



Pirbright Village Primary School Progression of Knowledge & Skills in COMPUTING

Subject Intent	To prepare children for future school and employment, embedding knowledge and developing skills to equip them for a changing digital world.	
National Curriculum KS1		National Curriculum KS2
<ul style="list-style-type: none">• Pupils should be taught to understand: what algorithms are, how algorithms are implemented as programs on digital devices & that programs execute by following precise and unambiguous instructions.• Pupils should be taught to create and debug simple programs Pupils should be taught to use logical reasoning to predict the behaviour of simple programs.• Pupils should be taught to use technology purposefully to create, organise, store, manipulate and retrieve digital content.• Pupils should be taught to recognise common uses of information technology beyond school.• Pupils should be taught to: use technology safely and respectfully, keep personal information private & identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.		<ul style="list-style-type: none">• Pupils should be taught to: design, write and debug programs that accomplish specific goals, control or simulate physical systems, solve problems by decomposing them into smaller parts.• Pupils should be taught to: use sequence, selection, and repetition in programs and to work with variables, work with various forms of input and output.• Pupils should be taught to: use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs, understand computer networks including the internet & understand how networks can provide multiple services, such as the world wide web.• Pupils should be taught to: select, use and combine a variety of software (including internet services) on a range of digital devices, design and create a range of programs, systems and content that accomplish given goals & collect, analyse, evaluate and present data and information.• Pupils should be taught to: use search technologies effectively & appreciate how search results are selected and ranked.• Pupils should be taught to: use technology safely, respectfully and responsibly, recognise acceptable/unacceptable behaviour, know a range of ways to report concerns and inappropriate behaviour, be discerning in evaluating digital content & understand the opportunities networks offer for communication and collaboration.

Progression of Skills

EYFS	<ul style="list-style-type: none">• I can give commands/instructions e.g. forward, backwards, go, stop, when using a BeeBot – Coding Caterpillar?• I can make choices about the buttons/icons to press, touch or click on when using simple software/hardware.• I can manage a device by correctly selecting apps and safely turning on and off.• I can take a photograph• I can take a photograph and use it in an app• I can use a painting app and explore the paint and brush tools.• I can scan a QR code.• I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset.• I can explain how this could be either in real life or online
Year 1 & 2	<ul style="list-style-type: none">• I can use a computer mouse pad.• I can switch on and shut down a computer• I can use a keyboard and identify the main keys.• I can start to type simple text.• I can choose a font, size and colour.• I can open an application and switch between different ones• I can save a file• I can drag objects using the mouse pad.• I can identify and practise my computer skills• I know that computers follow instructions called algorithms• I can create a simple program using BeeBot or Discovery Coding and predict what will happen• I can solve problems in a simple program when I debug it
Year 3 & 4	<ul style="list-style-type: none">• I can design, write and debug programs to achieve a simple goal (eg using a coding application)• I can sequence, select and repeat commands in programs by looking at each smaller part• I can explain why some algorithms do (or don't) work• I know computers can be linked on a network (eg the internet)• I can use search technologies effectively (eg Google)• I can select and use appropriate software to accomplish different tasks on a range of devices• I can use technology safely and respectfully• I can type with increasing speed and accuracy, using capital letters and punctuation.• I know what acceptable and unacceptable behaviour online is and the impact it can have• I know how to report any concerns I have
Year 5 & 6	<ul style="list-style-type: none">• I can solve problems in programs by looking at each smaller part• I know that if I use a different input variable then the output variable will change (eg on a spreadsheet)• I can correct errors in a simple algorithm

	<ul style="list-style-type: none"> • I know that networks offer many services and opportunities for communication and collaboration • I understand that I need to evaluate internet search results for validity • I can type with increasing speed and accuracy, using capital letters and punctuation. • I can combine software to accomplish different tasks • I can use technology safely and respectfully • I know what acceptable and unacceptable behaviour online is and the impact it can have • I know how to report any concerns I have
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EYFS		
Digital Literacy	Information Technology	Computer Science
<ul style="list-style-type: none"> • Recognise that technology is used in school and at home and must be handled carefully. • Understand that some information (e.g., their name, address, photos) is private. • Know that they must ask a trusted adult before going online or sharing information. • Demonstrate kind and respectful behaviour when using digital devices. 	<ul style="list-style-type: none"> • I know how to take photos using a tablet or camera. • I know how to draw pictures using simple tools on a computer. • I know how to use keys and buttons to make things happen on screen. 	<ul style="list-style-type: none"> • I know how to give instructions to robots to make them move. • I know how to press buttons or icons to make technology work. • I know how to follow steps in order to complete a simple task.

EYFS Purple Mash curriculum is designed to fit into the day to day, rather than encourage children to use specific tools.

