KS5 Year 12 CURRICULUM OVERVIEW

Computer Science: Year 12

	Topics being taught	What you will be assessed on	How you can support at home
Autumn Term	**Paper 1:** Structure and Function of processors Types of processors. Data Types	• Structure and Function of Processor • Processor Components • Binary Conversions	OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com) OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com)
OCTOBER 1/2 TERM	**Paper 2: Programming Fundamentals**	• Programming Constructs Integrated Development Environment Global & Local Variables Functions Recursion • OOP • Programming Practice .	OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com) Your Python Trinket
CHRISTMAS	**Paper 1: Boolean Algebra and Data Exchange.**	Manipulate Boolean expressions Relational Databases and SQL	OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com) SQL Tutorial (w3schools.com)
Spring Term	**Paper 2: Programming Fundamentals** **Algorithms and Computational Thinking**	• Programming Skills – GUI/Databases Types of programming language. • Computational Thinking, Algorithms and Programming • Searching and Sorting Algorithms	Your Python Trinket OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com)
EASTER	**Computer Networks and Web Technologies**	Characteristics of networks HTML, CSS and JavaScript. PageRank algorithm.	OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com) HTML Tutorial (w3schools.com)
MAY 1/2 TERM	**Software Development NEA**	• Software Development Methodologies • NEA • Analysis of the problem • Design of the solution	OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com) Your Python Trinket
Summer Term			

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KS5 Year 13 CURRICULUM OVERVIEW

Computer Science: Year 13

	Topics being taught	What you will be assessed on	How you can support at home
Autumn Term	**Paper 1: Data Structures**	Arrays and Lists Dictionaries Hashing Graphs Linked List	OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com) OCR H446/01 – 1.4 Data types, data structures and algorithms - 101 Computing
OCTOBER 1/2 TERM	**NEA.** **Paper 2: Algorithms**	• Development • Testing • Dijkstra Algorithms A* Algorithms • Big O Notation	OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com) OCR H446/02 – 2.3 Algorithms - 101 Computing
Spring Term	**Paper 2: Computational Methods**	Backtracking • Data mining • Heuristics • Performance modelling • Pipelining Visualisation to solve problems	OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com) OCR H446/02 – 2.1 Elements of computational thinking - 101 Computing
FEBRUARY 1/2 TERM	**Paper 1: Ethical, Legal, Cultural and Environmental Issues**	• Impacts of Technology: Case Studies & Extended Writing	OCR A-Level Computer Science Revision - PMT (physicsandmathstutor.com) OCR H446/01 – 1.5 Legal, moral, cultural and ethical issues - 101 Computing
Summer Term	**Revision Techniques & Exam Practice**	• Paper 1 – Computer Systems Paper 2 – Algorithms and Programming	Past papers materials finder - OCR Your Python Trinket
MAY 1/2 TERM	**Revision Techniques & Exam Practice**	• Paper 1 – Computer Systems Paper 2 – Algorithms and Programming	Past papers materials finder - OCR Your Python Trinket

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