

# COMPUTING QUALIFICATIONS

## *Summary brochure*

We open doors to the world of computing. We've got you covered with a complete choice of qualifications at all levels.



# WHAT'S IN THIS GUIDE?

- 3 | **Pathways for computing**
- 4 | **Entry Level Computer Science**
- 5 | **GCSE (9–1) Computer Science**
- 6 | **Cambridge Nationals in Creative iMedia and IT**
- 8 | **AS and A Level Computer Science**
- 9 | **Cambridge Technicals in IT**
- 13 | **Supporting you in qualification delivery**

## *A full suite of qualifications for 14 to 19 year olds*

**Our qualifications give your students sought-after digital knowledge and skills for the workplace and for everyday life.**

Only OCR offers general and vocational qualifications from Entry Level to A Level. These modern qualifications have the highest standards built in throughout – and a desire to foster creativity and innovation at their heart.

Our subject advisors work with higher education, further education, universities and employers to develop and hone practical and engaging computing qualifications.

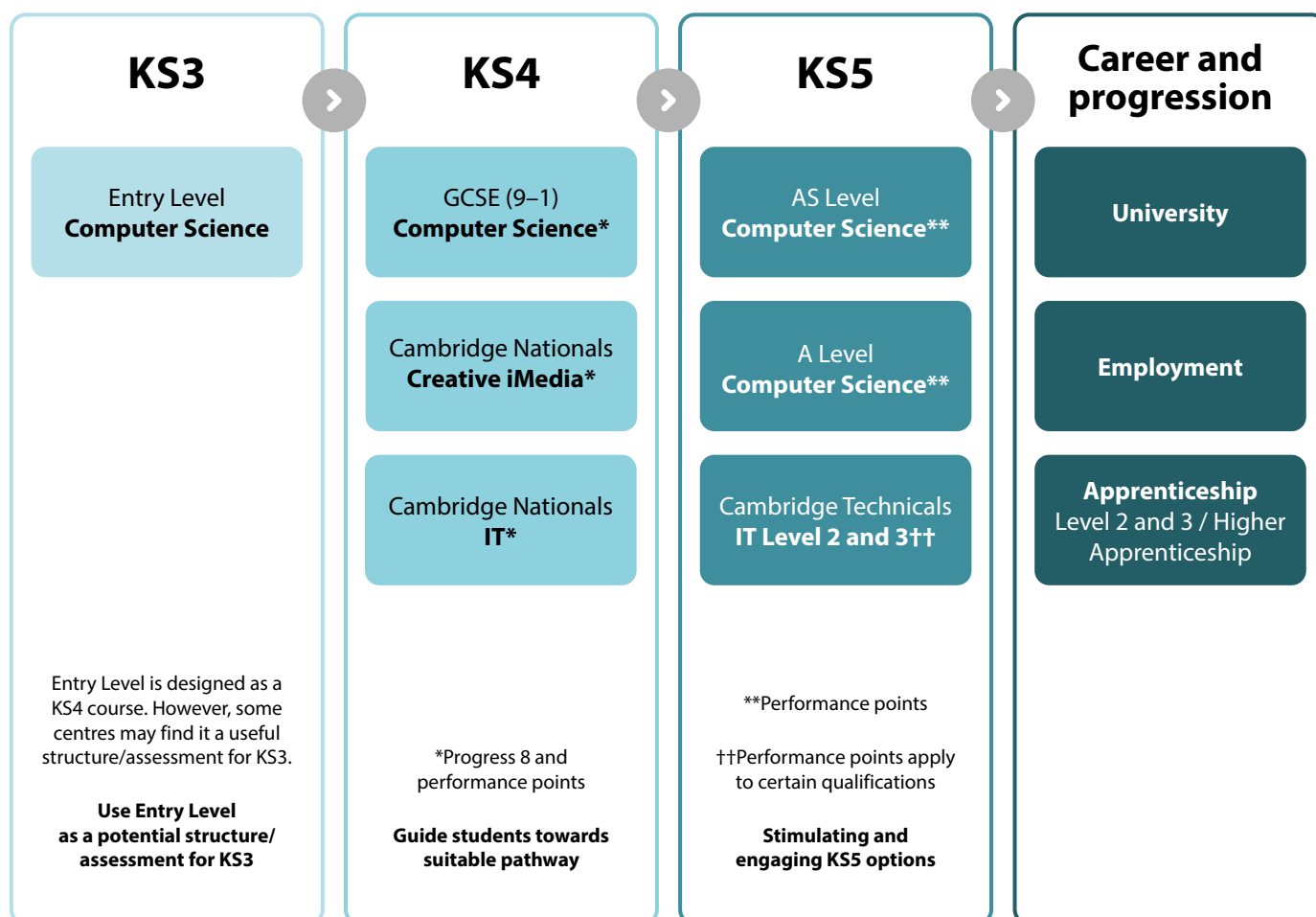
Our qualifications open doors to diverse career paths, including roles in game design, web and animation development or network security, digital forensics and mobile app development.

