

Computing 5 Year Curriculum Overview

5 Year Curriculum Intent:

To develop students' knowledge, skills and understanding through exposure to key computational concepts. The Computing curriculum has been designed to ensure learners have sufficient knowledge to stay safe online, understanding how computers work and be confident when using them. Students develop into resilient learners who are able to effectively solve problems and recover from mistakes.

	Autumn Term	Spring Term	Summer Term
Year 7	E-Safety, Using computers (folders etc) and the Internet Computational thinking / Bebras Challenge Spreadsheets and Databases	Spreadsheets and Databases Code development with Scratch	Internet and World Wide Web Micro:bit Python programming
5 Year Links	Online safety – covered in all years linked to Digital Literacy Computational thinking – in all years as the fundamental structure behind Computer Science	Spreadsheets and databases – Vocational ICT KS4 Databases – GCSE Computer Science Scratch coding as an introduction to coding constructs	Internet & WWW – link to networking topics Microbit programming introduction to Year 7 as Python programming to be developed further up to GCSE Computer Science
School Curriculum Links	Life Curriculum - online safety Maths, Technology - Computational thinking	Maths – spreadsheets Maths – programming and Algorithms	Maths – programming and Algorithms
Year 8	Digital Citizenship Computational thinking / Bebras Challenge Vector Graphics	Python Programming (input, output, selection, iteration)	Computing Systems (hardware & software) Developing for the Web (HTML & CSS coding)
5 Year Links	Digital Citizenship – covered in all years linked to Digital Literacy Computational thinking – in all years as the fundamental structure behind Computer Science Vector Graphics – Vocational IT	Vector Graphics – Vocational IT Python programming to be developed further up to GCSE Computer Science	Computer Systems – hardware and software components to GCSE Computer Science Developing for Web revise in year 9 with further code in Javascript
School Curriculum Links	Life Curriculum - Digital citizenship Maths, Technology - Computational thinking Art, Technology – Vector Graphics	Art, Technology – Vector Graphics Maths – programming and Algorithms	Art – developing for the web considering design, layout and colour
Year 9	Cyber Security Computational thinking / Bebras Challenge Data Representation – Boolean Logic	Vector Graphics – Logo design & development Python Programming	Developing for the Web (HTML, CSS & Javascript coding) Physical Computing with Raspberry Pi Pico
5 Year Links	Cyber Security – covered in all years linked to Digital Literacy Computational thinking – in all years as the fundamental structure behind Computer Science Boolean Logic – first topic covered in GCSE Computer Science	Vector Graphics – Vocational IT Python programming to be developed further up to GCSE Computer Science	Developing for the Web adding in year 8 to include Javascript to add interactivity
School Curriculum Links	Life Curriculum - cyber security Maths, Technology - Computational thinking	Art, Technology – Vector Graphics Maths – programming and Algorithms	Maths – programming and Algorithms
Year 10	IT - Image editing, Database design IT – Computer hardware CS – Logic, Data representation CS – intro to algorithms	IT – Spreadsheets, automated documents IT – Computer software and Systems CS- CPU, Primary & Secondary storage CS – programming techniques, Search & Sort	IT – Coursework practice and start assessment CS – Networks, topologies, protocols CS – programming techniques
5 Year Links	IT - Image editing – Year 8, 9 Computer Science – Hardware – Year 8	IT – Spreadsheets, Databases – Year 7 Computer Science – Software – Year 8	Computer Science – Networks – Year 8, 9

School Curriculum Links	Art, Technology – Vector Graphics Maths – logic and algorithms	Maths – spreadsheet formulae and functions Maths – logic and algorithms Technology – project development	Technology – project development Maths - algorithms
Year 11	IT – Coursework assessment CS – Systems threats, operating systems, testing CS – defensive design, Ethical, Legal, Cultural, IDE	IT – Unit 1: ICT in Society exam preparation CS – SQL, Unit 1 revision, programming practice	IT - Unit 1: ICT in Society exam preparation CS - Unit 1 revision, algorithm practice
5 Year Links	Computer Science – System threats – years , 7, 8, 9	Computer Science – SQL databases – year 7 (databases)	
School Curriculum Links	Technology – project development	Technology – project development	