conceptions about how they're to be assessed. They're also individuals, and a range of factors may influence their assessment performance. Ensuring that students have a positive experience of assessment, no matter what the final result may be, is an important focus of Cambridge's mission.

What do our assessments aim to achieve from a fairness perspective?

Assessments are fundamentally about the collection and judgement of evidence from learners in specified areas of knowledge, understanding or skill. What Cambridge looks to do is to remove all known barriers that might affect how well this evidence is collected. For example, we use research on how students look at images on examination papers to understand how and when they should be used.

What's the ultimate goal?

Assessments are often used to determine the next steps in education. If students, teachers and parents understand that students have received a fair assessment experience, it supports a greater trust in the broader educational system.

OVERCOMING LANGUAGE barriers



Debbie Howes, Deputy Director, Assessment Standards & Quality, explains why the language used in question setting is crucial to creating exams that are fair for all learners

“At any one time, around a million learners are studying Cambridge programmes around the world. We’re committed to setting exam questions that do not create barriers and that allow candidates to demonstrate their full potential,” says **Debbie Howes**, whose team gives guidance and training to question setters.

“We’re setting materials for students from 160 countries – some are first language English speakers, others speak English as a second language. They will all be examined in the medium of English.”

Guidance for question setters

Question setters are provided with a set of principles for accessible language, explains Debbie: “The question setters might be chemistry experts, for example, but not language experts. They adhere to the accessible language principles when they’re writing the exam questions.

“One of the principles focuses on commonly used words, which are often shorter and more likely to be known and understood by candidates with English as a second language – such as ‘find’ rather than ‘locate’.



“We are setting materials for learners in 160 countries”

“Question setters can use online dictionaries to check how frequently a word is used in English, or use the Common European Framework of Reference for Languages (CEFR), which grades words against expected levels of English fluency.”

Another accessible language principle is about avoiding phrasal verbs, as these can have multiple meanings:

“For example, the phrasal verb ‘take off’ may mean ‘to remove’ or ‘to imitate someone’ or ‘an aircraft leaving the ground’. If ‘remove’ is the meaning in the context of the question, such as ‘remove the lid of the container’, the question setter should use ‘remove’.

Debbie’s team has also compiled a set of common command words: “These are words within a question that tell a candidate what they need to do, such as ‘explain’, ‘evaluate’, ‘describe’, ‘analyse’. If you’re a student with English as a second language, you need to understand what these words are asking you to do, and also know that they have the same meaning in the context of different subjects. We publish the command

words and their definitions in syllabuses and on our website.”

Question setters are given training in cultural awareness, too: “A question



might be inaccessible to a candidate because the context or terminology is unfamiliar. If there’s a question about cricket, for example, the learner may have no idea what cricket is, because it might not be popular in their country.”

Checks at every stage

We check a question paper for appropriate language at every stage of the production process.

After the question setter writes their first draft, they complete a checklist to confirm that they’ve considered a range of things, including language accessibility.

Next, the question paper goes to a ‘reviser’, who’s also asked to consider the language. A revised draft is produced, then a group of subject experts meets to finalise the content. One of the aspects they check is the clarity of the language in questions.

The question paper is then sent to a ‘vetter’ – an independent person who hasn’t seen the paper before, and works through it as if they’re taking the exam.

The role of examiners

Examiners are looking for evidence that the candidate

has understood a concept and explained it, says Debbie.

“Candidates are not assessed on their language ability – except where this is part of the course requirements, such as Cambridge IGCSE™ First Language English, for example. Examiners are trained to be flexible to accept a correct answer, expressed in a variety of ways.”

Students need to know subject-specific terminology because an inadvertent language error could make their answer look wrong: “The examiner needs to know that the chemistry student meant [hydrocarbons] alkene not alkane, for example,” says Debbie.

Advice for schools

“Schools can support students by making sure they understand the requirements of the exam and by using the past papers on our School Support Hub so students are familiar with the types of questions and language we use.

“We welcome any feedback from schools about the clarity of the questions in our exam papers. We use this feedback to continually improve and deliver on our commitment to fairness – making sure our exams are accessible for all our learners.”

How we create an exam paper

Watch our video to learn more about how we develop fair question papers:

www.cambridgeinternational.org/what-to-expect-on-exams-day

Understanding command words

View the list at www.cambridgeinternational.org/command-words



Design matters



Lauren Woods, Cambridge International’s Assessment Accessibility Advisor, explains the importance of accessible design

“When we design and develop our assessment materials, we apply principles and processes based on the most up-to-date research and best practice guidance. While much of the accessibility-related guidance is directly relevant to students with learning disabilities, it also applies to students who may experience contextual barriers linked to their socio-cultural background, or linguistic barriers because they are second language English speakers.

“However, the impact goes far beyond that. By minimising features which are irrelevant to an assessment and maximising accessibility, we help all students to demonstrate their real knowledge, skills and understanding.