They're backed up by the kind of practical, easy-to-use support we know teachers want. In fact, whether computing is your specialist subject or not, we have plenty for you.

Our unmatched computing suite prepares your students for the digital workforce of tomorrow. All of our qualifications are flexible, well resourced and offer ongoing free support for you.

---

# PATHWAYS FOR COMPUTING



## KS4 qualifications

We offer a range of qualifications at KS4, each with a different focus. This allows you the ultimate flexibility to shape your computing curriculum for a wide range of students’ needs.

GCSE (9–1) Computer Science	Computer systems, computational thinking, algorithms and programming
Cambridge National in IT	IT in the digital world, data manipulation using spreadsheet and using Augmented Reality to present information
Cambridge National in Creative iMedia	Creative iMedia in the media industry, visual identity and digital graphics, characters and comics, animation with audio, interactive digital media, visual imaging, and digital games

# ENTRY LEVEL COMPUTER SCIENCE

## KEY INFORMATION

### **SPECIFICATION CODE:**

R354

### **IDEAL FOR:**

Level 1 students; students who are new to computing topics (e.g. KS3 students), experiencing computer science at a fundamental level; students who may struggle with a Level 2 award at GCSE (KS4)

### **PROGRESS TO:**

GCSE (9–1) Computer Science, Level 2 Cambridge National in Creative iMedia, Level 2 Cambridge National in IT

### **PERFORMANCE POINTS:**

No

## **THE QUALIFICATION**

Entry Level Computer Science provides students with a fundamental understanding of computer technology and computing principles and takes a look at what goes on 'behind the scenes'.

It introduces and assesses relevant, transferable skills including problem solving. The content has been designed to create a solid basis of understanding, engage your learners and get them thinking about real-world application of computer science.

## **ASSESSMENT**

Entry Level is assessed through two sets of internal assessment (each worth 40%) and a programming project (worth 20%). You deliver and assess the topics in class, with students able to re-sit tests they may not have been successful with.

## **READ MORE:**

[ocr.org.uk/qualifications/entry-level-computer-science-r354-from-2016](https://ocr.org.uk/qualifications/entry-level-computer-science-r354-from-2016)



# GCSE (9–1) COMPUTER SCIENCE

## KEY INFORMATION

### **SPECIFICATION CODE:**

J277

### **IDEAL FOR:**

Level 2 students, students who are new to computing topics; students who want to experience computer science at an 'intermediate' level; students who are thinking of a computing career

### **PROGRESS TO:**

A or AS Level Computer Science; Cambridge Technicals in Digital Media; Cambridge Technicals in IT or Level 2/ Level 3 apprenticeship

### **FINAL AWARD:**

9 (highest) to 1 (lowest)

### **PERFORMANCE POINTS:**

Yes, and eBacc subject

## THE QUALIFICATION

Our GCSE (9–1) Computer Science builds on our pioneering qualification development in this field. Relevant to the modern, changing world of computing, it's designed to boost essential computing skills for the 21st century. We've talked to companies, organisations, academics and teachers to shape and develop this contemporary qualification.

**You also have the reassurance that OCR is the market leader in computer science provision across the UK.**

### **Our specification focuses on:**

- Computational thinking as its core, helping students to develop the skills to solve problems, design systems and understand human and machine intelligence
- Applying the academic principles they learn in the classroom to real-world systems in an exciting and engaging way
- Giving students a clear progression into higher education, as the course was designed after consultation with members of BCS, CAS and top universities.

