

## GCE A Level Computer Science OCR

Designed after consultation with members of the British Computer Society and a number of top universities, OCR's AS and A Level Computer Science qualification inspire and challenge students to apply the knowledge they gain with the creative and technical skills they acquire.

### Assessment:

**Unit 1:** Computer Systems (40%). This unit is assessed via written examination. Topics include: the characteristics of contemporary processors, input, output and storage devices; software and software development; exchanging data; data types, data structures and algorithms; legal, moral, cultural and ethical issues.

**Unit 2:** Algorithms and Programming (40%). This unit is assessed via written examination. Topics include: elements of computational thinking; programming and problem solving; pattern recognition, abstraction and decomposition; algorithm design and efficiency.

**Unit 3:** Programming Project (20%).

### Topics Covered per Half Term

Terms	Year 12	Year 13
<b>Autumn 1</b>	Programming Structure & function of the Processor Types of Processor	Project Structure and function of the processor. Input, output and storage Operating systems Application Generation Software Development Types of programming language Compression, encryption and hashing Databases
<b>Autumn 2</b>	Programming Input, output and storage Data Types Boolean Algebra Operating Systems	Projects Networks Web technologies Data types
<b>Spring 1</b>	Programming Legislation Application Generation Software Development	Project Data structures Boolean Algebra Computer related legislation

	<p>Compression, encryption, hashing</p> <p>Databases</p> <p>Networks</p>	Ethical, moral and cultural issues
<b>Spring 2</b>	<p>Programming</p> <p>Ethical, moral and cultural issues</p> <p>Data Structures</p> <p>Types of programming language</p>	<p>Project</p> <p>Computational thinking</p> <p>Programming techniques</p> <p>Computational methods</p>
<b>Summer 1</b>	<p>Programming</p> <p>Programming techniques</p> <p>Thinking abstractly</p> <p>Thinking procedurally</p> <p>Thinking logically</p> <p>Algorithms</p>	<p>Algorithms</p> <p>Revision</p>
<b>Summer 2</b>	Exams	Exams