Switching to OCR from AQA

Introduction

We have designed a highly engaging delivery of Computer Science within our qualifications which encourage a practical and exciting delivery of core topics within Computer Science. Whether taking the AS Level or A Level, these fantastic courses are great qualifications for those with an interest in the subject. With low administration requirements, extensive teacher support documents and a vibrant specification, we are sure that your learners will find these qualifications a key foundation to progression into university, the workplace and generally throughout their life. Whilst AS and A Level are a natural progression from OCR GCSE 9-1 Computer Science, there are no pre-requisites for our courses.

Key differences

OCR Computer Science	AQA Computer Science
Qualification Support: • A dedicated team of 3 Computer Science Subject Advisors • Customer Contact Centre • CPD hub training courses – face to face, webinars and teachers' network meetings • Significant level of resources available to download from the subject webpage • Large Facebook community • ExamBuilder – free mock paper creation service • Extended range of sample assessment materials • Teacher Networks to allow face-to-face contact with the Computer Science Subject Advisor team and fellow colleagues	**Qualification Support:** • Qualifications manager and subject team • Customer support team • CPD training courses • Resources available • Facebook community

OCR Computer Science	AQA Computer Science
AS and A Level Specification: • Written exams for both AS and A Level components (paper 1 and paper 2) • Problem Solving assessed through pseudocode within Component 2 exam • AS shorter exam time-1 hour 15 mins • A Level shorter exam time – 2 hours 30 mins • Wide range of programming languages within specification. Ability to extend list of languages after discussion with OCR. • Code challenge tasks to use with teaching of content • Pseudocode guide, Programming Languages guide and Project Support guide available online • NEA - documenting the development of program code with comments as well as the final code required • An iterative development process which is more natural and self-intuitive. • NEA submission requires appropriate annotated evidence e.g. screen dump or photographs taken of screen layout, to support the project report in PDF • NEA marking is based on 'best fit' approach to marking using marking scheme	**AS and A Level Specification:** • On-screen exams for paper 1 and written exam for paper 2 • Use of programming language within on-screen exam paper 1 • AS longer exam time -1 hour 30 mins • Limited range of programming languages • No Pseudocode used • The development of program code not required, only the final code • No iterative development of the solution required • NEA project complexity guide - three different levels

Other: • No network issues / resourcing needs • No worries of computer crashes • No need to indicate programming language preference • Open design methodologies choice • Iterative lifecycle for NEA • Only Awarding Organisation to offer Entry Level, GCSE, AS and A Level qualifications. • All Computer Science qualifications are similar in their assessment strategies, giving continuity and confidence for students.	**Other:** • Requires a robust network for on-screen exam • Requires contingency plan if computer crashes • Must indicate programming language preference at the start of the course • No formal methodology or traditional systems lifecycle approach for NEA

Content

The content within the OCR AS and A Level Computer Science specification covers the 'Big Ideas' of Computer Science and will be very familiar. We've laid it out in a logical progression to support co-teaching the AS level and teaching the A level in a linear way.

OCR Computer Science	AQA Computer Science
AS Level Component 1: Computing Principles • Structure and Function of Processor • Types of Processor • Input, Output and storage • Operating Systems • Applications Generation • Introduction to Programing • Databases • Networks • Web Technologies • Data Types • Data Structures • Boolean Algebra	**AS Level** Paper 1: • Fundamentals of programming • Fundamentals of data structures • Systematic approach to problem solving • Theory of computation

OCR Computer Science	AQA Computer Science
• Computing Related Legislation • Ethic, moral and cultural issues	
AS Level Component 2: Algorithms and Problem Solving • Thinking Abstractly • Thinking Ahead • Thinking Procedurally • Thinking Logically • Programming Techniques • Software Development • Algorithms	**AS Level** Paper 2: • Fundamentals of data representation • Fundamentals of computer systems • Fundamentals of computer organisation and architecture • Consequences of uses of computing • Fundamentals of communication and networking
A Level Component 1 – Computer Systems • Structure and Function of Processor • Types of Processor • Input, Output and storage • Systems Software • Software Development • Types of Programming Language • Compression, Encryption and Hashing • Databases • Networks • Web Technologies • Data Types • Data Structures • Boolean Algebra • Computing Related Legislation • Ethic, moral and cultural issues	**A Level** Paper 1: • Fundamentals of programming • Fundamentals of data structures • Fundamentals of algorithms • Theory of computation • Systematic approach to problem solving
A Level Component 2 – Algorithms and Problem Solving • Thinking Abstractly	**A Level** Paper 2: • Fundamentals of data representation • Fundamentals of computer systems