## ASSESSMENT

GCSE (9–1) Computer Science is assessed through two written examinations. Each exam is worth 50%. Practical programming is a core skill which continues to be a focal point of our updated GCSE.

Candidates are required to develop programming skills as part of the GCSE. These skills reinforce and support access to the content in the GCSE written examinations.

Learning can be delivered through a creative blend of practical and theoretical lessons. Students are given the opportunity to design, write, test and refine programs using a text-based high-level programming language. This will help them to develop vital understanding across a range of relevant computer science topics.

Our flexible specification allows you to deliver a creative and innovative programming curriculum. You have control and can tailor your delivery to suit your students' needs.

The written examinations are undertaken in the final year of the course. GCSE (9–1) Computer Science offers resit opportunities.

### **READ MORE:**

**[ocr.org.uk/qualifications/gcse/computer-science-j277-from-2020](https://ocr.org.uk/qualifications/gcse/computer-science-j277-from-2020)**



# CAMBRIDGE NATIONALS



## ABOUT CAMBRIDGE NATIONALS

Our Cambridge Nationals suite is specifically designed for students aged 14 to 16 years. They provide an excellent start for vocational study, contribute to a broad curriculum offer and enable progression to Level 3 vocational qualifications, such as our Cambridge Technicals, T-Level or A Level.

## READ MORE:

[ocr.org.uk/cambridgenationals](https://ocr.org.uk/cambridgenationals)

## CAMBRIDGE NATIONAL IN CREATIVE I MEDIA

### KEY INFORMATION

#### SPECIFICATION CODE:

Level 1/Level 2 Cambridge National in Creative iMedia  
(120 GLH) – J834

#### IDEAL FOR:

Students aged 14 to 16 years

#### PROGRESS TO:

A Levels, T-Levels, apprenticeships or further advanced vocational qualifications at Level 3, such as our Cambridge Technicals

#### PERFORMANCE POINTS:

Included on the KS4 performance tables for England

### THE QUALIFICATION

Our Cambridge National in Creative iMedia develops student's understanding of media codes and convention for producing digital media products. It raises students' confidence in creating characters and comics, digital games, visual imaging, digital graphics, interactive digital media, and animation with audio products. Each unit of the qualification has interactive digital media at its heart.

Creative iMedia provides your students with knowledge and understanding in a number of key areas. Students design, plan, create and review interactive digital media products appropriately to meet client and target audience requirements.

The qualification structure and range of units available allows students freedom to explore the areas of creative media that interest them. The qualification enhances their learning, practical skills and builds their knowledge.

### ASSESSMENT

Our Level 1/Level 2 Cambridge National in Creative iMedia includes both internal and external assessment. Students must achieve three units: one externally assessed mandatory unit and two non-exam assessment (NEA) units which include the second mandatory unit and one optional unit taken from five available units.

The Creative iMedia in the media industry unit (R093) is assessed through a written exam and is worth 40% of the qualification. The visual identity and digital graphics unit (R094) is the mandatory NEA unit, worth 25% of the qualification. The third optional unit, worth 35% of the qualification, can be chosen from the five other units available.

## READ MORE:

[ocr.org.uk/qualifications/cambridge-nationals/creative-imedia-level-1-2-j834](https://ocr.org.uk/qualifications/cambridge-nationals/creative-imedia-level-1-2-j834)



# CAMBRIDGE NATIONAL IN IT



## KEY INFORMATION

### **SPECIFICATION CODE:**

Level 1/Level 2 Cambridge National in IT (120 GLH) – J836

### **IDEAL FOR:**

Students aged 14 to 16 years

### **PROGRESS TO:**

A-Levels, T-Levels, apprenticeships or further advanced vocational qualifications at Level 3, such as our Cambridge Technicals

### **PERFORMANCE POINTS:**

Included on the KS4 performance tables for England

## THE QUALIFICATION

Our Cambridge National in IT raises students' confidence and understanding in the use of IT in the digital world. Our IT qualification covers digital and technical skills not covered in our other computing qualifications.

