

Curriculum Narrative



Subject: Computing	Year: 7	Author: N. Ogu
---------------------------	----------------	-----------------------

Key Knowledge <i>Students will know</i>	Key Skills <i>Students will be able to</i>
<u>Key Threshold Concepts:</u> Year 7 Computing establishes the foundations for safe, confident and critical digital participation, and introduces how computers work and how programs are built. Students will know: - How online behaviour shapes digital footprints, and how social engineering and malware exploit human behaviour. - How to stay safe online, protect personal data, and recognise cookies, secure and insecure websites. - How computer systems process and store data, including the CPU and the fetch-decode-execute cycle, memory, binary representation, and the difference between hardware and software. - How logic gates (AND, OR, NOT) work and how truth tables describe them. How a program is planned and built, using decomposition, abstraction, flowcharts, and sequence and selection to create a game in Scratch	<u>Subject Skills:</u> <i>By the end of Year 7, students should be able to:</i> - Apply safe online decision-making strategies and evaluate risks. - Explain what a digital footprint is and state ways to protect it. - Convert denary to binary and explain the outputs of simple logic gates (AND, OR, NOT). - Break a problem down using decomposition and design a clear flowchart using standard symbols. - Plan and build a working game in Scratch using sequence and selection and extend it with a score or a second level.

<u>Subject Specific Knowledge and Sequencing:</u> 1 lesson each two-week cycle Term 1- staying safe and smart online. Students explore digital footprints, social engineering, malware, cookies and secure websites. This term secures safe, responsible practice before technical content. Term 2 Inside the machine. Students meet core computer science: how computers work (the CPU and FDE cycle, memory, components), binary, hardware versus software, and logic gates. Topics are sequenced concrete to abstract to manage cognitive load. Term 3: Build your first game (Scratch). Students apply computational thinking	<u>Prerequisites and Spiral Teaching:</u> - Students build on key digital skills and vocabulary developed in KS2 Computing. - Retrieval practice at the start of each lesson reinforces prior knowledge and deepens long-term retention. - Key concepts (input-process-output, data representation, sequencing) are revisited across the year to strengthen understanding. - Activity books and portfolio evidence provide ongoing assessment and inform targeted intervention for misconceptions. <u>Cross-Curricular Knowledge Links</u> - Maths: logic, binary, sequencing and problem-solving.
--	---



(decomposition, abstraction, flowcharts) to plan and build a maze game, using sequence and selection, then extend it. Scratch is placed in the summer as an accessible, exam-season-resilient introductory unit. This sequencing is deliberate: safe practice first, then how machines work, then applying that thinking to make something of their own.	- English: persuasive and advisory writing (online safety advice). - PSHE: online conduct, wellbeing and digital citizenship. Design Technology: planning, storyboarding and iterative improvement of a game.
Reading Lists / Sources / Reading around the subject recommendations:	
- NCCE KS3 Computing units - e-safety, computer systems, programming. - BBC Bitesize KS3 Computing - online safety, systems, Scratch. - Common Sense Education - digital footprint and online safety. - Scratch (scratch.mit.edu) - tutorials and starter projects.	

