

Curriculum Narrative



Subject: Computing	Year: 8	Author: N. Ogu
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Key Knowledge <i>Students will know</i>	Key Skills <i>Students will be able to</i>
<u>Key Threshold Concepts:</u> Year 8 Computing builds on Year 7 through three core strands: networks, programming, and data modelling. Students will know: - How computer networks operate, including LANs and WANs, wired and wireless transmission, network hardware (routers, switches, NICs, wireless access points), and star and mesh topologies. - Why networks need to be kept secure, linking back to Year 7 malware and social engineering. - How programs are written in Edublocks, bridging from blocks to text, using variables, input, selection and iteration. How data can be modelled and analysed in spreadsheets, using formulas, functions, IF logic, sorting, filtering and charts.	<u>Subject Skills:</u> By the end of Year 8, students should be able to - Describe and compare types of network and explain how key hardware enables communication. - Design a network for a given scenario and justify the topology chosen. - Write structured programs in Edublocks using variables, input, selection and loops. Organise and analyse data using spreadsheet functions to support decision-making, and present findings in a chart.

<u>Subject Specific Knowledge and Sequencing:</u> 1 lesson each two-week cycle Term 1 - How the internet reaches you (Networks). Students learn network types, hardware, topologies (star and mesh) and network security, and design a network for a real scenario. Term 2- From blocks to code (Edublocks). Programming is placed in the reliable spring term to protect it. Students bridge from blocks to text, using variables, input, selection and iteration to build a working game. Term 3- Spreadsheets that do the work for you. Students use formulas, functions, sorting, filtering and charts to model and analyse data.	<u>Prerequisites and Spiral Teaching:</u> - Students begin Year 8 with the foundational knowledge expected at the start of KS3 Computing. - Core ideas are revisited regularly through retrieval practice to strengthen retention. - Misconceptions are addressed early through low-stakes checks and portfolio review. - Selection and sequencing introduced in Year 7 spiral into Edublocks programming and spreadsheet logic. - Prior learning is continually built upon so students can apply familiar ideas in new contexts (networks to data modelling to programming).
	<u>Cross-Curricular Knowledge Links</u> Maths: logic, data handling, charts and problem-solving.



	• Business: spreadsheets for modelling costs, predictions and decision-making. • Geography/Science: presenting and interpreting data. • PSHE: safe and responsible use of networks and online systems.
Reading Lists / Sources / Reading around the subject recommendations:	
• NCCE KS3 Computing units - networks, programming, data modelling. • BBC Bitesize KS3 Computing - networks, spreadsheets, programming concepts. • Edublocks documentation -variables, input/output, selection, iteration. • NCSC CyberFirst - safe use of networks and online systems.	

