



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

	<p>How to respond to different situations when online</p> <p>Who to discuss concerns with</p>		<p>Files are saved on the Hard Drive</p> <p>RAM holds the current files in temporary memory</p> <p>Computers can do nothing without instructions</p> <p>Recognise Binary as the language computers work in and know that this is 1's and 0s.</p> <p>The internet is made up of joined up computer networks</p>	Design, create, build and test digital artefacts	
National Curriculum KS2 (skills)	<p><b>Key stage 2</b></p> <p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li> <li>use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</li> <li>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> <li>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.</li> <li>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</li> <li>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.</li> <li>use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li> </ul>				
Vocabulary	<p>Keyboard, Touch typing, Password, Program, Online Safety</p> <p><b>SMART:</b> Safe Accepting Reliable Tell</p>	<p>Office 365, PowerPoint, Insert, Images, Text, Animation, Transitions</p>	<p>CPU, Hard Drive, Files, RAM, Motherboard, Input, Output, Process, Network, Internet</p>	<p>Files, CPU, RAM, Scratch, Code, Input, Output, Process, Makey Makey</p>	<p>Code, Programming, Algorithm, Sequence, Order, Repeat loop, Scratch, Sprite, Debugging,</p>
Links to prior knowledge	<p>Online safety and personal information Year 1 and 2</p>	<p>Using PowerPoint in Year 1 and 2</p>	<p>Year 1 – computers are not clever and only follow instructions</p>	<p>What's inside your computer Year 3</p>	<p>Introducing Algorithms Year 1 Algorithms to programs Year 1 Programming Probots Year 2</p>

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