

### National Curriculum Key Stage 3 ICT

TITLE	COVERED IN OLD SCHEME?	WHERE IS IT COVERED IN THE NEW OVERVIEW?	ANY EXAMPLE OF GOING BEYOND NC? (If relevant)
Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems	YES	Year 7 Module 2 Spreadsheets. Year 8 Module 4 Business Modelling	
Understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem	YES	Year 7 Module 5 Databases	
Use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions	YES	Year 8 Module 1 Scratch and 2 Python	
Understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal]	YES	Year 8 Module 2 Python	
Understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems	YES	Year 7 Module 3 Inside the box	
Understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits	YES	Year 8 Module 2 Python	
Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users	YES	Year 7 Module 4 DTP&E-Safety. Year 8 Module 3,4,5 Business	Most Modules are based around larger projects/end goals
Create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability	YES	Year 7 Module 4 DTP&E-Safety	
Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns	YES	Year 7 Module 4 DTP&E-Safety	