OCR Computer Science	AQA Computer Science
• Thinking Ahead • Thinking Procedurally • Thinking Logically • Thinking Concurrently • Programming Techniques • Computation Methods • Algorithms	• Fundamentals of computer organisation and architecture • Consequences of uses of computing • Fundamentals of communication and networking • Fundamentals of databases • Big data • Fundamentals of functional programming
A Level Component 3 - Programming Project • Analysis of the problem (10 marks) o Problem identification o Stakeholders o Research the problem o Specify the proposed solution • Design of the solution (15 marks) o Decompose the problem o Describe the solution o Describe the approach to testing • Developing the solution (25 marks) o Iterative development process o Testing to inform development • Evaluation (20 marks) o Testing to inform evaluation o Success of the solution o Describe the final product o Maintenance and development	**A Level** Non-exam Assessment 3: • Analysis (9 marks) • Documented design (12 marks) • Technical solution (42 marks) • Testing (8 marks) • Evaluation (4 marks)

Assessment

OCR Computer Science	AQA Computer Science
AS Level (H046): Component 01 Computing principles **Written paper** – 1 hour and 15 minutes **70 Marks** 50% of total AS Level	**AS Level (7516):** Paper 1 Subject content 1-4 (programming etc.) **On-screen exam** – 1 hour and 30 minutes **75 Marks** 50% of the total AS Level
AS Level (H046): Component 02 Algorithms and problem solving Written paper – 1 hour and 15 minutes **70 Marks** 50% of total AS Level	**AS Level (7516):** Paper 2 Subject content 5-9 (computer systems etc.) Written paper – 1 hour and 30 minutes **75 Marks** 50% of the total AS level
A Level (H446): Component 01 Computer system **Written paper** – 2 hours and 30 minutes **140 Marks** 40% of total A Level	**A Level (7517):** Paper 1 Subject content 10-13 (programming etc.) **On-screen exam** – 2 hours and 30 minutes **100 Marks** 40% of total A Level
A Level (H446): Component 02* Algorithms and programming Written paper – 2 hours and 30 minutes **140 Marks** 40% of total A Level	**A Level (7517):** Paper 2 Subject content 14-21 (computer systems etc.) Written Exam – 2 hours and 30 minutes **100 Marks** 40% of total A Level
A Level (H446): Component 03* or 04* Programming project **70 Marks** 20% of total A Level * Indicates synoptic assessment	**A Level (7517):** Non-exam assessment Programming project **75 Marks** 20% of total A Level

Want to switch to OCR?

If you're an OCR-approved centre, all you need to do is download the specification and start teaching.

Your exams officer can complete an intention to teach form which enables us to provide appropriate support to them. When you're ready to enter your students, you just need to speak to your exams officer to:

1. Make estimated entries by 10 October so we can send you any early release materials, prepare the question papers and ensure we've got enough examiners.
2. Make final entries by 21 February

If you are not already an OCR-approved centre please refer your exams officer to the centre approval section of our admin guide.

Non-Examination Assessment

This qualification has one non-exam assessment which takes the form of the Programming project (Component 03 or 04). The project is a substantial piece of work which assesses a variety of different skills including the development and demonstration of computational thought processes. The assessment guidance within the specification page18 3f- non-exam assessment should be considered before learners embark on this particular assessment.

Next steps

1. Familiarise yourself with the specification, sample assessment materials and teaching resources on the Computer Science qualification page of the OCR website.
2. Browse the online delivery guides for teaching ideas and use the Scheme of Work builder to create your personal scheme of work.
3. Get a login for our secure extranet, Interchange – allows you to access the latest past/practice papers and use our results analysis service, Active Results.
4. Sign up to receive subject updates by email.
5. Sign up to attend a training event or take part in webinars on specific topics running throughout the year and or our Q&A webinar sessions every half term.
6. Attend one of our free teacher network events.