“We consider accessibility from the moment we begin designing a syllabus, and the journey continues throughout the development of our assessments and support materials.

“One of the most vital features to consider is the language used in tasks, as explained by Debbie Howes (see opposite).

“Equally essential is considering the layout and readability of materials – for example by using consistent font size and style, and avoiding page turns within tasks.

“We also check visual sources such as photos, diagrams or graphs. For example, we ensure that key features are clearly distinguishable and we use clear and consistent labelling.

“Finally, we consider the context used in a task. So, we focus on contexts which are equally familiar to all students, are relevant to and support the learning, and we avoid contexts which different groups of students could interpret differently.

“Part of our work is also to make sure assessment materials are designed to be compatible with exam access arrangements (see page 9), such as reading support or the use of a scribe, and question paper modifications, such as enlargements or Braille.

“Making assessments accessible is not about making them easier. An accessible assessment is more rigorous, as it gives the widest possible spectrum of students the fairest opportunity to demonstrate their true ability.”

MCE Cambridge IGCSE™ Mathematics Series



MCE Cambridge IGCSE™ Mathematics Core and Extended

MCE Cambridge IGCSE™ & O Level Additional Mathematics

Supports the full Cambridge IGCSE and IGCSE (9-1) Mathematics syllabuses (0580/0980) and the Cambridge IGCSE and O Level Additional Mathematics syllabuses (0606/4037) for examination from 2025.



Comes with both print and digital resources* that help 21st century learners and teachers to succeed.



Why Choose MCE Cambridge IGCSE™ Mathematics

Scan to learn more about our MCE Cambridge IGCSE™ Mathematics Series



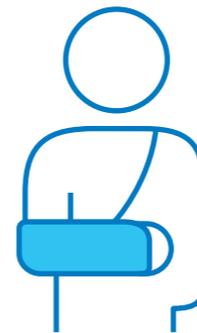
- 1 Engage in motivating and meaningful learning experiences
- 2 Adopt the idea of "slow-thinking"
- 3 Experience a personalised practice pathway

*These resources will not go through the Cambridge International endorsement process.

5 FREQUENTLY ASKED QUESTIONS on access arrangements



Sarah Cottam, Compliance Coordinator for Cambridge International's Access Arrangements team, and **Lauren Woods**, Assessment Accessibility Advisor, answer teachers' questions about access arrangements for exams



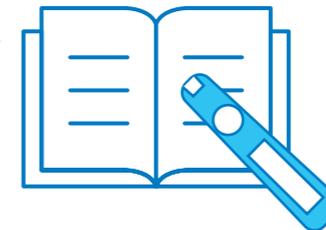
1 What are access arrangements?
Access arrangements are pre-examination arrangements that minimise barriers to assessment for students with a permanent or long-term disability, illness or learning difficulty. They enable students to complete an assessment in a way that allows them to demonstrate their true knowledge, skills and understanding of a subject, without changing the demands of the assessment.

You can also apply for emergency access arrangements for an injury or illness that has occurred shortly before an exam – for example, a broken arm.

TIP! For a list of commonly requested access arrangements and modified papers, see section 1.3.4 of the *Cambridge Handbook*: www.cambridgeinternational.org/handbook

2 How do I know which access arrangement may best meet the individual need of a student?

As well as referring to advice in reports from any specialists (such as a medical professional or educational psychologist), it's important to work directly with your student to establish the access arrangement that best meets their individual needs. For example, if your student has difficulties with reading, trial the different reading-support arrangements, such as a reading pen, a computer reader or a human reader. As soon as you've established the appropriate arrangements, make sure they quickly become the student's 'normal way of working'.



TIP! Trial different arrangements during classwork and homework and have a discussion with the student to decide which arrangements they feel most comfortable with, and which has the most positive impact on their work.

3 What evidence do you need to apply for access arrangements?

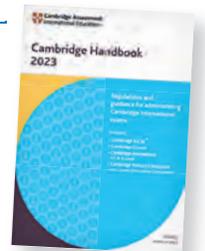
Access arrangements must be based on evidence of the student's barrier to assessment and evidence of their need for the arrangements. The specific evidence required depends on the individual need, and on the access arrangements being requested. In all cases, however, the evidence should clearly outline how the disability, illness or learning difficulty presents a barrier to the assessment. For certain access arrangements, we require scores from psychometric assessments for the student (for example, reading or writing speed scores when requesting extra time). See section 1.3.2 of the *Cambridge Handbook* for more information.

TIP! When compiling your evidence, make sure it's dated within four years of the exam series and is verified by a suitable professional, such as a psychologist, a medical professional, a specialist teacher or a teacher specifically qualified to assess for access arrangements.

4 Is every access arrangement available for every assessment?

A small number of access arrangements are not permitted for certain syllabuses. This is because some access arrangements may affect the assessment objectives.

