



GCSE Computer Science Year 2 Curriculum Planning Sequence

Subject	Year	Term	Big Ideas	Topics	Subject Learning Checklist
GCSE Computer Science Year 2	Year 11	Term 1 - 30hrs	3.5 Fundamentals of computer networks	3.5 Fundamentals of Computer Networks	
			3.1 Algorithms	3.1.2 Efficiency of Algorithms	
				3.1.3 Searching Algorithms	
				3.1.4 Sorting Algorithms	
				3.6.1 Fundamentals of Cyber Security	
			3.6 Fundamentals of cyber security	3.6.2 Cyber Security Threats	
				3.6.2.1 Social Engineering	
				3.6.2.2 Malicious code	
				3.6.3 Methods to detect and prevent cyber security threats	
			3.7 Relational Databases	3.7.1 Relational Databases	
		3.7.2 Structured Query Language			
		Term 2 - 30hrs	3.8 Ethical, legal and environmental impacts of digital technology on wider society, including issues of privacy	3.8 Ethical, legal and environmental impacts of digital technology on wider society, including issues of privacy	
			REVISION 3.1 Algorithms	3.1.1 Representing algorithms	
				3.1.2 Efficiency of algorithms	
				3.1.3 Searching algorithms	
				3.1.4 Sorting algorithms	
			REVISION 3.3 Data representation	3.3.3 Units - Bits, Bytes, Kilobytes, Megabytes	
				3.3.4 Binary Arithmetic	
				3.3.5 Character encoding (ASCII and Unicode)	
				3.3.6 Representing Images	
				3.3.7 Representing Sound	
		3.3.8 Compressing Data			
		3.4.1 Hardware and Software			
		REVISION 3.4 Computer systems	3.4.2 Boolean logic (AND, OR, NOT, XOR circuits & Expressions)		
3.4.3 Application and System Software					
3.4.4 High Level and Low Level Programming					
3.4.5 CPU, RAM, ROM, HDD, Cloud Storage, Embedded Systems					
3.5 Fundamentals of Computer Networks					
3.6.1 Fundamentals of Cyber Security					
3.6.2 Cyber Security Threats					
3.6.2.1 Social Engineering					
3.6.2.2 Malicious code					
3.6.3 Methods to detect and prevent cyber security threats					
Term 3 - 24hrs	3.7.1 Relational Databases				
	3.7.2 Structured Query Language				
1hr Cycle Programming Teacher Lead and Independent Programming					