Students will be equipped with the confidence to apply and use skills that are relevant both to the IT sector and more widely.

Students will learn about:

- the use of IT in the digital world
- the Internet of Everything (IoE)
- data manipulation using spreadsheets
- the design and implementation of human-computer interface (HCI)
- Augmented Reality

Students will develop knowledge and understanding in a number of key areas as they plan, design, create, test and evaluate/review IT solutions using spreadsheets and Augmented Reality (AR) products to meet client and target audience requirements.

## ASSESSMENT

Our Level 1/Level 2 Cambridge National in IT consists of three units. IT in the digital world (R050) is externally assessed and worth 40% of the total qualification. Data manipulation using spreadsheets (R060) and using Augmented Reality to present information (R070) are both NEA units worth 30% of the qualification each.

## READ MORE:

[ocr.org.uk/qualifications/cambridge-nationals/it-level-1-2-j836](https://ocr.org.uk/qualifications/cambridge-nationals/it-level-1-2-j836)



# AS LEVEL COMPUTER SCIENCE

## KEY INFORMATION

### SPECIFICATION CODE:

H046

### IDEAL FOR:

Students who

- May want to complete the A Level, but have no experience of computer science so far
- Are thinking of a career in Computer Science, but don't want to focus on coding as a discipline

### PROGRESS TO:

A Level, Level 3 Cambridge Technical in IT or Digital Media, university, employment, Level 4 higher apprenticeships

### PERFORMANCE POINTS:

Yes

## THE QUALIFICATION

Our AS Level Computer Science qualification splits learning into two sections: Computer Fundamentals, and Programming Techniques and Logical Methods. The qualification is unique as it is the only one in our Computer Science suite that does not test a student's ability to program.

Within the course students study a range of theory topics. This includes the principles and understanding linked to programming, and topics such as hardware and software, networks, systems development life cycles and implications of computer use.

## ASSESSMENT

AS Level Computer Science is assessed through two examinations, each worth 50%. There are re-sit opportunities for this subject.

## READ MORE:

[ocr.org.uk/qualifications/as-a-level-gce-computer-science-h046-h446-from-2015](https://ocr.org.uk/qualifications/as-a-level-gce-computer-science-h046-h446-from-2015)

# A LEVEL COMPUTER SCIENCE

## KEY INFORMATION

### SPECIFICATION CODE:

H446

### IDEAL FOR:

Students who

- Are looking to develop an advanced understanding of computer science
- Want to apply their coding ability to solve real-world problems
- Are looking at a computing orientated degree
- Are aiming to work in the computing industry

### PROGRESS TO:

A Level, Level 3 Cambridge Technical in IT or Digital Media, university, employment, Level 4 higher apprenticeships

### PERFORMANCE POINTS:

Yes

## THE QUALIFICATION

Our A Level Computer Science qualification splits learning into three sections: Computer Fundamentals, Programming Techniques and Logical Methods, and a Programming Project. As natural progression from GCSE (9–1) Computer Science it provides the perfect springboard for students looking at specialising in a computing-based career.

Within the course, students study a range of theory topics. These include the principles and understanding linked to programming, hardware and software, networks, systems development life cycles and implications of computer use.

It enables teachers to tailor the qualification to match the requirements of students and has an open source ethos allowing you to use any programming language that meets the needs of the course.

**You also have the reassurance that OCR is the market leader in computer science provision across the UK.**

## Our A Level will develop a student's ability to:

- Think creatively, innovatively, analytically, logically and critically
- Apply skills in and an understanding of computing (including programming) in a range of contexts to solve problems
- Delve into producing graphical user interfaces and object-orientated programming solutions.

By completing a programming project, students will have the opportunity to create a substantial piece of software using modern design methods which they can use to display their skills and talents.

## ASSESSMENT

A Level Computer Science is assessed through two written exams (each worth 40%) and a Programming Project (worth 20%). There is one re-sit opportunity for this subject.