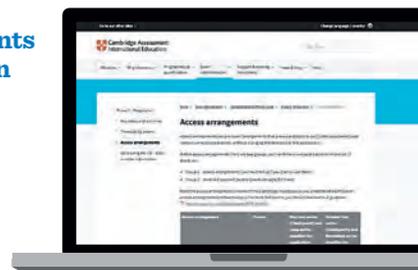
TIP! When considering which access arrangements may be most appropriate, review the syllabuses the student will take alongside our regulations, outlined in the *Cambridge Handbook*.



5 How do schools apply for access arrangements and modified question papers?

You can find application forms and deadlines for applying for access arrangements and requesting modified papers on the 'Access arrangements' page of our website.

TIP! Download examples of modified papers to try out with your student(s).
Go to: www.cambridgeinternational.org/access-arrangements



Neurodivergence

made my career



DENMARK-BORN CHARLOTTE VALEUR IS A FORMER INVESTMENT BANKER AND A CORPORATE GOVERNANCE EXPERT. SHE EXPLAINS WHY SHE SET UP THE INSTITUTE OF NEURODIVERSITY

“I did mediocrely in school,” remembers Charlotte. “I never really fitted in, and when I was given extra lessons in a separate room with a student who was dyslexic, we were labelled the dumb ones. I got bullied in the playground and had to hide in the toilets. I became very silent.

“My mum died when I was seven, so there was that overlay of trauma – I thought I was different because of that experience, but then I looked at my sister and she was the opposite of me.”

In fact, what Charlotte didn’t know until many years later was that she was autistic.

“When I look back, it’s so obvious – I was very inside my own world. I lined up my dolls but didn’t play interactively with them. I didn’t play with my sister, either – I just watched her play with everything. I loved to write down number plates and I would climb trees and sit in them. I found what was around me overwhelming in all the sensory ways.

“At 13, I worked in a library and I loved putting books back in alphabetical order. I read incessantly, but I was reading books that children my age didn’t usually read, such as a Winston Churchill biography. Nobody at school knew, because we were all taught the same things.

“My school experience put me off going into further education, so I went straight from A Level into a banking apprenticeship. By my early 20s, I was on the Copenhagen



“The Institute of Neurodiversity wants to create an equal and inclusive world in which neurodivergent people are well understood and valued equally to all others”

Stock Exchange as a trader for the biggest bank in Denmark – Unibank, now Nordea.”

Charlotte’s next step was corporate governance: “After three years, they said I was an expert. That happened because it was all I read about.”

She went on to hold several directorships, including chairing the UK’s Institute of Directors.

“I’m also a visiting professor of governance and leadership at the University of Strathclyde in Scotland. It’s a huge honour – I didn’t even go to university.

“Neurodivergence has made my career, because it’s driven me to work relentlessly – my ability to hyperfocus helps me. I don’t watch television, I don’t read magazines or fiction and I love gathering facts. I have to be doing something all the time I’m awake.

“I was 50 when a friend asked me if I thought I was autistic. I said no, but I decided to do a University of Cambridge Autism Spectrum Quotient Test.”

The test – a self-administered questionnaire – resulted in a recommendation that Charlotte should get formally diagnosed.

“I thought it must be wrong, so I did another 10 tests and they all came out the same. It was a shock for me, so I thought about it for two years and then decided I had to find out. When I went for my diagnosis, I ticked all the boxes – completely, not borderline.

“A UK charity called Autistica encouraged me to go public with my diagnosis to help raise £10 million for its research.

“The publicity was bigger than I’d anticipated – I was interviewed on TV news programmes and received hundreds of emails. It was overwhelming, but it was mostly kindness pouring out.”

A number of the people who contacted Charlotte were also neurodivergent and from all walks of life: “There were social workers, IT people, bankers, accountants – but we didn’t have a global community where we could come together.

“We set up the Institute of Neurodiversity (ION) at the end of 2021, with the aim of bringing together a million people in 100 different countries before the end of 2025.”

The organisation wants to create a world in which neurodivergent people are well understood and valued equally to all others.

“We collaborate with all kinds of people, including the University of Cambridge. We celebrate ourselves and what we contribute to society.

We also influence research and represent ourselves in terms of policy. We want neurodivergence to be seen from our perspective.

“We’re working with experts who are developing tools that can be used to screen children when they start school, to identify whether they have ‘spiky profiles’. [In people with autism, some skills are very highly developed and others are much lower, leading to a development graph of peaks and troughs.] These tools can give parents an indication of what they can do while they’re waiting for a diagnosis for their child.

“I want more schools to have openly neurodivergent teachers so that these teachers can be champions of neurodiversity for neurodivergent children.

“We need to go from awareness to acceptance to appreciation of who we are as neurodivergent people. Appreciation is where we can thrive.”



