

Computing Curriculum

Curriculum Intent

Through our computing curriculum at Pudsey Waterloo we aim to give our pupils the life-skills that will enable them to embrace and utilise new technology in a socially responsible and safe way in order to flourish. We want our pupils to leave Pudsey Waterloo with the breadth of skills and knowledge to be successful both in high school and the modern world of work. We want children to become autonomous, independent users of computing technologies, gaining confidence and enjoyment from their activities. We want the use of technology to support learning across the entire curriculum and to ensure that our curriculum is accessible to every child. Not only do we want them to be digitally literate and competent end-users of technology but through our computing lessons we want them to develop creativity, resilience, problem-solving and critical thinking skills. We want our pupils to have a breadth of experience to develop their understanding of themselves as individuals within their community but also as members of a wider global community and as responsible digital citizens. Our Computing curriculum focuses on a progression of skills in digital literacy, computer science, information technology and online safety to ensure that children become competent in safely using, as well as understanding technology. These strands are revisited repeatedly through a range of themes during children's time in school to ensure the learning is embedded and skills are successfully developed.

Substantive Concepts

Computer Science	Information Technology	Digital Literacy
Computer Science is the technical design that children need to be successful programmers. The design of new software, the solution to computing problems and the development of different ways to use technology. Children will have regular opportunities, using a wide-range of software and hardware to write their own algorithms and to solve problems. By the end of KS2, children will be able to understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.	Information technology is the technical knowledge that children need to be successful in computing. This includes the design, use and understanding of hardware and software; computers and electronic systems for storing and using information; the development, maintenance, and use of computer software, systems, and networks. The Internet, for example, comes under the umbrella term IT. So does computer hardware, software, and networking.	Digital Literacy is the ability and skill to find, evaluate, utilise, share, and create content using information technologies and the Internet. Digital literacy is an ever more important factor in education from a young age. Students must develop specific digital literacy skills when reading and interacting with online content that may contain embedded resources such as hyperlinks, audio clips, graphs, or charts that require students to make choices. A key focus is developing children's skills so that they can create, collaborate, and share digital content responsibly.

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Purple Mash Scheme of Work Overview

	Autumn	Spring	Summer
Reception	Unplugged Activities - Logic	Unplugged Activities - Sequencing (Algorithms)	Trackpad & Navigation Skills
	Self Image & Identity Online Relationships Online Reputations	Online Bullying Health, Wellbeing & Lifestyle Privacy & Security	Managing Online Information Copyright & Ownership
Year 1	Introduction to Purple Mash - Technology Around Us - Data Explorers	Creating & Following Instructions - Coding	Creative Computing - Animated Stories - Making Beats
	Self Image & Identity Online Relationships Online Reputations	Online Bullying Health, Wellbeing & Lifestyle Privacy & Security	Managing Online Information Copyright & Ownership
Year 2	The Internet - Questioning - Spreadsheet	Route Explorers - Coding	Presenting Ideas - Creating Pictures - Making Music
	Self Image & Identity Online Relationships	Online Reputations Online Bullying Health, Wellbeing & Lifestyle Copyright & Ownership	Privacy & Security Managing Online Information
Year 3	Branching Databases - Spreadsheets	Route Planners - Coding	Touch Typing - Email - Presenting Ideas
	Self Image & Identity Online Relationships	Online Reputations Online Bullying Health, Wellbeing & Lifestyle	Managing Online Information Copyright & Ownership

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	Autumn	Spring	Summer
Year 4	Unpacking Hardware & Software - Effective Searching - Introduction to AI	Logo - Coding	Animation - Sound Stories - Composing Beats
	Self Image & Identity Online Relationships Online Reputations	Online Bullying Health, Wellbeing & Lifestyle Privacy & Security	Managing Online Information Copyright & Ownership
Year 5	Quizzing - Databases - Spreadsheets	Coding - Game Creator	Concept Maps - Word Processing
	Self-Image & Identity Online Reputation Health, Wellbeing & Lifestyle Privacy & Security	Online Relationships Online Bullying	Managing Online Information Copyright & Ownership
Year 6	Graphing - Data Detectives - Spreadsheets	Coding - Introduction to Python	Networks - Blogging - 3D Modelling
	Self Image & Identity Online Relationships Online Reputations Online Bullying	Health, Wellbeing & Lifestyle Privacy & Security Copyright & Ownership	Managing Online Information