

Computing YEAR 7 Curriculum

YEAR 7 Curriculum Intent:

To develop students' knowledge, skills and understanding through exposure to key computational concepts. The Year 7 Computing curriculum has been designed to ensure learners are introduced to key Computing concepts to stay safe online, develop problem solving skills and an understanding of how computer systems work. Through practical exercises students develop into resilient learners who are able to effectively solve problems and recover from mistakes.

	Autumn Term	Spring Term	Summer Term
Topics (with Curriculum links)	Collaborating online respectfully E-Safety, Using computers (folders etc) and the Internet - Digital Literacy Computational thinking / Bebras Challenge - Computer Science Spreadsheets and Databases (Developing formulae, functions and using databases to sort and filter data) - IT	Spreadsheets and using Databases (completion of unit) - IT Code development with Scratch (developing the concepts of inputs, outputs, decisions, repeated code through the use of simple block coding environment)- Computer Science	Internet and World Wide Web - Computer Science / IT Micro:bit Python programming (Writing simple python code to interact with the inputs and outputs of a physical computing device. (- Computer Science
Cross-curricular links	Maths - Graphs and statistics Life Curriculum – safe online and respect Technology – Problem solving, analysis of tasks and breaking down into smaller parts	Maths - Graphs and statistics Maths – Problem solving, variables and task analysis	Technology – working with sensors and electronic components
Interleaving of skills	Problem solving through online competition Repeated in years 8, 9, 10 Information vs data. Storage and manipulation Years 7 – 9 start with unit focused on the safe use of technology in the modern world	Introduction to problem solving and code development Information vs data. Storage of data and manipulation	Internet as an introduction to networks Move from block based to text based programming using physical device
Literacy	Disciplinary literacy and key terms are identified with lesson resources and referred to with the lesson objectives. There is extensive use of subject specific vocabulary.		
	Key Words: Browsers, Search Engines, respect, Abstraction, Decomposition, pattern recognition, algorithms, Cell reference, formula, function, trend	Key Words: Abstraction, Decomposition, pattern recognition, algorithms, Cell reference, formula, function, trend	Key Words: Network, Internet, World Wide Web, Search, Abstraction, Decomposition, pattern recognition, algorithms,
Numeracy	Using spreadsheet formula, functions, displaying information using graphs / charts Grid / cell references, Algorithm development	Algorithm development	Algorithm development
Cultural capital	Embed aspects of "Project Evolve" online safety resources into Digital Literacy curriculum	The wider use of technology in society as a whole.	Development of the internet & WWW and the impact they have had Pioneers of technology
Linking Curriculum to Careers	Transferable skills: Problem solving, identification of steps to solve problems, resilience, working safely in the online world	Transferable skills: Problem solving, identification of steps to solve problems, testing solutions, evaluation of success	Transferable skills: Problem solving, identification of steps to solve problems, testing solutions, evaluation of success
Assessment	Google form end of topic KMP – E Safety topic National Bebras Challenge Computational Thinking	Google form end of topic KMP – Spreadsheets and Databases, Code Development	Google form end of topic KMP – Internet & WWW, Micro:bit programming