To find out more, visit www.ioneurodiversity.org

Visual learning for music

Sarah Poppe, a music teacher at Wentworth College, New Zealand, has taught neurodivergent student Joe (pictured below) for five years. She shares some of her techniques

“Joe is the most creative and prolific composer I know. He’s learning drums and teaching himself the flute.

“In teaching Joe, I realised that creative minds learn differently, so this encouraged me to keep exploring ways of introducing and teaching topics. For example, I used ice-cream toppings to talk about musical texture: monophonic is one line of topping, while heterophonic is a different sauce that follows the first melody line with a few side wiggles, and so on.



“We used dressing up to represent different eras: Baroque was over-the-top frills, Classical was more organised and classic, Romantic was expressive and colourful.

“I have also used a yoga resistance band held by three students, forming a chord, to show physically the tension that suspension brings when two students move and one is left behind.

“To learn Cambridge International AS Level 15-minute set works, I provided a graphic novel with pictures, explosions and colour to help visual learners focus on the stories as they listened.

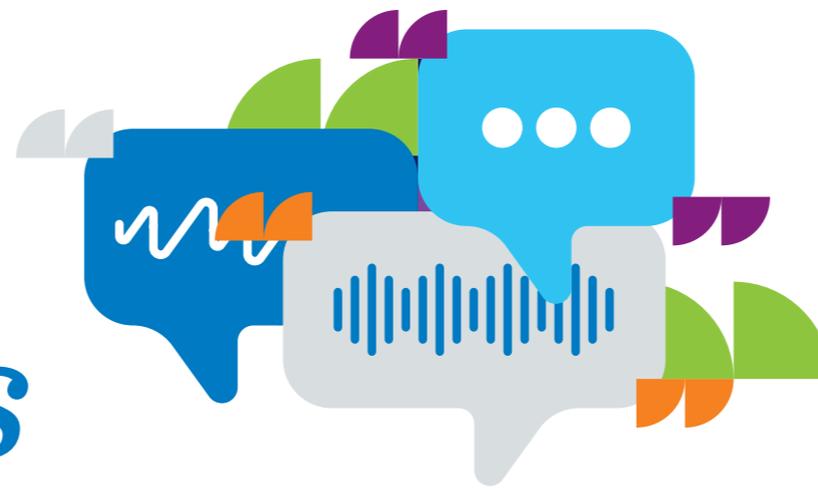
“I also made pictures of stacks of sandwiches to represent the Ritornello and Episodes in Baroque set works, including a spaghetti sandwich for the fugue. This technique for teaching musical structures was so successful that I’ve now included it for every AS Level set work.

“Joe achieved an A in Cambridge IGCSE and a B in Cambridge International AS Level. He’s very happy and proud. He’s now completing his Cambridge International A Level and aims to work as a gaming composer in the future.”

Last year, Joe starred in a documentary that won a top-five prize in the Focus on Ability 2022 Short Film Festival. Watch the film at www.focusonability.com.au/FOA/films/2727.html

Digital approaches

TWO INSIGHTS INTO THE DEVELOPMENT OF ONLINE EDUCATION AND DIGITAL ASSESSMENT



Eli Katz, CEO of South African organisation Boston Online Home Education, talks about setting up an online environment that delivers a Cambridge curriculum.

Boston Online Home Education developed from a physical school in Johannesburg called Ivy, which had been following the South African curriculum. During Covid-19, the school pivoted to an online environment and then applied to be a Cambridge Associate. It now offers Cambridge Lower Secondary through to Cambridge International A Levels.

Eli believes that being accredited by Cambridge is important for two main reasons. “The first is that you have access to all of Cambridge’s resources, which ensures that what you’re teaching aligns with what’s required by Cambridge,” he says. “The second reason is the huge support you get from the local Cambridge representatives.”

Boston Online Home Education is only in its third year, but Eli says they have been able to use the learnings from Boston City Campus (an online higher education institution that’s also part of the Boston Group), which started 31 years ago.

Setting up an online learning environment

Eli describes Boston Online Home Education as a whole ecosystem. “It’s much more than just content,” he explains. “That’s why we’re called ‘home education’, as opposed to ‘online school’ – if a learner is to be successful at studying online, they need support from other people – particularly their parents.”

Creating that ecosystem started with transforming the Cambridge curriculum into a format that online learners can use and complete in their own time.



“We’re living in a world that’s extremely fast-moving. Let’s see what we can learn together”

“We developed the entire curriculum into an asynchronous format, with different modes of online delivery, including video, workbooks, summaries and assessments. Those media-rich components have to be curated so that they all work together to achieve the objectives.”

“We also developed a learner-management system that is specifically modified for students in an online environment – timetabling, monitoring performance, identifying where a student needs intervention, and providing communication mechanisms between teachers and learners.”

