Y12 Computer Science

Link to spec	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content Knowledge	C1.The characteristics of contemporary processors, input, output and storage devices	C1. Software and software development	C1 Exchanging data C1. Data types, data structures and algorithms	C1. Legal, moral, cultural and ethical issues	Revision and Mock practice	NEA: Each learner is able to tailor their project to fit their individual interests.
	C2. Elements of computational thinking	C2. Problem solving and programming	C2. Algorithms to solve problems and standard algorithms	NEA practice: Software dev. : • Analysis of the problem • Design of the solution	NEA practice: Software dev. : • Developing the solution • Evaluation	
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	
Key Questions	What real-world problems can be solved using computational methods?	How can we apply computational methods when designing solutions?	How is data stored digitally?	How is the world around us affected by the use of digital technology?	How long is the exam? What is the best way to answer essay style exam questions?	What does a top mark NEA look like? What steps should be followed to ensure that all aspects of the NEA are covered?
Assessment	Low stakes/POP tests and End of Unit tests.				Exam style	NEA is assessed

		practice questions.	internally and via external moderation by OCR.
Literacy/numeracy/SMSC/Character	Emphasis on the mathematical skills used to express computational laws and processes. This qualification is suitable for learners intending to pursue any career in which an understanding of technology is needed.		
Enrichment opportunities and futures	Research session looking into computing related degree courses and universities. Alumni talks. Germany trip to visit the Computerspiele museum and the Game Science museum. Many students chose to assist in computing lessons as part of their community leadership. Students typically go on to degree level study in fields such as computer science, Cyber security, data science, mathematics, business.		