Computing Year 3

Unit of work	Typing and Online Safety	Multimedia Presentations	What's Inside Your Computer	Input and Output	Programming Sequences
Link to Programme of study	**Digital Literacy – inc. online safety**	**Digital Literacy – inc. online safety**	**Computers, networks and the WWW**	**Computer Science**	**Computer Science**
Composite knowledge	Can use a range of digital devices and peripherals confidently Understand the importance of communicating safely and respectfully online and the need to keep personal information safe Know what to do when concerned about contact online	Use a variety of software Work across tabs / windows Evaluate their work and develop it further Use software programs as a way of sharing their knowledge How to save and retrieve work between lessons	Recognise that a range of digital devices can be considered a computer Recognise and understand the function of the main internal parts of basic computer architecture Know that digital computers use binary to represent all data	Recognise that computers can make use of a range of input and output devices Understand that computers are machines that only follow instructions Have experience of writing and testing simple programs	Use and recognise sequence in programs Recognise patterns in sequences and use repeat loops Recognise uses of technology in a range of different careers Use logical reasoning to explain how simple algorithms work Design, write, test and debug simple programs
Intentional knowledge they need to understand (Component knowledge)	Selecting and remembering a password between lessons Logging into a desktop computer Mouse and keyboard skills – including finding the keys on the keyboard and double clicking on the mouse to open programs	How to open saved files from their Office 365 account How to split the screen between two apps How to add, alter and edit text in PowerPoint How to add images to a PowerPoint file How to present their work using PowerPoint	All digital devices function the same way: input, process, output Can recognise what devices may be considered computers That the CPU does the processing inside a computer	Recognise that all digital devices function the same way: input, process, output Recognise how inputs and outputs are processed by a computer Recognise that computers are programmed to behave they away they do Use a block based coding language to write simple programs	Use the code blocks in Scratch to make things happen Arrange the code blocks in sequence to create a given outcome Recognise and use repeat loops around the repeated part of a sequence Experiment with the different code blocks available Use learning to design and program a solution to a given problem

	How to respond to different situations when online Who to discuss concerns with		Files are saved on the Hard Drive RAM holds the current files in temporary memory Computers can do nothing without instructions Recognise Binary as the language computers work in and know that this is 1's and 0s.	Design, create, build and test digital artefacts	
National Curriculum KS2 (skills)	**Key stage 2** **Pupils should be taught to:** • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • 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; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. • use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.				
Vocabulary	Password Microsoft 365 Online Safety Be SMART	Office 365 PowerPoint Insert Image Transitions	CPU Hard Drive Files RAM Motherboard Network	Files Scratch Code Input Output Process Makey Makey	Code Programming Algorithm Sequence Order Repeat loop Scratch
Links to prior knowledge	Online safety and personal information Year 1 and 2	Using PowerPoint in Year 1 and 2	Year 1 – computers are not clever and only follow instructions	What's inside your computer Year 3	Introducing Algorithms Year 1 Algorithms to programs Year 1 Programming Probots Year 2

		Typing skills in previous topic			Input and Output Year 3
Key knowledge for assessment	Can remember their username and password and login to the ICT suite computers Can open and close specific web based activities Is developing an awareness of where the keys are on the keyboard Understands what information should be kept private, who to speak to if concerned and how to behave responsibly online	Can save and retrieve work between lessons Can create a presentation including a range of different media to share knowledge Has used a range of different tools available within the program	Computers are programmed devices – they are not clever they just follow instructions Can recall the key components of a computer and their role Recognise that computers store data in Binary format Begin to explain a network as connected computers	Recognise a range of input and output devices Recognise computers are just programmed machines plan, write and test a program in Scratch Designed, built and tested a musical instrument using the Makey Makey	Can write a program that runs in sequence Can write a program including a Repeat loop Recognises that what they are doing is programming and can suggest a career that might involve programming Can predict the outcome of running a simple program
Cross Curricular Links				Design and Technology Science	
Oracy & Outdoor Learning Links				Explaining designs and sharing their finished musical instruments	