Data is generated to help identify knowledge gaps. “In mathematics, our technology is able to tease out if a student can’t factorise an equation because they don’t know what an equation is, and that they don’t know what an equation is because they don’t know what a variable is, and so on.”

The data can also help identify why a student might get a low mark in essay writing. “Students sometimes do poorly not because of their English but because they’re impulsive – they dive in and don’t plan. The data and methodology can determine that.”

Providing social and emotional support

An online environment backed up by data can benefit learners with anxiety, who might sit in a classroom worrying that a teacher is going to ask them a question: “If a teacher picks up from the data that a student needs help, they can talk to the student privately.”

Boston Online Home Education does include some live online teaching, but, Eli adds: “the content of this is such that learners don’t necessarily need it, but we believe it’s important from an interaction point of view.”

“Learners also have group sessions with a pastoral counsellor, who talks to each group

about any problems they’re having with their studies. This counsellor can give them study skills or life skills.”

Another platform focuses on social and emotional learning, which, Eli says, is “critical” to a successful online environment. The platform covers topics such as self-awareness, self-management, decision-making, relationship skills and social awareness. There’s also a debating platform, giving students a community to help them develop these skills.

Looking to the future

Boston Online Home Education is keen to work with other online and in-person Cambridge schools. “We’re living in a world that’s extremely complex and fast-moving,” says Eli. “I want to invite other Cambridge institutions around the world, physical and online, to talk to us. It could be about content for Cambridge International A Level Mathematics or about social and emotional learning, or it could be about English skills in countries where English is a second language. Let’s see what we can learn together.”

Cambridge International is committed to supporting online schools in line with our standards and providing them with everything they need to deliver excellent teaching and learning – whether they are fully online schools, or physical schools that want to offer all or part of the Cambridge Pathway online.

Find out more about how we work with online schools at www.cambridgeinternational.org/online-education

Behind the scenes



The digital-assessment DEVELOPER

Cambridge International’s Head of Research & Development for Digital Assessment & Evaluation, Sanjay Mistry – a former Deputy Head – is focused on ensuring digital assessments are evidence based and add value. Here he explains how trials with learners are helping Cambridge to design accessible assessments

“We’ve run about 20 digital-assessment trials with learners aged 3 to 19 in the past 7 years – 10 of those have been in the past 12 months. We’ve trialled in more than 60 countries – we’re dealing with a diverse range of contexts so we have to take that into consideration.”

“The length and size of a trial depends on whether you’re trialling individual questions or item types, a full assessment or capabilities of a platform.”

“A trial might last two to four months, but the whole assessment development process, from conception to product release, can be anything from two to four years. There are lots of different ways we collect data – it could be face to face or through feedback from teachers, video capture or engagement surveys.”

“You can find out something that you hadn’t imagined during trialling and if you see one student struggling with something you are testing, you know there will be others. Therefore you need to be flexible and prepared to change direction or run additional trials.”

“Digital assessment should only be used where it adds value to the student and to the assessment. Computing is a perfect example – it’s learned practically in the classroom, but we’ve always assessed it on paper.”

“In January this year, we ran trials of digital mock exams in Cambridge IGCSE Computer Science, English First Language and English Second Language, and in Cambridge International AS Level History.”

“Schools fed back that using the digital service was quick and easy. It saved them time as they didn’t have to prepare or scan and send off exam papers. Examiners also found the system intuitive.”

“We’re undertaking a feedback and research initiative to get qualitative and quantitative data – this will feed into the learnings and improvements for the mocks service, but also into future digital-assessment products.”

“We’re also developing a digital-assessment accessibility framework. We use a concept known as Universal Design

in our digital-assessment development – we try to make sure that we design assessments that can be taken by the greatest number of students possible, without the need for adaptation or specialised equipment.”



“Schools found the digital service quick and easy. It saved them time as they didn’t have to prepare or send off exam papers”

If your school would like to take part in future trials, please contact your Cambridge regional manager.

New Collins Cambridge IGCSE™ Co-ordinated and Combined Sciences

Cambridge IGCSE™ Co-ordinated Sciences (0654)

Second Edition

Develop students' practical science skills with investigative tasks and deepen understanding with Science in Context sections. With clear, accessible presentation, thoroughly prepare students to approach exams with confidence.



Cambridge IGCSE™ Combined Science (0653)

Second Edition

Carefully developed features including plentiful questions, worked examples, key terms and more allow students to build firm scientific knowledge, build practical skills and approach exams with confidence.



For more information, to request a sample or place an order, scan the QR code or contact collins.international@harpercollins.co.uk



Request a sample here

collins.co.uk/cambridge

The Student's Books are endorsed by Cambridge Assessment International Education to support the syllabuses for examination from 2025. The Teacher's Guides have not been through the Cambridge International endorsement process.

