Year 13 Computer Science Curriculum Map

Overview	OCR's A Level in Computer Science will enable students to develop: ▪ an understanding of and ability to apply the fundamental principles and concepts of computer science including; abstraction, decomposition, logic, algorithms and data representation ▪ the ability to analyse problems in computational terms through practical experience of solving such problems including writing programs to do so ▪ the capacity for thinking creatively, innovatively, analytically, logically and critically ▪ the capacity to see relationships between different aspects of computer science ▪ mathematical skills ▪ the ability to articulate the individual (moral), social (ethical), legal and cultural opportunities and risks of digital technology				
Year 13	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
Topic	Elements of computational thinking Project: Analysis of the problem	Problem solving and programming Project: Design of the solution	Algorithms Project: Developing the solution	Project: Developing the solution Evaluation	Revision
Knowledge	Thinking abstractly Thinking ahead Thinking procedurally Thinking logically Thinking concurrently	Programming techniques Computational methods Project: Decompose the problem Describe the solution Describe the approach to testing	Algorithms Project: Iterative development process Testing to inform development	Project: Iterative development process Testing to inform development Testing to inform evaluation Success of the solution Describe the final product Maintenance and development	
Skills	AO1 Demonstrate knowledge and understanding of the principles and concepts of computer science, including abstraction, logic, algorithms and data representation AO2 Apply knowledge and understanding of the principles and concepts of computer science including to analyse problems in computational terms AO3 Design, program and evaluate computer systems that solve problems, making reasoned judgements about these and presenting conclusions				