## READ MORE:

[ocr.org.uk/qualifications/as-a-level-gce-computer-science-h046-h446-from-2015](https://ocr.org.uk/qualifications/as-a-level-gce-computer-science-h046-h446-from-2015)



# CAMBRIDGE TECHNICALS IN IT

CAMBRIDGE  
TECHNICALS

## ABOUT CAMBRIDGE TECHNICALS

Cambridge Technicals are vocational qualifications at Level 2 and Level 3 for students **aged 16+**. They're designed with the workplace and progression to higher education in mind. Cambridge Technicals provide a high-quality **alternative** to A Levels at level 3. Qualifications at levels 2 and 3 have a mixture of internal and external assessments and centres are allocated a visiting moderator.

You can continue to teach our current qualification until 2025. We've created a [timeline](#) which explains the redevelopment process and shows the next steps and the estimated key dates.

There are some funding implications from July 2024. Details on these are available from our [post-16 reform hub](#). Please note the final funded entry dates are given below.

## KEY INFORMATION

### **SPECIFICATION CODES:**

IT Level 3 (2016) Certificate (05838)/Extended Certificate (05839)/Introductory Diploma (05840)/Foundation Diploma (05840) – No funding from July 2025

IT Level 3 (2016) Diploma (05842)/Extended Diploma (05877) – No funding from July 2024

IT Level 3 (2012) Certificate/Introductory Diploma/ Subsidiary Diploma/Diploma/Extended Diploma – 05347, 05349, 05352, 05355, 05358

### **PERFORMANCE POINTS:**

All IT Level 3 (2016) qualifications are eligible for Key Stage 5 performance points

### **IDEAL FOR:**

Students aged 16+

### **PROGRESS TO:**

Higher education, apprenticeships, employment

### **UCAS POINTS:**

Level 3 qualifications receive UCAS tariff points

## LEVEL 3

Our Level 3 Cambridge Technicals in IT qualifications help your students to achieve their potential and progress to the next stage of their lives, whether that's higher education, an apprenticeship or employment.

We have designed refreshing and exciting content that's modern, engaging, fit for purpose and suitable for the needs of your students. To do this, we've consulted with universities, employers and industry specialists to make sure your students will gain the right combination of knowledge, understanding and skills required for the 21st century.

We offer an extensive range of centre-assessed units with both practical and wider project-based assessment opportunities. There are also examined units in the Fundamentals of IT, Global Information, Cyber Security, and Cloud Technology. Depending on the size chosen, these qualifications can either complement a Key Stage 5 program of study alongside other vocational qualifications or A Levels, or may make up the bulk of a two-year study programme. Our diplomas have vocational pathways within them that students can follow (one pathway must be achieved).

### **READ MORE:**

[ocr.org.uk/cambridgetechnicals](https://ocr.org.uk/cambridgetechnicals)

# CAMBRIDGE TECHNICALS IN IT

CAMBRIDGE  
TECHNICALS

## KEY INFORMATION

### **SPECIFICATION CODES:**

IT Level 2 (2016) Award\*/Certificate/Diploma – 05882, 05883, 05884

IT Level 2 (2012) Certificate/Extended Certificate/Diploma – 05340, 05342, 05345

### **PERFORMANCE POINTS:**

IT Level 2 (2016) Certificate/Diploma – 05883, 05884 are eligible for Key Stage 5 performance points

\*IT Level 2 (2016) Award – 05882 is not eligible for Key Stage 5 performance points

