OPTION SUBJECT (EBACC)
GCSE COMPUTER SCIENCE

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Examination Board **OCR - Graded 1 – 9**

The Computer Science GCSE course is about problem solving, discovering how computers really work and developing software applications. There is a particular emphasis on cybersecurity and dealing with hackers!

The focus of this course is on computational thinking: creating solutions to tasks using a logical, step-by-step and inventive approach. We use the Python language to convert these solutions into working computer programs.

The course assesses students on a broad range of topics e.g. hardware, software, networks, cybersecurity, algorithms, programming, logic and problem-solving.

Exam and assessment arrangements for all GCSE computer science courses have recently changed. There is no longer a coursework / Non-Exam Assessment (NEA) element to the course. GCSE Computer Science is assessed through two written exams, each worth 50%:

1. Computer Systems (Theory)
2. Computational Thinking, Algorithms and Programming

Computer Science has become hugely influential in almost every part of today's society. The problem-solving skills you will acquire in this course are highly transferable and are valued in a wide range of careers, including those in science, technology and business. It is highly recommended for further study at A-level and is also a good foundation for Level 3 IT.

Content Overview	Assessment Overview
J277/01: Computer systems This component will assess: • 1.1 Systems architecture • 1.2 Memory and storage • 1.3 Computer networks, connections and protocols • 1.4 Network security • 1.5 Systems software • 1.6 Ethical, legal, cultural and environmental impacts of digital technology	**Written paper: 1 hour and 30 minutes** **50% of total GCSE** **80 marks** This is a non-calculator paper. All questions are mandatory. This paper consists of multiple choice questions, short response questions and extended response questions.
J277/02: Computational thinking, algorithms and programming This component will assess: • 2.1 Algorithms • 2.2 Programming fundamentals • 2.3 Producing robust programs • 2.4 Boolean logic • 2.5 Programming languages and Integrated Development Environments	**Written paper: 1 hour and 30 minutes** **50% of total GCSE** **80 marks** This is a non-calculator paper. This paper has two sections: Section A and Section B. Students must answer both sections. All questions are mandatory. In Section B, questions assessing students' ability to write or refine algorithms must be answered using either the OCR Exam Reference Language or the high-level programming language they are familiar with.