PROGRAMME OF STUDY

KS5 YEARS 12 & 13 COMPUTER SCIENCE 2025/2026

EWELL CASTLE SCHOOL

YEAR	TERM 1 (Autumn)	TERM 2 (Spring)	TERM 3 (Summer)
YEAR 12	Computer Systems • Structure and function of the processor • Types of processors • Input output and storage • Operating systems – Systems software Algorithms • Thinking abstractly • Thinking ahead • Thinking procedurally • Thinking logically • Thinking concurrently • Programming techniques • Computational methods	Computer Systems • Introduction to programming • Types of programming language • Application generation • Software development • Compression encryption and hashing Algorithms • Analysis &design of algorithms • Standard algorithms • Algorithms for the main data structures • Implement linear search • Implement binary search • Implement bubble sort • Implement insertion sort • Representing, adding & removing from queues & stacks Non-Exam Assessment	Computer Systems • Networks • Web Technologies Algorithms • Comparing suitability of algorithms • Implement merge sort • Implement quick sort • Dijkstra's shortest path • A star pathfinding • A star pathfinding revisited • Measures and methods to determine efficiency of algorithms • Comparison of the complexity of algorithms • Big O notation in practice Non-Exam Assessment
YEAR 13	Computer Systems • Databases • Data types • Boolean algebra • Computer related legislation • Ethical moral and cultural issues Non-Exam Assessment	Computer Systems • Data structures • Boolean Algebra Revision Non-Exam Assessment	Revision Non-Exam Assessment