### **IDEAL FOR:**

Students aged 16+

### **PROGRESS TO:**

Level 3, apprenticeships, employment

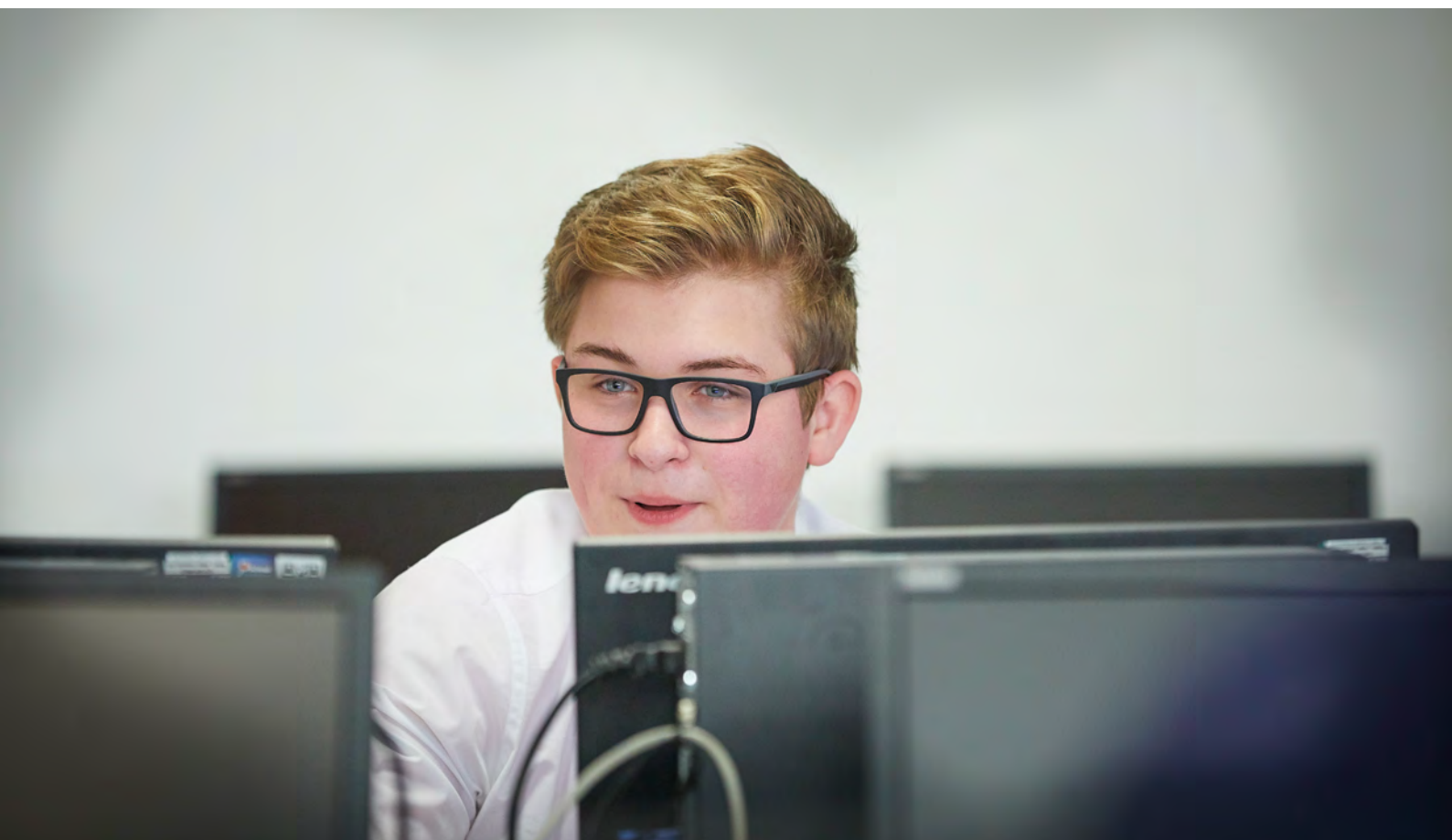
## LEVEL 2

Our Level 2 Cambridge Technicals in IT qualifications aim to develop your students' understanding and skills of the essentials of IT and cyber security. Your students will gain an insight into the IT sector as they, where applicable, investigate the pace of technological change, IT infrastructure on a global scale, and the importance of legal and security considerations. Designed in collaboration with industry experts, the qualifications focus on the requirements that today's employers demand.

Our broad range of centre-assessed units with both practical and wider project-based assessment opportunities, as well as examined units on the Essentials of IT and Essentials of Cyber Security, help provide a relevant and focused qualification which can be tailored to your students. There are also job role-specific pathways for your students to choose from.

