GCSE (9–1)

Computer Science

J277 GCSE (9–1) Computer Science
Moving from EdExcel

Moving from EdExcel

Are you currently teaching EdExcel Computer Science GCSE (1CP2)? This short guide will take a look at our GCSE in Computer Science, show you how it compares to the current EdExcel qualification and how you can easily move to teaching our specification.

We have a general Getting Started guide on our subject web page which compliments this guide. The Getting Started guide directs you to core support, resources and how to stay up to date.

1 Specification overview

	AQA	OCR
Assessment model	1 written paper and 1 onscreen assessment Paper 1: 1hr 30 Onscreen assessment: 2hrs	2 written papers Paper 1: 1hr 30 Paper 2: 1hr 30 80 marks each
AO weightings	AO1: 30% AO2: 40% AO3: 30%	AO1: 30% AO2: 40% AO3: 30%
Paper structure	Paper 1: Principles of Computer Science. This paper consists of five compulsory questions, each one focused on one of the topic areas. The questions consist of multiple-choice, short-, medium- and extended-open-response, tabular and diagrammatic items. Paper 2: Application of Computational Thinking. Students will complete this assessment onscreen using their Integrated Development Environment (IDE) of choice.	Paper 1: Computer systems. This paper consists of multiple choice questions, short response questions and extended response questions. Paper 2: Computational thinking, algorithms and programming. In Section B, questions are answered using either the OCR Exam Reference Language or any high-level programming language

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	AQA	OCR
Programming requirements	Practical Programming requirement to engage students with practical experience of programming. These skills are tested in within the onscreen assessment.	We have a Practical Programming requirement to engage students with practical experience of programming. These skills are then tested within the paper 2 examination.

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Please note: the content summaries below are a high-level overview only – they are not meant to be a complete list of all content differences.

Computer systems theory content (OCR Component 01)

Topic	You will not need to teach…	Our J277 specification contains…
CPU	× Control bus	✓ Cache ✓ Accumulator ✓ Virtual memory
Numbers	× Signed integers × 2's compliment	
Storage		✓ Advantages and disadvantages of storage devices
Data Representation		✓ Unicode
Networks	× Bus topology × Protecting software through audit trails etc. × 4 layer TCP/IP model (name and describe each layer)	✓ Hardware to connect to networks ✓ Client/Server and Peer-Peer networks ✓ The concept of layers ✓ Domain Name Server
Ethical, legal environmental		✓ Cultural impacts

Application of Computation Thinking content (OCR Component 02)

Topic	You will not need to teach…	Our J277 specification contains…
Algorithms		✓ Structure diagrams ✓ Insertion sort
Programming	× Run time errors	✓ Casting ✓ Random numbers
Boolean logic		✓ Logic gates
Programming Languages	× Assemblers	✓ Integrated Development Environments
SQL		✓ Basic SQL commands and understanding

2 Exam reference language

We use a set of commands to frame our examination questions. This means our questions are posed clearly and consistently. These commands are known as **Exam Reference Language**.

We also use it within our resources.

Candidates should be able to **recognise** and understand this. They do **not** need to **memorise** it.

OCR's Exam Reference Language (ERL) mimics real life programming languages and syntax. This means it should be easily recognisable no matter what language you teach in class.

Example

```
if answer == "Yes" then
    print("Correct")
elseif answer == "No" then
    print("Wrong")
else
    print("Error")
endif

switch day :
    case "Sat":
        print("Saturday")
    case "Sun":
        print("Sunday")
    default:
        print("Weekday")
endswitch
```

We have a specific document to help and support you and which gives further guidance.

3 Programming language choice

We continue to be the only exam board to offer **free choice in the language that you use** within the classroom.

Any language you choose should ideally cover all programming techniques within the specification.

However, there is nothing to stop you using more than one language to demonstrate different ideas.

We also offer a range of ideas for projects and challenges for you to use in the classroom on the 'Planning and teaching' page for the J277 qualification.

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Though we make every effort to check our resources, there may be contradictions between published support and the specification, so it is important that you always use information in the latest specification. We indicate any specification changes within the document itself, change the version number and provide a summary of the changes. If you do notice a discrepancy between the specification and a resource, please contact us.

OCR acknowledges the use of the following content: N/A

Whether you already offer OCR qualifications, are new to OCR or are thinking about switching, you can request more information using our Expression of Interest form.

Please get in touch if you want to discuss the accessibility of resources we offer to support you in delivering our qualifications.