



Year 10 Computer Science Curriculum Map

Overview	<p>OCR's GCSE (9–1) in Computer Science will encourage students to:</p> <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. <p>All students will be given the opportunity to undertake programming tasks using Python, to solve problems during their course of study.</p>					
Year 10	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Systems architecture	Memory and storage	Computer networks, connections and protocols	Network security	Systems software	Ethical, legal, cultural and environmental impacts of digital technology
Knowledge	Architecture of the CPU CPU performance Embedded systems	Primary storage (Memory) Secondary storage Units Data storage Compression	Networks and topologies Wired and wireless networks, protocols and layers	Threats to computer systems and networks Identifying and preventing vulnerabilities	Operating systems Utility software	Ethical, legal, cultural and environmental impact
Skills	<p>AO1 Demonstrate knowledge and understanding of the key concepts and principles of Computer Science. AO2 Apply knowledge and understanding of key concepts and principles of Computer Science. AO3 Analyse problems in computational terms:</p> <ul style="list-style-type: none"> ▪ to make reasoned judgements ▪ to design, program, evaluate and refine solutions. 					