

Intent

“To give all students the opportunity to develop **computational thinking, information technology and digital media** skills, in order to facilitate further and higher levels of study in these areas leading to qualifications which equip them for a professional career.”

Our two "pillars" are problem-solving and digital responsibility.

How this intent maps across into our schemes, including progression and sequencing

Unit	Curriculum strand	Progression	Sequencing
Digital responsibility (y7)	Information technology	Builds on foundational learning of safe computer use from key stage 2	This has to come first to fulfil safeguarding obligations
Introduction to Computing and programming (y7)	Information technology, computational thinking	Beginning with an understanding of where computers have come from and what a computer system is. Scratch links from key stage 2	This needs to come first in order to understand the purpose of computers
Mobile app development (y7)	Information technology, computational thinking, digital media	Builds on understanding of what a computer system is gained in the introduction to Computing scheme. Introduction to project design for purpose and target audience introduces key curriculum themes in information technology	Computer systems >>> algorithms >>> programming >>> app web development: A computer system is made up of inputs, processes and outputs. Processes can be described (designed) as algorithms. Algorithms are converted into computer programs.
Using media to gain support for a cause (y7)	Information technology, Digital media	Builds on digital responsibility and veracity of online information. Build on basic IT skills by learning word processing features	Digital responsibility >>> Use of media
Vector graphics (y7)	Digital media	Builds on purpose of media introduced in previous unit (theme of persuasion)	

Computing systems (y8)	Information technology	Builds on introduction to Computing (year 7)	Digital responsibility >>> computer systems: To use a computer we need to be able to use it safely
Computer networks (y8)	Information technology	Builds on understanding of what a computer system is (previous unit)	Data >>> computer systems >>> networks: To understand a network we need to understand what a computer (device) is. To understand what a computer device is we need to understand what a computer system is. To understand what a computer system is we need to understand what data is
Introduction to Python programming (y8)	Computational thinking	Builds on programming scheme in year 7 (text-based programming)	
Data representation (from clay to silicon) (y8)	Information technology, computational thinking	Builds on understanding of a computer system by educating students in how data is stored within that system	We need to understand the components within a computer system, in order to understand how data is stored/processed in those components
Modelling data using spreadsheets (y8)	Information technology	Application of understanding of data	Follows on from an initial learning of data in the previous unit
Media – animations (y8)	Digital media		Creative projects combine learning from different applications / previous units
Cybersecurity (y9)	Information technology, computational thinking	Builds on digital responsibility scheme from year 7 and knowledge of networks gained in year 8	Networks >>> cybersecurity: To understand the need for cybersecurity, we need to understand what a computer network is
Data science (y9)	Information technology, computational thinking	Builds on knowledge of data representation gained in year 8	

Python programming with sequences of data (y9)	Computational thinking	Builds on programming scheme from year 8 (e.g. lists and algorithms to traverse lists)	
Physical computing (y9)	Information technology, computational thinking	Builds on knowledge gained of computer systems in years 7 & 8	
Data representation (audio visual) (y9)	Information technology	Builds on knowledge gained from data representation in year 8	
Multimedia project (y9)	Information technology, digital media	Builds on knowledge gained from all units in digital media strand studied so far	Data representation (audio visual) >>> multimedia project. We select refine and combine assets for use in multimedia projects. In order to understand that multimedia products contain assets, we need to understand what assets are.
Computers and the law	Information technology	Builds on digital responsibility scheme from year 7	Digital responsibility >>> computers and the law: Computer misuse has consequences