PROFESSIONAL development

CAMBRIDGE SCHOOLS CONFERENCES REACH NEW AUDIENCE ONLINE

As this issue of *Cambridge Outlook* went to press, Cambridge colleagues were getting ready to host the final Cambridge Schools Conference in the 2022/23 series, on the theme of 'Creating a positive environment for academic success'. Taking place in Orlando, Florida on 23–24 June, it promises to be one of our largest-ever in-person conferences.

We've really enjoyed holding in-person events again. Cambridge Schools Conferences offer a unique opportunity for school leaders and teachers from different schools and countries to come together and discuss education from a wider perspective.

However, we also continue to see the benefits of holding Cambridge Schools Conferences online. Just under 4000 Cambridge educators participated in our online conference in March 2023 – far more than we could welcome in person – and the flexible format means that teachers can take part while still fulfilling their teaching commitments.

We're now planning the 2023/24 series, which will once again include a mix of online and in-person conferences.

Learn more about Cambridge Schools Conferences at www.cambridgeinternational.org/csc



Cambridge Schools Conference, UK, September 2022

FLEXIBLE APPROACHES TO PROFESSIONAL DEVELOPMENT

We offer training courses for exams officers, teachers and school leaders at different stages of their career, and in a choice of formats – online, virtual or face to face. Search our professional development calendar to find courses that match your needs:

www.cambridgeinternational.org/training

Becoming an assessment JEDI

Sally Everett is Professor of Business Education and Vice Dean (Education) of King's Business School, King's College London (KCL). She is also KCL's Academic Lead for Inclusive Education, and in May 2023, she delivered the first Cambridge online workshop about justice, equity, diversity and inclusion (JEDI) in assessment practices.



"It's imperative that we ensure our assessment reflects our wider student population and allows all learners to succeed to the best of their ability.

"I encourage educators to start by reflecting on their own identity and educational background to self-evaluate their own biases and positioning. The world is ever-evolving so it's important to be open to thinking differently.

"As educators, we want to get the best out of our learners – it's about creating a pedagogy of kindness.

Find out more:
'Becoming an assessment JEDI: fostering Justice, Equity, Diversity and Inclusion in assessment practices'
www.cambridgeassessment.org.uk/JEDI

"The 'J' section of JEDI is primarily about social justice. One aspect of that is race and ethnicity: does our learning and teaching reflect the students in class or does it reflect something from a hundred years ago?"

"The 'E' relates to equity rather than equality, because I think we're moving beyond where every learner has the same education to us tailoring approaches according to where a learner is, where

they're coming from and their particular skill set.

"The 'D' is about diversity: how do we create a diversity of assessment methods that reflects the diversity of learners and builds a sense of fairness and equity?"

"The 'I' is for inclusion and that covers a number of different things, including access. We talk about reasonable adjustments, but if you use universal design principles to create a clearer assessment format or approach, all students can benefit.

"There is real concern about learners' mental health, so another theme is how we accommodate that through our assessment approaches. I'm able to look at this through a university lens and I'd like to see more partnership work between schools and universities – inclusive education needs to be part of students' learning style before they arrive at university."



Support for schools

THE LATEST RESOURCES AND DEVELOPMENTS TO SUPPORT YOU AND YOUR LEARNERS



Making our website more accessible

We're making improvements to our website to give everyone the same opportunity to access the content. These include adding captions to videos, making sure content is accessible by keyboard only, and carrying out accessibility checks on PDF documents. While these improvements will make a bigger difference for some, they'll be beneficial to all, helping everyone at your school get more from the site.

We're also publishing content in more languages. We offer versions of our website in Arabic, Bahasa Indonesia, Chinese, Italian, Japanese, Spanish, Thai and Vietnamese. Plus, you'll find translated resources for school open days at www.cambridgeinternational.org/toolkit



Cambridge Progression Tests get new performance bands

Cambridge Primary and Lower Secondary Progression Tests are school-based assessments that help teachers check learners' knowledge, skills and understanding

As part of our improvements to Cambridge Primary and Lower Secondary, we now produce new Progression Tests every year (instead of every three years).

This year, we've also introduced new performance bands for the tests. Instead of Gold, Silver and Bronze, learners will be graded Basic, Aspiring, Good, High or Outstanding.

This change brings the Cambridge Progression Tests in line with the new Cambridge Checkpoint grading scale that we're also introducing this year, helping teachers predict performance at Cambridge Checkpoint and direct their support where it's needed most.

You can find out more on the [Cambridge Primary and Lower Secondary support sites](http://www.cambridgeinternational.org/support).

Plan ahead for syllabus changes

You can find the latest information about our new, revised and withdrawn qualifications in the *Syllabus Changes 2023* guide on our website. You can also sign up to receive twice-yearly email updates of syllabus changes for your subject area – subscribe now to receive the September 2023 update. Go to www.cambridgeinternational.org/news/whats-new/syllabus-changes

We continually review and improve our syllabuses in consultation with schools. Revised syllabuses for first assessment in 2025 include our Cambridge Upper Secondary Mathematics suite and Cambridge International AS & A Level Design & Technology. For easy access to all the revised syllabuses in one place, go to www.cambridgeinternational.org/new

Do you want to integrate more tech into your teaching?

