Year 11 Computing Curriculum Rationale

In Year 11 students will focus on a variety of key Computing skills; Programming, Ethics, Computer Systems, and Software Development. Student will use a wide range of different software and develop their digital literacy over the course of the year. Students will enter with a good understanding of how computer systems operate, and how they can be programmed to automate and solve problems.

Unit	Core knowledge/skill development	Sequence	Assessment	Literacy, numeracy, PSHE, FBV, other links	ACP and VAA development	Home learning and enrichment
11.1 Programming	Programming Fundamentals Sequence and Selection Iteration Arrays	Builds on students existing understanding of programming fundamentals, extending into arrays and how to use them.	End of unit assessment (test) and marked work (presentation)	PSHE Online Safety Ethics and eSafety - impacts of technology on society, digital security	Analysing – critical and logical thinking (deduce, hypothesise, reason, and seek evidence). Connection Finding – Using connections from past experiences to seek generalisations.	Topic based research, audio reflection assignment
11.2 Programming 2	Procedures and Functions Records and Files Introduction to SQL	Functions and procedures are taught explicitly, in addition to knowledge of SQL and records. GCSE content	End of unit assessment (project) and marked work (programming project)	Numeracy - correct use of units for computing concepts, greater than, less than, Boolean logic.	Analysing – critical and logical thinking (deduce, hypothesise, reason, and seek evidence).	Topic based research, audio reflection assignment
11.3 Logic and Languages	Logic diagrams Defensive design Errors and testing Translators and Facilities	Technical understanding of components of logic gates and builds on how computers work. Also builds on the thinking needed to break down and	End of unit assessment (test) and marked class work	STEAM - explore links with science, design and technology, the arts and maths	Creating, Fluent thinking– The ability to generate ideas. / Originality – conceiving something entirely new	Topic based research, audio reflection assignment

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	IDE's	solve problems Content covers GCSE content with reduced depth				
11. Revision – unit 6 -8 then 1 - 5	All GCSE Content covered via exam questions and mock papers	Exposure to exam questions and focus on reading and writing pseudocode, HTML and python. Will continue until exams are completed	Summer Assessments, SmartRevise online platform			Weekly homework activities