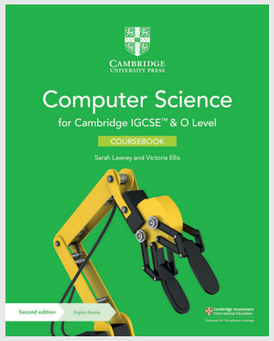
Content will be available in print and digital resources



The new series builds upon the fundamentals of computational thinking and programming, brought to life through real-life contexts and applications. With a variety of new learning features and a newly added programming book for Java, your students will have the tools they need to study computer science with confidence.

Coursebooks (Digital coursebook/ Coursebook with digital access)

- New case studies from Microsoft Research demonstrate how computer science can be applied in real-life scenarios, This is supported by the new `Computer science in context' feature, connecting students to real-life scenarios and technology.
- New `Introduction to studying Computer Science' chapter supports students with little prior learning, helping them get up to speed with the key concepts
- New 'Skills focus' sections develop students' mathematical and computational thinking, as well as programming knowledge, with step-by-step examples and questions
- New `Self-evaluation checklists' and peer assessment features encourage students to reflect on their own progress and learn from each other
- New `Introduction to programming scenarios' chapter prepares students for the new area of the syllabus
- A wealth of new exam-style questions in every chapter provide students with exam preparation activities throughout the course

Digital teacher's resource

- This comprehensive resource supports your teaching whether you are new or experienced at teaching computer science
- Includes over 200 teaching activity ideas, as well as teaching plans, language support, teaching programming guidance, differentiated worksheets, homework ideas and exam-style papers, supporting the coursebook and programming books to save you much needed time
- Answers for all resources are accessible to teachers for free on the Cambridge GO platform

Programming books with digital access

- In response to syllabus changes, we have developed specific support for students studying Java
- Our programming books for Python, Microsoft® Visual Basic and Java complement the coursebook and include `Demo', `Practice' and `Challenge' programming tasks, providing scaffolded support to meet all learners' needs

Brighter Thinking, Better Learning

Brighter Thinking drives our approach to science: a solid foundation of research from leading educational thinkers, expert authors and science teachers in Cambridge and around the world underpins the resources we publish to support students learning science. Through a flexible suite of resources, designed to meet a wide range of needs in the classroom, Better Learning is possible. Students can accelerate their learning and develop skills for life.

Contact your local Cambridge University Press representative:
cambridge.org/education/find-your-sales-consultant

cambridge.org/education

CAMBRIDGE UNIVERSITY PRESS

Cambridge IGCSE™ and O Level Computer Science (0478/0984/2210)

What you need to know

Building Brighter Futures **Together**

Brighter Thinking
Better Learning

We've created new resources ready for the updated Cambridge IGCSE™ and O Level Computer Science syllabuses for examination from 2023. This brochure explains how our resources will help you. Full syllabus details can be found on the Cambridge International website, **cambridgeinternational.org**

To inform the development of this new series, we talked to computing teachers and leading educational thinkers in Cambridge and around the world about how to make teaching and learning computer science better. This rich insight has enabled us to develop a series of resources with content and features to encourage students to accelerate their learning and develop skills for life.

	Key changes	What this means for you	How we support you
Assessment	The assessment model remains the same, however titles and weighting have altered for Papers 1 and 2.	Paper 1: Computer Systems (75 marks, 50%) Paper 2: Algorithms, programming and logic (75 marks, 50%)	We have increased our focus on programming to support the increased weighting on Paper 2. This includes adding programming tasks and a 'Skills focus' feature to the **coursebook**, which contains questions and worked examples to support the development of mathematical, programming and computational thinking skills. We have also added a bank of programming ideas to the **teacher's resource**, suggesting simple programmes to make in class. The **coursebook** features a set of exam-style questions at the end of each chapter for frequent practice. Two exam-style papers and mark schemes can be found in the **teacher's resource**, allowing exam-style practice in preparation for examination.
	The pre-release task that formed part of Paper 2 has now been removed and replaced with a programming scenario question at the close of this paper.	Students will need to develop on-the-spot analysis skills to create solutions to programming scenarios within their examination.	An 'Introduction to programming scenarios' chapter has been added to the **coursebook**, which takes students from problem analysis to programming solutions, through questions, activities and programming tasks. This is supplemented by a dedicated chapter in each of the three **programming books** and is supported by further scenario practice tasks and solutions in the **teacher's resource**.
	A list of command words will now be published in the syllabus, alongside their definitions. These will be consistent across all papers.	Students need to identify command words and understand what is being asked of them in order to effectively answer assessment questions.	A full list of command words and definitions can be found in the **coursebook** glossary. Command words are used regularly in questions throughout the **coursebook**. This familiarises students with the command words and what is required in response to these. Command words are also identified and defined alongside exam-style questions, giving students plenty of opportunity for practice ahead of their examinations.
Content	New topic 'Automated and emerging technologies' • Automated systems • Robotics • Artificial intelligence	Learners will need an awareness of automation and emerging technologies, as well as the real-world application of these.	Both teachers and students are supported with sturdy foundations as this topic is new for all. The **teacher's resource** hosts a 'Background knowledge' feature to build confidence in teaching these new topics, which is supported by a bank of teaching activities to implement in class. Our 'Getting Started' activities in the **coursebook** allow you to gauge what your learners already know, and these are supported by next steps and actions within the **teacher's resource**. Support for new topics and skills continues with our three-tiered approach to programming tasks. We have teamed up with Microsoft Research to bring real-life case studies to your classroom in our new **coursebook**, to engage learners in the future of computer science and provide unique insight into emerging technologies. Microsoft
	The advised programming languages to use with this syllabus have changed to reflect trends within the computer science industry. The three advised languages are now Visual Basic, Python and Java (previously Pascal/Delphi).	Learners have the option to demonstrate their knowledge through Visual Basic, Python or Java. This change has been made to reflect the growth of Java, due to its use in app development.	We now have three **programming books** to support the development of programming and computational thinking skills. We have refreshed our Visual Basic and Python workbooks for the updated syllabus and have introduced a new Java workbook to reflect this change.
	Mathematical requirements have been added to the syllabus for the first time.	Learners will need an understanding of mathematics and its role within the context of computer science.	Students can develop their mathematical and computational thinking skills, as well as their programming skills, through the new 'Skills focus' feature within the **coursebook**. This includes questions and worked examples to allow students plenty of practice ahead of their examinations.
	Learning objectives have been reworded and reorganised for clarification. Full wording and assessment objective details can be found in the relevant syllabus on the Cambridge International website **cambridgeinternational.org**	Updates reflect advances in technology and ensure consistency across IGCSE, O Level and AS & A Level Computer Science.	Our resources have been updated and reorganised to reflect these changes in content, guiding you and your students through the updated syllabus. This includes new questions and activities throughout the **coursebook**, as well as teaching activity ideas, lesson plans and worksheets in the **teacher's resource**.