

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
<p>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.</p>	<p>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.</p>	<p>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.</p>

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Purple Mash Scheme of Work Overview

	Autumn	Spring	Summer
Reception	Unplugged Activities	Unplugged Activities	Trackpad & Navigation Skills
	Online Safety To be delivered throughout the year using 2BeSafe		
Year 1	Introduction to Purple Mash - Creative Computing - Data Explorers	Creating & Following Instructions - Animated Stories - Coding	Technology Around - Us Making Beats
	Online Safety To be delivered throughout the year using 2BeSafe		
Year 2	Route Explorers - The Internet - Creating Pictures	Spreadsheet - Questioning - Coding	Presenting Ideas - Making Music
	Online Safety To be delivered throughout the year using 2BeSafe		
Year 3	Email - Route Planners - Branching Databases	Spreadsheets - Coding	Presenting Ideas - Touch Typing
	Online Safety To be delivered throughout the year using 2BeSafe		
Year 4	Unpacking Hardware & Software - Animation - Logo	Sound Stories - Effective Searching - Coding	Making Music - Introduction to AI
	Online Safety To be delivered throughout the year using 2BeSafe		
Year 5	Quizzing - Databases - Game Creator	Spreadsheets - Coding	Word Processing - Concept Maps
	Online Safety To be delivered throughout the year using 2BeSafe		
Year 6	Networks - Graphing - Blogging	Data Detectives - Coding - Introduction to Python	Spreadsheets - 3D Modelling - Binary
	Online Safety To be delivered throughout the year using 2BeSafe		