

Dodford First School

Our Values				
Perseverance	Respect	Independence	Determination	Excellence
Our Golden Threads				
Vocabulary and Oracy	Breadth and Mastery	Diversity and Inclusion	Digital Literacy and Personal Safety	

Computing Curriculum Statement

At Dodford First School, we encourage a passion for Computing in all children, fostering curiosity and creativity through engaging and relevant learning experiences. We equip our children with the essential skills and knowledge necessary for navigating an increasingly digital world, ensuring they are confident and competent users of technology. Additionally, our curriculum is designed to broaden their understanding of the digital landscape and its implications in everyday life. Online Safety and Personal Safety are fundamental components of our Computing curriculum, and each learning opportunity promotes the importance of responsible digital citizenship.

Computing teaching at Dodford First School aims to provide all children, from the Early Years Foundation Stage through to Year 4, with the opportunity to develop essential digital skills and knowledge that enable them to think computationally, solve problems, and understand how digital systems work. Children are supported to gain a secure understanding of key computing concepts and processes, as well as an appreciation of how computing is used and its impact in the real world. Our computing curriculum is carefully designed to meet the diverse needs of all learners, including those with Special Educational Needs and Disabilities (SEND), within mixed-age classes. Teaching is inclusive and accessible, with learning adapted through appropriate scaffolding, use of assistive technologies, flexible outcomes, and targeted support to ensure all children can participate and succeed. In line with the National Curriculum for Computing our approach is designed to ensure:

- **Computational Thinking:** Children develop problem-solving skills through algorithms, pattern recognition, and logical reasoning, enabling them to approach challenges systematically.
- **Digital Literacy:** Children will gain proficiency in using various digital tools and platforms, fostering their ability to communicate, collaborate and create effectively.
- **Programming Fundamentals:** Through age-appropriate coding activities, children will learn the basics of programming languages, enhancing their understanding of how technology works.
- **Online Safety Awareness:** Children will learn to navigate the internet safely, understanding the importance of privacy, security and respectful online interactions.
- **Data Handling:** Children will explore how to collect, represent, and interpret data, developing skills that are essential for informed decision-making.

We have implemented the Purple Mash Computing Scheme of Work, a well-structured and engaging programme that is carefully planned and sequenced to ensure the progressive development of digital skills and computing knowledge. The Purple Mash mixed-age scheme combines the computing programmes of study from both year groups, enabling children to revisit and build upon key concepts over a two-year cycle. Substantive knowledge (such as digital systems, programming and data) and disciplinary knowledge (such as computational thinking, debugging and logical reasoning) are both progressive in design and thoughtfully interwoven.

Computing Curriculum Overview

	Autumn	Spring	Summer
EYFS Cycle A	Mouse and Trackpad Skills Keyboard Skills Logging In	Drawing Skills Robots	Sounds Photography
	Safety and Privacy Online Safety – Being Safe in a Digital World		
	Privacy and Security	Online Relationships	Online Reputation and Online Bullying
EYFS Cycle B	Mouse and Trackpad Skills Keyboard Skills Logging In	Drawing Skills Technology Around Us	Hardware Quizzes
	Safety and Privacy Online Safety – Being Safe in a Digital World		
	Managing Online Information	Self-Image and Identity	Copyright and Ownership Health, Well-being and Lifestyle
Years 1 and 2 Cycle A	Introduction to PM (1) Creative Computing (1) Creating Pictures (2)	Spreadsheets (2) Animated Stories (1)	Coding (1) Coding (2)
	Online Safety – Being Safe in a Digital World		
	Privacy and Security	Online Relationships	Online Reputation and Online Bullying
Years 1 and 2 Cycle B	Introduction to PM (1) Route Explorers (2) The Internet (2)	Data Explorers (1) Questioning (2) Making Beats (1)	Presenting Ideas (2) Technology Around Us (2)
	Online Safety – Being Safe in a Digital World		
	Managing Online Information	Self-Image and Identity	Copyright and Ownership Health, Well-being and Lifestyle
Years 3 and 4 Cycle A	Email (3) Unpacking Hardware and Software (4) Route Planners (3)	Effective Searching (4) Coding (4)	Presentations (3) Spreadsheets (3)
	Online Safety – Being Safe in a Digital World		
	Privacy and Security	Online Relationships	Online Reputation and Online Bullying
Year 3 and 4 Cycle B	Animation (4) Logo (4) Branching Databases (3)	Sound Stories (4) Coding (3)	Composing Beats (4) Touch Typing (3) Introduction to AI (4)
	Online Safety – Being Safe in a Digital World		
	Managing Online Information	Self-Image and Identity	Copyright and Ownership Health, Well-being and Lifestyle

Year 1

Information Technology Computer Science Digital Literacy

Introduction to Purple Mash 3 Lessons Introduction to Purple Mash Introducing Purple Mash and the essential skills for the year 1 scheme units. - Logging in and out of Purple Mash - Opening and using 2Dos - Saving work in the Work area	Creative Computing 4 Lessons Developing mouse skills and ICT skills using the creative 2DIY tools in Purple Mash. - Making digital art - Making and sharing jigsaws - Making a drag and drop game	Data Explorers 6 Lessons Grouping and sorting objects. Relating this to organising and interpreting data. Using pictorial data on Purple Mash. - Sorting and grouping quizzes - Understanding what data is - Representing data electronically	Creating & Following Instructions 3 Lessons Understanding simple algorithms through unplugged activities before moving to sequencing activities on digital devices. - Following instructions - Creating instructions - Understanding simple algorithms
Animated Stories 6 Lessons Creating and combining digital art and text to produce digital books using the 2Create a Story tool. - Creating digital art and text - Adding animation to images - Adding sound	Coding 6 Lessons Introducing block coding using 2Code. - Using blocks to code - Understanding objects, actions and events - Planning and designing a program	Technology Around Us 4 Lessons Defining and understanding what technology is. Relating this to school, home, outside and to its use in the wider world. - Understanding what technology is - Recognising technology in the local environment and wider world	Making Beats 4 Lessons Introducing the concept of digital music. - Creating sounds using 2Explore - Combining instruments using 2Beat - Composing digital music