We are always developing new support resources, and with more than 30 000 items, there's plenty to choose from.

We have added a range of tools to the School Support Hub to help you integrate technology into your lessons and create engaging classroom activities. You'll find a growing collection of tools to use, including 'Spinner' where you can add names or activities to a spinning wheel to make random selections, or 'Drag and drop', which enables you to upload an image and add labels to it.

Visit the 'Teaching and learning' tab on any syllabus page in the School Support Hub to find them. Go to www.cambridgeinternational.org/support



Still time to enter our science competition

We've had a brilliant response to this year's Cambridge Upper Secondary Science Competition. The competition is open to teams of Cambridge IGCSE and O Level students and is a great way to build students' passion for science alongside their academic studies. The second entry period runs from July to October, so there's still time to register your school's interest and take part.

The global winners will be announced in December 2023. Don't miss your chance to be crowned 'best in the world'!

Find out more at www.cambridgeinternational.org/science-competition

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're highly appropriate for Cambridge programmes.



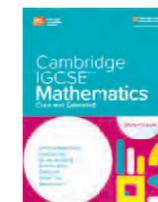
CAMBRIDGE IGCSE AND O LEVEL GLOBAL PERSPECTIVES (2ND EDITION)*

RESOURCE: Coursebook with digital access, Digital Coursebook, Digital Teacher's Resource

PUBLISHED BY: Cambridge University Press

Encourage students to value and understand other people's perspectives by exploring global topics, such as climate change and globalisation. The coursebook includes enquiry-led activities to support the development of 21st-century skills. Access additional teaching support to help you embed key teaching approaches with our digital teacher's resource.

Website: www.cambridge.org/education/igcsegp



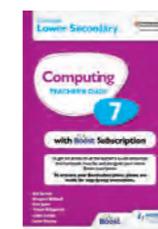
CAMBRIDGE IGCSE MATHEMATICS CORE AND EXTENDED SERIES

RESOURCE: Student's Book, Workbook, Teacher's Guide, Digital Resources

PUBLISHED BY: Marshall Cavendish Education (MCE)

This series adopts both the guided inquiry and direct instructional approach to support learners with their study of the Cambridge IGCSE and IGCSE (9–1) Mathematics syllabuses (0580/0980). It promotes logical thinking and deduction to enhance learners' analytical skills and deepen their conceptual understanding.

Website: www.mceducation.com/cambridge-international/cambridge-igcse-maths



CAMBRIDGE LOWER SECONDARY COMPUTING

RESOURCE: Teacher's Guide (print and digital)

PUBLISHED BY: Hodder Education

This guide includes lots of guidance on assessment, with suggested activities, quizzes and ideas for supporting and extending students working at different levels. Monitor progress with online Knowledge Tests and access reporting for the whole class. Also available for English, Maths and Science.

Website: www.hoddereducation.co.uk/cambridge-lowersec-computing



CAMBRIDGE IGCSE GLOBAL PERSPECTIVES

RESOURCE: Student's Book, Teacher's Guide and eBooks

PUBLISHED BY: Collins
Develop students' skills and help them prepare for assessment as they explore contemporary global issues, rich international texts, data and case studies. Offers full coverage of the Cambridge IGCSE and O Level Global Perspectives syllabuses (0457/2069). The Student's Book and Teacher's Guide are available in print and digital formats.

Website: www.collins.co.uk/cambridge

Email: collins.international@harpercollins.co.uk

*The publisher is working with Cambridge Assessment International Education towards endorsement of these titles



MAKING *progress*

Chris Chin Lee, Principal of Trimont College in Trinidad, explains why his school is using Cambridge Progression Tests



Trimont College has 105 learners aged 7 to 16. The school uses Cambridge Progression Tests for both Cambridge Primary and Cambridge Lower Secondary. These optional assessments are designed for use in the classroom, and provide data to help teachers assess learners' performance and progress. The tests are included in the programme fee.

"We use the tests for English, Mathematics and Science as our end-of-year exams," says Principal Chris Chin Lee. "They're assessments that tell the learner that they're doing well, or what they need to improve."

Teachers mark the tests and upload results to the Cambridge Primary or Lower Secondary support site. The portal generates reports, helping teachers to analyse learners' performance and compare results year on year, as well as in relation to other Cambridge schools.

"We've found the process very easy –

For more on the tests visit www.cambridgeinternational.org/progression-tests

uploading the data is straightforward and the reports show parents where we are on the Cambridge scale. We can therefore demonstrate that we are delivering on these three core subjects," he says.

Standardised assessment

An important advantage of the tests for Chris is that teachers don't have to prepare their own assessments or mark schemes.

