

Curriculum map for NEW Curriculum 2019 - 2024

Computer Science

			Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Key stage 3	Year 7 (2019/2020)	Knowledge	7.1: INTERNET SAFETY & SECURITY		7.2: SYSTEM ARCHITECTURE		7.3: SOFTWARE & THE CLOUD		
		Skills	<ul style="list-style-type: none"> Acceptable Use Policies Online Safety/ Bullying Phishing Web Browsing Presentation 		<ul style="list-style-type: none"> Input/ Output & Processing Fetch-Decode-Execute ROM & RAM Storage Web Browsing Presentation 		<ul style="list-style-type: none"> Operating Systems Applications & System Utilities Cloud Storage Software Scenarios Web Browsing Presentation 		
	Year 8 (2020/2021)	Knowledge	8.1: FAKE NEWS & SEARCHING THE INTERNET		8.2: DATABASES		8.3: COMPUTER MODELLING		
		Skills	<ul style="list-style-type: none"> Search Engines Boolean Searching Search Algorithms Accuracy & Reliability Web Browsing Presentation 		<ul style="list-style-type: none"> Purpose of Databases Design Fields & Data Types Development Queries Reports Presentation 		<ul style="list-style-type: none"> Purpose of Spreadsheets Functions & Formulae Design Sorting & Ordering Data Conversion Presentation 		
Key stage 4	Year 9 (2021/2022)	Knowledge	.1: COMPUTER NETWORKS & CYBERCRIME			7.2: SYSTEM ARCHITECTURE		9.3: CRYPTOGRAPHY	
		Skills	<ul style="list-style-type: none"> LAN & WAN Network Topology Vulnerabilities Malware & Spyware Cyber Attacks Social Engineering Web Browsing Presentation 			<ul style="list-style-type: none"> Embedded Systems Input & Output Iteration Selection Scripts Programing Presentation 		<ul style="list-style-type: none"> Methods Caesar Cyphers Decoding/ Encoding Rail Fence Cyphers Substitute Cyphers Web Browsing Presentation 	
Key stage 4	Year 10 (2022/2023)	Knowledge	1.2.3, 1.2.4, 1.2.5 (& topic test) Binary conversion, addition and file conversion. Converting images and sound to binary.	2.1.1, 2.1.2, 2.1.3., 2.2.1, 2.2.1, Programming theory (sequence, selection, iteration, decomposition, abstraction). Flow charts and pseudocode.	2.2.3, 2.3.1, 2.3.2, 2.4.1, Programming theory, logic gates, testing and IDE environment.	2.5.1, 2.5.2 (& topic test) IDE environment. High Vs low level language.	1.6.1 (& extended writing practice) Legal, ethical, environmental and unequal access	1.1.1, 1.1.2, 1.1.3, 1.2.1, 1.2.2 (& topic test) CPU, computer architecture, memory, storage and embedded systems.	
		Skills	Applying conversion skills to scenarios.	Programing application to meet criteria and solve problems. Testing to evaluate and refine algorithms.	Programing application to meet criteria and solve problems. Testing to evaluate and refine algorithms.		Application of above knowledge to scenarios, being able to balance an argument, DISCUSS, DESCRIBE and conclude. Application of Point Evidence Link.	Applying knowledge to scenarios and recognising links in common exam questions (e.g. "cores" requires working around multitasking of FDE cycles, "CPU" requires discussion of FDE cycle.)	
	Year 11 (2023/2024)	Knowledge	Prior knowledge (2.1.1 - 2.5.2)	Prior knowledge (2.1.1 - 2.5.2)	1.3.1, 1.3.2, 1.4.1, 1.4.2 (& topic test) Malware and security	1.5.1, 1.5.2 (& topic test) OS and utilities	2.2.3 (SQL) SQL key commands	Exam practice and revision	
		Skills	programming challenge (inc 2.1.1 - 2.5.2)	programming challenge (inc 2.1.1 - 2.5.2)	Ability to match malware to most appropriate security in general and in a scenario.		Application of key commands to create queries for scenarios	Analysis of past exam papers. Common questions and general exam technique. Revision.	