Online Safety: To be delivered throughout the year using 2BeSafe

Year 2

Information Technology Computer Science Digital Literacy

Introduction to Purple Mash 2 Lessons An optional introduction to Purple Mash and the essential skills for beginning the year 2 scheme units. Use with classes who haven't used Purple Mash before or who need a refresher in the basics.	Route Explorers 4 Lessons Coding using 2Go. Writing simple instructions to move a screen turtle along routes. - Considering direction and distance - Creating commands - Building an algorithm	The Internet 4 Lessons Understanding what the internet is. - Defining the World Wide Web - Recognising browsers and websites - Connecting to the internet	Creating Pictures 5 Lessons Using a digital art tool to create art in different traditional art styles. - Using 2Paint a Picture templates - Exploring the features of each template - Compiling an online art portfolio - Comparing digital art effects to non digital effects
Spreadsheets 6 Lessons Introducing spreadsheets and the way they organise data using the 2Calculate tool. - Understanding cells and columns - Inserting images with values - Using totalling tools - Creating graphs	Questioning 4 Lessons Investigating data, how it is collected and how it can be presented. - Asking the right question to collect or present data - Keeping a tally - Using 2Count to present the data - Using a branching database	Coding 6 Lessons Developing coding skills using 2Code. - Understanding algorithms - Introducing sequencing - Coding interaction between objects - Using timers - Debugging	Presenting Ideas 4 Lessons Creating mind maps using 2Connect to organise and present ideas. - Using and making mind maps - Using a mind map as a presentation tool
Making Music 3 Lessons Composing digital melodies using 2Sequence. - Understanding a digital music tool - Relating the functions to musical terms - Composing music digitally			

Online Safety: To be delivered throughout the year using 2BeSafe

Year 3

Information Technology Computer Science Digital Literacy

Introduction to Purple Mash 2 Lessons An optional introduction to Purple Mash and the essential skills for beginning the year 3 scheme units. Use with classes who haven't used Purple Mash before or who need a refresher in the basics.	Email 6 Lessons Communicating electronically using 2Email. Considering safety aspects of email communication. - Composing and replying to emails - Opening and sending attachments - Using email safely	Route Planners 5 Lessons Using 2Go to create routes for screen turtles. Coding using angles of turn and repetition. - Writing commands using rotation - Creating algorithms and writing code - Planning routes - Repetition in 2Go	Branching Databases 4 Lessons Creating branching databases (binary tree databases) using 2Question. - Asking binary questions - Completing branching databases in 2Question - Creating and testing branching databases
Spreadsheets 6 Lessons Working with data using spreadsheets in the 2Calculate tool. - Creating graphs - Understanding cell addresses - Using the formula bar - Combining 2Calculate functions to analyse data	Coding 6 Lessons Developing coding skills using 2Code. - Using flowcharts in 2Chart - Using timers - Introducing repetition - Testing and debugging	Presentations 5 Lessons Using industry standard software to create presentations. - Adding media - Customising with animation and timings - Designing an effective presentation	Touch Typing 4 Lessons Developing touch typing skills using 2Type. - Recognising keyboard locations - Understanding correct finger positioning - Improving accuracy and speed
micro:bit 4 Lessons Coding using a micro:bit as an external device. The software includes an emulator for use in schools without micro:bits. - Using the LED display - Sequencing and timing - Understanding inputs and outputs - Adding sounds and gestures			

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Year 4

Information Technology Computer Science Digital Literacy

Introduction to Purple Mash 2 Lessons An optional introduction to Purple Mash and the essential skills for beginning the year 4 scheme units. Use with classes who haven't used Purple Mash before or who need a refresher in the basics.	Unpacking Hardware and Software 4 Lessons Understanding technology and computer systems in relation to their hardware and software. - Defining types of technology - Knowing how systems work together - Identifying hardware - Understanding software	Animation 6 Lessons Creating digital animations using the 2Animate tool. - Knowing the types of animation - Understanding onion skinning - Exploring animation features - Using storyboarding	Logo 4 Lessons Learning the text-based Logo coding language to create patterns and shapes. Coding sequences, repetition, and procedures. - Using Logo commands - Writing commands in a sequence - Refining code using repetition and procedures
Sound Stories 4 Lessons Adding narrative and sound effects to create audio books using 2Cast. - Recording audio content - Creating sound effects - Post-production editing	Effective Searching 4 Lessons Exploring how to effectively search the internet. Exploring safety aspects of online information. - Using a search engine - Search rankings - Reliable searching - Search algorithms	Coding 6 Lessons Developing coding skills using 2Code. - Introducing selection - Exploring design properties - Introducing loops - Coding number variables	Composing Beats 4 Lessons Using the Busy Beats tool to explore and compose music digitally. - Exploring pulse, rhythm and tempo - Understanding pitch and texture - Composing a melody
Introduction to AI 4 Lessons Understanding what artificial intelligence is, how it can help and the ethics around its use. - Exploring how AI works - Investigating the positive and negative impacts of AI - Considering AI in the future	micro:bit 4 Lessons Coding using a micro:bit as an external device. Includes an emulator for schools without micro:bits. - Exploring sensor inputs and the accelerometer - Using variables, inputs and outputs - Coding with selection and loops		

Online Safety: To be delivered throughout the year using 2BeSafe