### **READ MORE:**

[ocr.org.uk/cambridgetechnicals](https://ocr.org.uk/cambridgetechnicals)



# PATHWAYS AND OPTIONS FOR LEVEL 2 (2016) CAMBRIDGE TECHNICALS IN IT

M = Mandatory O = Optional				Cambridge Technical Award in Digital Business Technologies 90 GLH	Cambridge Technical Certificate in IT 180 GLH	Cambridge Technical Diploma in IT 360 GLH		
Number of units needed				Up to 3	4	8		
				PATHWAYS				
Unit number	Unit title	GLH	Assessment method	Digital Business Technologies Pathway	Digital Administrator	IT Technical Practitioner	Digital Software Practitioner	Digital Business Practitioner
1	Essentials of IT	60	E		M	M	M	M
2	Essentials of Cyber Security	30	E		M	M	M	M
3	Building IT Systems	60	I	-	-	M	-	-
4	Creating Programming Solutions for Business	60	I	-	-	-	M	-
5	Creating Business Solutions	60	I	-	-	-	-	M
6	Participating in a Project	30	I	-	-	O	O	O
7	Pitching the Product	30	I	-	-	-	O	O
8	Using Emerging Technologies	30	I	O	O	O	O	O
9	Supporting IT Functions	60	I	O	-	M	-	-
10	IT Software Installation and Upgrade	30	I	O	-	O	-	-
11	IT Hardware Installation and Upgrade	30	I	O	-	O	-	-
12	Creating a Computer Network	60	I	O	-	M	-	-
13	Creating Websites	60	I	O	-	-	M	-
14	Creating Mobile Applications for Business	30	I	O	-	-	M	-
15	Games Creation	60	I	O	-	-	M	-
16	Using Social Media Channels for Business	30	I	O	O	-	-	M
17	Using Data Analysis Software	60	I	O	M	-	-	M
18	Creating Visual Business Products	60	I	O	-	-	-	M

w



# SUPPORTING YOU IN QUALIFICATION DELIVERY

Our aim is to support you on your journey with us from initial enquiry right through to results. To help you get going, support you through delivery and allow you to develop professionally, we provide a massive range of support to help secure your students' futures.



## SUPPORT AND RESOURCES

### EXPERT SUBJECT ADVICE

Our subject advisors provide information and support to schools, including specification and non-exam assessment advice, updates on resource developments and a range of training opportunities. You can reach them through our customer support centre on **01223 553998** or by email at **computerscience@ocr.org.uk** or **vocational.qualifications@ocr.org.uk**

Join us on Twitter @OCR\_ICT

### TEACHING AND LEARNING RESOURCES

We offer a diverse range of support across our qualifications to support delivery. These include:

- **Teach Cambridge**  
Teach Cambridge is our new personalised and secure website that provides teachers with a single point of access to all the support and resources you need to teach our qualifications.
- **Lesson elements**  
Task sheets and accompanying instructions for some of the activities in the delivery guide.
- **Skills guides**  
A range of generic skills guides providing knowledge and tips covering topics such as communication, research skills and exam techniques.
- **Topic exploration packs**
- **Teacher and delivery guides**  
A range of lesson ideas with associated activities that you can use with students to deliver the contents of the qualifications.
- **Teacher delivery packs**  
All in one downloadable lessons to help reduce lesson preparation time and bring a range of engaging resources and assessment ideas for your teaching.
- **Transition guides**
- **Scheme of work**

### SAMPLE LEARNER WORK

We've created sample learner work across the majority of our qualifications that will support you in understanding the expectations of the mark schemes.

### PARTNER RESOURCES AND TEXTBOOKS

Our computing qualifications are supported by endorsed textbooks and resources published by leading publishers. You can find more details about our publisher partners and the resources they're providing at **ocr.org.uk/publishing-partners**

### BLOGS

Read our computing blogs and gain interesting insights from our subject advisors and other leading figures from the world of computing and ICT via **ocr.org.uk/blog**

### KEEP UP TO DATE

Sign up today at **ocr.org.uk/signup** for OCR updates including subject news, upcoming events and useful resources.



## ASSESSMENT

### ACTIVE RESULTS

This is a **free** online A Level, GCSE and Cambridge Nationals results analysis service to help you review the performance of individual students or your whole school. Active Results provides access to detailed results data, enabling more comprehensive analysis of results to give you a more accurate measure of the achievements of your centre and students. Find out more at [ocr.org.uk/activeresults](https://ocr.org.uk/activeresults)

### ASSESSMENT MATERIALS

Sample question papers and sample candidate work.