"Parents know that the tests are something that Cambridge has produced, based on Cambridge curricula, with Cambridge mark schemes, so we can say objectively that this is where your learner is," he explains.

New bands

The Progression Test mark schemes have recently been updated, replacing the original Bronze, Silver and Gold performance bands with Basic, Aspiring, Good, High and Outstanding (see page 16). There is also an Unclassified category for those who do not achieve the Basic level. Chris says: "The new bands are more granular and they're based on percentiles, so they're better for helping learners understand where they are within a band."

Teaching and learning

One of the most useful advantages of the Progression Tests, according to Chris, is how they assist with planning next steps in teaching and learning. "The data helps our teachers at the next level know what to expect from the learners coming up," he says. "They can look at the results for each question to see a learner's strengths and weaknesses and adjust their teaching plans to help match what those learners need."

Keeping up to date

The tests have helped make sure teachers deliver the curriculum and keep on top of any changes. Chris says: "When our school was first approved in 2016, many of our teachers were used to the local education system.

"The tests have meant teachers have become used to going onto the support sites and looking at the reviewed or updated curricula to make sure they stay current. Once online, they can access additional resources and a global network of teachers who are all teaching this curriculum.

"Cambridge offers so much in the way of free resources and we want our teachers to use these. The Cambridge plans are there because they cover the curriculum, and this saves teachers' time. Of course, each group of learners is different, so teachers may have to adapt a plan to suit their class.

"We don't want teachers to teach towards a Progression Test, but it helps them deliver the curriculum well."



An example of a Cambridge Lower Secondary Progression Test report

A view from... INDIA

Dr Brian Jenkins is Founder and Principal of Sholai School, Centre for Learning, Organic Agriculture and Appropriate Technology in Kodaikanal, India. We learnt about his school's different approaches to education

When did you become a Cambridge school?

We've been a Cambridge school since 2005. We offer Cambridge IGCSE and Cambridge International A Level. We're a small school, with 30 per cent of students on scholarships.

Where is Sholai School situated?

It's located close to the Reserve Forest in Tamil Nadu, at an altitude of 1100 metres. Our natural surroundings include elephants, 133 bird species and many other species of wild animals. We encourage our students to understand and respect nature so that they can learn, value and listen to it.

What is the school's ethos?

Learning is more than accumulating knowledge. Sholai students learn to question the source of that knowledge and whether it's beneficial to the planet and/or humanity, as well as to be aware of superficial and self-centric knowledge and thinking. It's important to realise the crucial value of a mind that is free and inwardly quiet. A child's education requires at least three aspects: emotional, relevant intellectual and physical-health education.

What is emotional learning?

Emotional learning helps students understand their fears, emotions and social pressures. It's important for young people to learn this at school so they understand how to be compassionate, kind and serious in their relationships throughout life.

How do you teach the Cambridge curriculum at Sholai School?

Relevant intellectual education covers many subjects, including physics, maths, chemistry, biology, global perspectives, philosophical explorations and understanding knowledge. Many of these subjects require hands-on practical experiences. Students often learn so much better when they're doing or making things – in woodwork, in automobile engineering or while watching birds. We encourage attentive listening and dialogues.

Tell us more about how you teach physical-health education.

Our physical-health education guides children to care for their bodies. It includes hatha yoga, reflecting on their nutritional needs and learning to play games such as football and badminton sensitively and non-competitively.

How does Sholai School aim to help the environment?

Sholai School is an ultra-low-carbon, eco-friendly, sustainable community, set among many bio-diverse trees and wildlife. Most children nowadays are concerned about global warming and climate change. Our serious response in this educational community is to do the least harm to nature, to eat vegetarian food and learn to understand ourselves more deeply, realising that we're no better than others in this world. We're developing the organic farm and have 76 solar panels. We also have a micro hydroelectric generator.



Practical learning at Sholai School

What is happening at Sholai School now?

We have eight biogas plants – these containers provide gas for cooking and manure for the farm. However, we need a larger plant to produce biogas in. A neighbour has offered us her massive biogas drum, and the challenge now is to transport it two kilometres, weld, scrub and paint it.

Find out more at www.sholaiicloaat.org



CAMBRIDGE
UNIVERSITY PRESS

Help your learners become confident computational thinkers!

**Our Cambridge Primary and Lower Secondary
Computing series includes:**



Complete coverage of the five curriculum areas of Computational Thinking, Programming, Managing Data, Networks and Digital Communication and Computer Systems



Fun projects such as designing a robot and creating a computer game in Scratch, as well as offline activities such as going on a computer hunt



Technical computing terminology explained in everyday language, supported by familiar examples



Cross-curricular links, customisable worksheets, differentiation support, **and much more!**



Visit our
website
to find
out more




6616319081

FSC logo positional
for printer to add

© Cambridge University Press & Assessment 2023