


Year 10 GCSE Computer Science	Curriculum Intent: OCR's GCSE (9–1) in Computer Science will encourage students to <ul style="list-style-type: none"> • understand and apply the fundamental principles and concepts of Computer Science, including abstraction, decomposition, logic, algorithms, and data representation • analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs • think creatively, innovatively, analytically, logically and critically • understand the components that make up digital systems, and how they communicate with one another and with other systems • understand the impacts of digital technology to the individual and to wider society • apply mathematical skills relevant to Computer Science 			
OCR J277:	Term 1:	Term 2:	Term 3	
Topic Titles (in order of delivery)	<ul style="list-style-type: none"> • 1.4 Network security • 1.5 Systems software • 1.6 Ethical, legal, cultural and environmental impacts of digital technology • 2.3 Producing robust programs • 2.5 Programming languages and Integrated Development Environments 	<ul style="list-style-type: none"> • 2.1 Algorithms • 2.2 Programming fundamentals 	<ul style="list-style-type: none"> • 2.1 Algorithms • 2.2 Programming fundamentals 	
Key knowledge / Retrieval topics		<ul style="list-style-type: none"> • 1.1 Systems architecture 	<ul style="list-style-type: none"> • 1.2 Memory and storage • 1.3 Computer networks, connections and protocols • 1.4 Network security • 2.4 Boolean logic 	
Understanding / Sequence of delivery	1.4.1 Threats to computer systems and networks 1.4.2 Identifying and preventing vulnerabilities 1.5.1 Operating systems 1.5.2 Utility software 1.6.1 Ethical, legal, cultural and environmental impact 2.3.1 Defensive design 2.3.2 Testing 2.5.1 Languages	1.1.1 Architecture of the CPU 1.1.2 CPU performance 1.1.3 Embedded systems 2.1.1 Computational thinking 2.1.2 Designing, creating and refining algorithms 2.1.3 Searching and sorting algorithms 2.2.1 Programming fundamentals 2.2.2 Data types	1.2.3 Units 1.3.1 Networks and topologies 1.4.2 Identifying and preventing vulnerabilities 2.1.2 Designing, creating and refining algorithms 2.2.3 Additional programming techniques 2.4.1 Boolean logic	

	2.5.2 The Integrated Development Environment (IDE)		
Assessments	End of Topic Tests	CAT	End of Topic Tests PPE