### EXAMBUILDER

A **free** online mock assessment service for Cambridge Nationals and GCSE and A Level Computer Science. It draws on historical past papers to simulate a real examination and gives students the opportunity to practise and build up confidence.

[ocr.org.uk/exambuilder](https://ocr.org.uk/exambuilder)

### PRACTICE PAPERS

We put all our practice papers through exactly the same long and detailed processes as the live papers to ensure that they match the style and rigour of live assessments.

### CANDIDATE EXEMPLARS

A selection of candidate answers and work with associated examiner commentary.

### PAST PAPERS

Previous examination papers for each subject with which you and your students can practise.

### PROGRESS TRACKER

An Excel-based tracking tool to help you monitor students' progress throughout the qualification.

## TRAINING AND PROFESSIONAL DEVELOPMENT

### PROFESSIONAL DEVELOPMENT TRAINING AND EVENTS

All our qualifications are supported with comprehensive training. Check out [ocr.org.uk/professionaldevelopment](https://ocr.org.uk/professionaldevelopment) to find out what's available for face-to-face or online training courses.

### TEACHER NETWORKS

These free informal twilight meetings are designed to encourage and develop local networking and support for computing in your area. They're an opportunity to speak with like-minded colleagues and one of our subject advisors.

Visit [teach.ocr.org.uk/teacher-network-events](https://teach.ocr.org.uk/teacher-network-events) to find a meeting near you.



# JOIN OUR *TEACHER* *PANEL*

SHARE  
VALUABLE  
FEEDBACK ON  
EVERYTHING  
FROM  
CREATIVE  
CONCEPTS  
TO TEACHING  
AND SUPPORT  
RESOURCES.

[ocr.org.uk/join](https://ocr.org.uk/join)

# NEXT STEPS

## STEP 1

**ALREADY AN OCR CENTRE?**

GREAT, YOU'RE ALL SET.

**IF NOT, CALL OUR  
CUSTOMER DEVELOPMENT  
TEAM ON 02476 856072**

## STEP 2

**ASK YOUR EXAMS  
OFFICER FOR ACCESS TO  
TEACH CAMBRIDGE**

**[teachcambridge.org](https://teachcambridge.org)**

## STEP 3

**DOWNLOAD  
THE SPECIFICATION  
AND CHECK OUT OUR  
RANGE OF RESOURCES**

## STEP 4







**KEEP UP-TO-DATE  
BY SIGNING UP FOR  
EMAIL UPDATES**

## STEP 5

**BOOK ONTO PROFESSIONAL  
DEVELOPMENT EVENTS  
AND TEACHER NETWORKS**

**[ocr.org.uk](https://ocr.org.uk)**

For more information visit

-  [ocr.org.uk/computing](https://ocr.org.uk/computing)
-  [facebook.com/ocrexams](https://facebook.com/ocrexams)
-  [twitter.com/ocr\\_ict](https://twitter.com/ocr_ict)
-  [instagram.com/ocrexaminations](https://instagram.com/ocrexaminations)
-  [linkedin.com/company/ocr](https://linkedin.com/company/ocr)
-  [youtube.com/ocrexams](https://youtube.com/ocrexams)

Call our customer support centre on  
**01223 553998**

Alternatively, you can email us on  
**[computerscience@ocr.org.uk](mailto:computerscience@ocr.org.uk)**

Visit our online support centre at  
**[support.ocr.org.uk](https://support.ocr.org.uk)**



OCR is part of Cambridge University Press & Assessment, a department of the University of Cambridge.

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored. ©OCR 2021 Oxford Cambridge and RSA Examinations is a Company Limited by Guarantee. Registered in England. Registered office The Triangle Building, Shaftesbury Road, Cambridge, CB2 8EA. Registered company number 3484466. OCR is an exempt charity.

OCR operates academic and vocational qualifications regulated by Ofqual, Qualifications Wales and CCEA as listed in their qualifications registers including A Levels, GCSEs, Cambridge Technicals and Cambridge Nationals.

Cambridge University Press & Assessment is committed to making our documents accessible in accordance with the WCAG 2.1 Standard. We're always looking to improve the accessibility of our documents. If you find any problems or you think we're not meeting accessibility requirements, please [contact us](#).