



KS4 Computing

	Content
Year 10 HT1	System Architecture - Computer Components, Boolean Logic, Von Neumann Architecture, Low Level Languages and Assemblers, CPU Performance and Embedded Systems.
Year 10 HT2	Primary Storage, Unit Sizes and conversions, Secondary Storage and Characteristics, Compression.
Year 10 HT3	Algorithms - Students explore algorithmic design, flow charts.
Year 10 HT4	Data Representation - Numbers, Characters, Images, Sound, Compression. Binary, Hexadecimal.
Year 10 HT5	Networks - How Networks Work, Network Hardware, the Internet, Topologies, Network Protocols.
Year 10 HT6	System Security - Network Threats, Malware & Cyber Resilience (Social Engineering, Penetration Testing)
Year 11 HT1	Operating Systems & Utility Software - Students explore how their devices are managed and maintained using a variety of software.
Year 11 HT2	Programming Techniques and Languages - Students will learn more about how to structure and write efficient programs using procedures and functions.
Year 11 HT3	Computational Logic & Robust Design - In this unit students will learn more about the use of logic gates to create and plan flowcharts and formula to create effective algorithms. They will also learn about robust design, enabling them to create programs that can withstand misuse.
Year 11 HT4	Ethics, Legal & Environmental Concerns - Students will discuss many different scenarios and concerns throughout computing, and the use of technology in the modern world.
Year 11 HT5	<u>Students will be completing formal GCSE exams</u>
Year 11 HT6	<u>Students will be completing formal GCSE exams</u>