



Year 11 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 11	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer
Topic	Programming fundamentals	Algorithms	Producing robust programs	Boolean logic Programming languages and Integrated Development Environments	Revision
Knowledge	Programming fundamentals Data types Additional programming techniques	Computational thinking Designing, creating and refining algorithms Searching and sorting algorithms	Defensive design Testing	Boolean logic Languages The Integrated Development Environment (IDE)	
Skills	<p>AO1 Demonstrate knowledge and understanding of the key concepts and principles of Computer Science.</p> <p>AO2 Apply knowledge and understanding of key concepts and principles of Computer Science.</p> <p>AO3 Analyse problems in computational terms:</p> <ul style="list-style-type: none"> ▪ to make reasoned judgements ▪ to design, program, evaluate and refine solutions. 				