

Aim High Step Descriptors		Key Stage 3 IT and Computing		
		A	B	C
		Knowledge	Understanding	Skills
Working Towards Year 7 expectations.	Step 1	Can describe uses of the technology around us. Knows how to create a logical sequence of steps to do something. Basic knowledge of how the internet functions, the risks of being online and knows some methods that can be used to protect yourself.	Understands how to use IT to solve design problems. Understands that a basic program is a sequence of steps the computer follows. Emerging understanding of how to use technology safely, respectfully, responsibly and securely.	Can code a set of instructions for software to perform a task. Can also build an interactive digital artefact such as a website to perform a specific action.
Working at the Expected Standard and are meeting the criteria as described by the curriculum area for Year 7.	Step 2	I can design solutions (algorithms) that use repetition and two-way selection i.e. if, then and else. I know the difference between the internet and internet service e.g. world wide web.	I know that computers collect data from various input devices, including sensors and application software.	I can make appropriate improvements to solutions based on feedback received, and can comment on the success of the solution.
Working Above the expectations for Year 7 and at a greater depth. Working towards Year 8 expectations.	Step 3	I can use post-tested loops e.g. 'until', and a sequence of selection statements in programs, including the use of if...then... else statement.	I can use logical reasoning to predict outputs, showing an awareness of inputs. I can design, write and debug modular programs using procedures.	I can make judgements about digital content when evaluating and repurposing it for a given audience.
Working at the Expected Standard and are meeting the criteria as described by the curriculum area for Year 8.	Step 4	I can show an awareness of tasks best completed by humans or computers.	I know how to effectively use search engines, and I know how search results are selected, including that search engines use 'web crawler programs'.	I can use criteria to evaluate the quality of solutions and can identify improvements making some refinements to the solution, and future solutions. I know the audience when I am designing and creating digital content.
Working Above the expectations for Year 8 and at greater depth. Working towards Year 9 expectations.	Step 5	I can design solutions by decomposing a problem and creates a sub-solution for each of these parts (decomposition). I know that different solutions exist for the same problem.	I can use variable and relational operators within a loop to govern termination. I can design, write and debug modular programs using procedures. I can analyse and evaluate data and information. I know that poor quality data leads to unreliable results, and inaccurate conclusions.	I know the difference between, and appropriately I can use if and if, then and else statements. I can select and combine a range of internet services such as searching for specific information and check source validity. I can show responsible use of technologies and online services, and I know a range of ways to report concerns. I can use criteria to evaluate the quality of solutions and can identify improvements making some refinements to the solution, and future solutions.
Working at the Expected Standard and are meeting the criteria as described by the curriculum area for Year 9.	Step 6	I know that the design of an algorithm is distinct from its expression in a programming language (which will depend on the programming constructs available). I know where information can be filtered out in generalising problem solutions (abstraction).	I know the difference between, and I can use, both pre-tested e.g. 'while', and post-tested e.g. 'until' loops. I can apply a modular approach to error detection and correction.	I can undertake creative projects that collect, analyse, and evaluate data to meet the needs of a known user group. I consider the properties of media when importing them into digital artifacts. I can explain and justify how the use of technology impacts on society, from the perspective of social, economical, political legal, ethical and moral issues.
Working Above the expectations for Year 9 and at a greater depth.	Step 7	I can design a solution to a problem that depends on solutions to smaller instances of the same problem (recursion). I know that some problems cannot be solved computationally.	I can design and write nested modular programs that enforce reusability utilising sub-routines wherever possible. I know the difference between 'While' loop and 'For' loop, which I can use a loop counter.	I know the hardware associated with networking computer systems, including WANs and LANs, I know their purpose and how they work, including MAC addresses. I know the ethical issues surrounding the application of information technology, an existence of legal frameworks governing its use e.g. Data Protection Act, Computer Misuse Copyright etc