

Progression of Skills and Knowledge: Computing

	<u>Reception</u> By the end of Reception pupils will have had the opportunity to...	<u>Year 1</u> By the end of Year 1 pupils will have had the opportunity to...	<u>Year 2</u> By the end of Year 2 pupils will have had the opportunity to...	<u>Year 3</u> By the end of Year 3 pupils will have had the opportunity to...	<u>Year 4</u> By the end of Year 4 pupils will have had the opportunity to...	<u>Year 5</u> By the end of Year 5 pupils will have had the opportunity to...	<u>Year 6</u> By the end of Year 6 pupils will have had the opportunity to...
Using technology	<p>Use a simple program on the computer/tablet</p> <p>Use a range of hardware and software, camera, board, tablet, computer, bee bot, code a pillar</p> <p>Select and use technology for a purpose, ie, a camera for a photo, a toaster for toast, a fridge for cooling</p>	<p>Develop skills in using different tools to control technology.</p> <p>Begin to use and understand the purpose of a range of different technology.</p> <p>Begin to develop typing skills, to enable independent access to computers.</p>	<p>To continue to develop typing skills, speed and accuracy to enable independent and efficient access to a computer. Begin accessing own profile.</p> <p>To understand the purpose of, and begin to independently use a range of different technology. Research online in small groups</p>	<p>Continue to develop typing skills to develop competency in digitalizing written work including Capital letters, full stops and commas.</p> <p>Understand the purpose of a range of different technology.</p> <p>Independently use a range of technology</p> <p>Make decisions for themselves about when to use technology, explaining own choices.</p>	<p>Continue to develop typing skills to develop competency in digitalizing written work, including Capital letters, full stops and commas, question marks and exclamation marks.</p> <p>Understand the purpose of a range of different technology.</p> <p>Independently use a range of technology</p> <p>Make decisions for themselves about when to use technology,</p>	<p>Continue to develop typing skills to develop competency in digitalizing written work including punctuation related to SPAG work.</p> <p>Understand the purpose of a range of different technology, identify when data bases, spread sheets and presentation software is most appropriately used.</p> <p>Independently use a range of technology</p> <p>Make decisions for themselves about when to use technology, explaining own choices and its effect</p>	<p>Continue to develop typing skills to develop competency in digitalizing written work, including punctuation related to SPAG work..</p> <p>Understand the purpose of a range of different technology. Identify when data bases, spread sheets, image, audio and presentation software is most appropriately used.</p> <p>Independently use a range of technology</p> <p>Make decisions for themselves about when to use technology to improve their work explaining own</p>

				Decide upon which piece(s) of technology to use, which software/tools to use on the technology and be able to explain own choices to others with simple reason	explaining own choices. Decide upon which piece(s) of technology to use, which software/tools to use on the technology and be able to explain own choices to others, with good reasoning	and how it enhances outcome. Decide upon which piece(s) of technology to use, which software/tools to use on the technology and be able to explain own choices to others with valid and accurate reasons.	choices about its effect, enhancement on the end product, and edit to improve further Decide upon which piece(s) of technology to use, which software/tools to use on the technology and be able to explain own choices to others and how enhancements have been made Use software to analyse and present data to a group accurately
Digital literacy	Begin to develop understanding of safety online through discussions when accessing technology	Understand the importance of keeping personal information safe private Use all technology safely	Develop understanding of how technology is used in and out of school Use technology respectfully and with caution Know where to go for help if they are concerned	Identify where technology is best used and where it adds little or no value Understand there are different ways they can get help if they are concerned Understand what computer networks do and	Recognize acceptable and unacceptable behavior using technology Understand the use of search engines and think about the terms used to search carefully	Understand that you have to make choices when using technology and that everything is not always true or safe Understand the use of search engines and how results are ranked	Discuss the risks of online use of technology Identify how to minimise risks of using technology Identify personal information suitable and not suitable to give-giving reasons and explanations

				how they provide services Respectfully and responsibly use technology			Identify and understand a range of ways to report concerns Evaluate Digital content from search engines and talk about ranking order and appropriateness of searches
Information Technology	Understand information can be retrieved from computers, ie, find a picture or information on the internet with support	Create digital content with support Store digital content Retrieve digital content with support Use a camera purposefully Use a website to find information	Use and Navigate the internet to complete searches and find information in small groups Begin to organise digital content in appropriate ways Retrieve and manipulate digital content	Collect information Design and create content Manipulate and improve digital images Present information Search for information on the internet Use a range of software for similar purposes	Collect and present data Produce and upload visual and audio content Select and use software to accomplish given goals	Look at and analyse information Edit and use images and film for a purpose Evaluate information	Select, use and combine software on a range of digital devices Use a range of technology for a specific project combining skills and content
Algorithms and programming	Use a programmable robot to direct. Explore the use of the directional	Create a series of instructions with two or more steps	Understand an algorithm is a simple set of instructions To understand when we press keys on a	Design a sequence of instructions, including directional instructions	Debug a programme, finding more than two faults	Combine sequences of instructions and procedures to have a planned effect/output	Design a solution by breaking a problem up Explain how an algorithm works

	<p>buttons and what they do</p>	<p>Plan a journey for a programmable robot including turn</p> <p>Discuss the journey and if the instructions were precise enough</p>	<p>computer, button on a camera or icon on a tablet it uses precise instructions to achieve the outcome</p> <p>Write a simple program with four or more steps including turns and direction</p> <p>Find errors and amend instructions given to achieve a desired outcome(debug)</p> <p>Predict what the outcome of a simple program will be (ie, where a robot will end) (logical reasoning)</p> <p>Understand that programs require precise instructions to work accurately</p>	<p>Work with various forms of input (putting information into the computer system, camera's images, text, data, video's)</p> <p>Work with various forms of output (what the computer sends out, ie, images on screen, printing, sound,)</p> <p>Write programmes that accomplish specific goals. Begin to access scratch as a class</p>	<p>Experiment with variables to control models in Scratch.</p> <p>Give an on screen robot specific instructions that takes them from A-B</p> <p>Accurately predict and explain why they think something will happen</p>	<p>Design algorithms that use repetition and two way selection</p> <p>Use technology to control an external device</p>	<p>Explore what if? Questions by planning different scenarios for controlled devices</p> <p>Use logical reasoning to detect errors in algorithms</p> <p>Use selection in programmes and develop independent programming in scratch</p> <p>Work with variables</p> <p>Recognise that different solutions can exist for the same problem</p>