Year 1		
Digital Literacy	Information Technology	Computer Science
<ul style="list-style-type: none"> • Identify personal information and explain why it should not be shared online. • Recognise when something online makes them feel uncomfortable and know who to tell. • Follow agreed rules for safe use of Purple Mash and other online tools. • Demonstrate respectful and kind behaviour in digital interactions. 	<ul style="list-style-type: none"> • I know how to open, save, and close digital work using a laptop. • I know how to use software like Word and 2Create to add text and images. • I know how to make and read simple pictograms to show information. 	<ul style="list-style-type: none"> • I know how to give simple instructions to make things happen on screen. • I know how to use blocks to make characters move or speak in a program. • I know how to start, stop, and reset a program.

In year 1, Purple Mash is still designed to fit into the day to day, but specific tools are also used.

2BeSafe Avatar creator Paint projects Writing templates 2Count 2Explore	2BeSafe Avatar creator Paint projects Writing templates 2Count 2Explore	2BeSafe 2Code
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	2Create a story	

Year 2		
Digital Literacy	Information Technology	Computer Science
<ul style="list-style-type: none"> Use simple keywords to search safely and identify suitable websites. Understand that not everything online is true. Recognise appropriate and inappropriate online behaviour. Explain how to report concerns to a trusted adult. 	<ul style="list-style-type: none"> I know how to make a presentation using text, images, and sounds. I know how to organise and compare data using spreadsheets and databases. I know how to choose the best way to present my ideas on the computer. 	<ul style="list-style-type: none"> I know how to create a simple program using sequences of instructions. I know how to use loops and conditions to make my program do more. I know how to find and fix problems (debug) in my code.
2BeSafe Writing templates Displayboards 2Respond 2Quiz	2BeSafe 2Calculate 2Question (binary databases) 2Investigate 2Connect 2Create a story 2Quiz Writing templates	2BeSafe 2Code
Year 3		
Digital Literacy	Information Technology	Computer Science
<ul style="list-style-type: none"> Create strong passwords and explain why they protect personal data. Understand what a digital footprint is and how online actions leave a record. Recognise different online risks (e.g., cyberbullying, unsafe communication). Use reporting tools appropriately to respond to online concerns. 	<ul style="list-style-type: none"> I know how to collect and analyse data in a spreadsheet. I know how to improve my typing speed and accuracy using touch typing skills. I know how to create and design simple 3D models using CAD tools. 	<ul style="list-style-type: none"> I know how to create programs that use inputs, timers, and variables. I know how to predict what my code will do and explain how it works. I know how to create simple interactive programs using Microbits.
2BeSafe 2Connect 2Blog	2BeSafe 2Type 2Calculate	2BeSafe 2Code Free code micro:bit

Writing templates Displayboards		
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Year 4

Digital Literacy	Information Technology	Computer Science
<ul style="list-style-type: none"> • I know how to spot fake or misleading content online. • I know why it's important to think before I share. • I know how to use search engines more effectively and responsibly. 	<ul style="list-style-type: none"> • I know how to make animations using multiple frames and effects. • I know how to search for and gather information safely and effectively. • I know what artificial intelligence is and where we see it in real life. 	<ul style="list-style-type: none"> • I know how to create programs that use functions and nested loops. • I know how to break big problems into smaller steps using algorithms. • I know how to use code to control Microbits for real-world tasks.
2BeSafe 2Connect 2Publish plus Displayboards	2BeSafe 2Quiz 2Connect 2Animate Writing templates	2BeSafe 2Code Free code micro:bit

Year 5

Digital Literacy	Information Technology	Computer Science
<ul style="list-style-type: none"> • Explain how online identity is formed and managed. • Use privacy settings to protect personal information. • Evaluate the reliability and bias of online content. • Apply strategies to respond appropriately to online risks. 	<ul style="list-style-type: none"> • I know how to use 3D modelling software to design realistic objects. • I know how to use spreadsheets and databases to solve problems and analyse data. • I know how to collect and display sensor data using Microbits. 	<ul style="list-style-type: none"> • I know how to design and build systems using inputs, outputs, and conditions. • I know how to combine logic and variables to create interactive programs. • I know how to use Microbits to collect data and make things happen.
2BeSafe Publish plus Writing templates Displayboards 2Connect	2BeSafe 2Design and make Writing templates 2Calculate 2Investigate Avatar creator	2BeSafe 2Code Free code micro:bit

Year 6

Digital Literacy	Information Technology	Computer Science
<ul style="list-style-type: none"> Analyse how digital activity affects wellbeing and apply strategies to manage screen time. Understand legal and ethical responsibilities when using social media and online platforms. Create and publish online content responsibly (e.g., blogging). Critically evaluate online information considering credibility, bias and purpose. 	<ul style="list-style-type: none"> I know how to use Excel to organise and analyse data using advanced tools. I know how to create and publish blog posts responsibly. I know how to choose appropriate software to present work clearly and professionally. 	<ul style="list-style-type: none"> I know how to build and refine advanced programs using functions and multiple variables. I know how to create branching stories and games using text-based logic. I know how to test, evaluate, and improve my coding projects.
2BeSafe 2DIY 3D 2Code 2Blog	2BeSafe MS Excel	2BeSafe 2Code 2Connect Writing templates