

Year 10 Curriculum Overview [2022-2023]
Subject : OCR GCSE (9-1) J277 Computer Science

Autumn Term	Knowledge & Understanding			Literacy Skills Opportunities for developing literacy skills	Employability Skills [if any]	Assessment Opportunities
	Composites	Components [KEY concepts & subject specific vocab]	Formal Retrieval [if any]			

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Spring Term	Knowledge & Understanding			Literacy Skills Opportunities for developing literacy skills	Employability Skills [if any]	Assessment Opportunities
	Composites	Components [KEY concepts & subject specific vocab]	Formal Retrieval [if any]			
HT1	Data Handling	Boolean logic; truth tables, logic gates, logic diagrams Data storage; data capacity, binary to denary to hex conversions and vice versa Binary Shifts Characters; Character set, ASCII and Unicode Images; pixels, metadata, colour depth, resolution, quality and file size Sound; sample rate, duration, bit depth, playback quality and file size Compression; purpose and types	Do It Now Heard the word Past paper questions	Explicit vocabulary activities Learning conversations to develop oracy, using accurate key terminology WAGOLL past paper question analysis, with key term focus	High level key terminology widely used in industry Problem solving Computational thinking Maths User Experience (UX)	MCQs at end of topic Formative question sheet every 5 th lesson Summative assessment – past paper questions
HT2	System Architecture	Computational thinking The purpose of the CPU; fetch-decode-execute cycle Common CPU components and functions; ALU, CU, Cache and Registers Von Neumann architecture; MAR, MDR, Program Counter, Accumulator				

Throughout the term	Designing, creating and refining algorithms. Programming fundamentals	Sequence, selection, iteration String manipulation Procedures and Functions Computational thinking				
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Summer Term	Knowledge & Understanding			Literacy Skills Opportunities for developing literacy skills	Employability Skills [if any]	Assessment Opportunities
	Composites	Components [KEY concepts & subject specific vocab]	Formal Retrieval [if any]			
HT1	Memory and Storage	Primary storage; ROM, RAM, Virtual Memory Secondary storage; Optical, magnetic, solid state Storage characteristics; Capacity, Speed, Portability, Durability, Reliability, Cost	Do It Now Heard the word Past paper questions	Explicit vocabulary activities Learning conversations to develop oracy, using accurate key terminology WAGOLL past paper question analysis, with key term focus	High level key terminology widely used in industry Problem solving Computational thinking Maths Network management Project Management	MCQs at end of topic Formative question sheet every 5 th lesson Summative assessment – past paper questions
HT2	Networking	Networks LAN/WAN Networking hardware Client-server and Peer-to-peer network Topologies Wired and wireless networks The Internet; DNS, hosting, The cloud Protocols and layers				
Throughout the term	Designing, creating and refining algorithms. Programming fundamentals	Sequence, selection, iteration String manipulation Procedures and Functions File Handling Computational thinking				