One Page Progression Profile
Subject: Computing

Key Area	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science	Complete a simple program on a computer. Use hardware to interact with an age-appropriate computer software. Know the cause and effect of buttons and switches. Explain how things work. Know sensible amounts of 'screen time'.	Know that an algorithm written for a computer is called a program and is a set of instructions used to solve a problem or achieve an objective. Know what is wrong with a simple algorithm when the steps are out of order, write own simple algorithm and make logical attempts to fix code. When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program.	When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code. Children can create a simple program that achieves a specific purpose. They can also identify and correct some errors. Program designs display a growing awareness of the need for logical, programmable steps. Children can identify the parts of a program that respond to specific events and initiate specific actions.	Create an algorithm for a program by deconstructing it into manageable parts, identify errors and be able to fix them. Be able to design and code a program in logical, achievable steps that follows a simple sequence and use timers achieve repetition effects (knowing the difference between a timer command and a repeat command). Know how variables can be used to store information while a program is executing. Know a range of ways that the internet can be used to provide different methods of communication and describe appropriate email conventions.	Make more intuitive attempts to debug their own programs, use timers, trace code and use step through methods to identify errors and read programmes; predicting outcomes accurately. Understand 'if statements' for selection and attempt to combine these with other coding structures; knowing how to use and manipulate the value of variables. Know how to make use of user inputs and outputs such as 'print to screen'. Know the main component parts of hardware which allow computers to join and form a network. Know implications associated with the ways the internet can be used.	Test and debug own programs, use logical methods to identify the approximate cause of any bug, translate algorithms that include sequence, selection and repetition into code. Know how to combine sequence, selection and repetition with other coding structures. Able to use tabs to organise code and the naming of variables. Know the value of computer networks and the main dangers. Know what personal information is and can explain how this can be kept safe and select the most appropriate form of online communications.	Able to turn a more complex programming task into an algorithm and be able to decompose them in a logical way and put the separate parts of a complex algorithm together to explain the program as a whole. Use logical methods and a systematic approach to identify the cause of bugs. Know variables in coding, outputs such as sound and movement, inputs from the user of the program such as button clicks and the value of functions. Know the difference between the internet and the World Wide Web, what a WAN and LAN are and how they access the Internet in school.

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Information Technology	Use a range of media in their own story. Try new activities, saying why they like some activities more than others. Speak in a familiar group, talk about ideas, and resources needed for chosen activities.	Know how to sort, collate, edit and store simple digital content.	Know how to organise data and retrieve specific data for conducting simple searches. Know how to edit more complex digital data. Know how to create, name, save and retrieve content. Use a range of media in their digital content including photos, text and sound.	Know how to carry out simple searches to retrieve digital content. Know how to collect, analyse, evaluate and present data and information. Consider what software is most appropriate for a given task. Create purposeful content to attach to emails.	Know the function, features and layout of a search engine, appraising webpages for credibility and information. Know how to make improvements to digital solutions. Make informed software choices when presenting information and data. Share digital content within the community.	Know how to search for digital content and how credible a webpage is and the information it contains. Confidently comment on the success of solutions. Collaboratively create content and solutions using digital features within software and know several ways of sharing digital content	Apply filters when searching for digital content, rating it in terms of content quality and accuracy. Design and create own blogs and digital content, making clear connections to the audience and using critical thinking skills. Evaluate the quality of digital solutions and identify improvements.
Digital Literacy	Know how to keep safe when using the internet. Know when they do or don't need help.	Know what is meant by technology and can identify a variety of examples. Make a distinction between objects that use modern technology and those that do not. Know the importance of keeping information private and how to save work in own private space,	Know how to retrieve relevant, purposeful digital content using search engines and the implications of inappropriate online searches, making links between technology, coding and multimedia work. Begin to understand how things are shared electronically, how to use email safely and ways of reporting inappropriate behaviours and content.	Know the importance of having a secure password and not sharing this with anyone else and the negative implications of failure to do so. Know the importance of staying safe and conduct when using familiar communication tools Know ways to report unacceptable content and contact.	Explore key concepts relating to online safety using concept mapping. Help others to understand the importance of online safety. Know ways of reporting inappropriate content and contact.	Know common online safety rules safely and respectfully use different technologies and online services. Implicitly relate appropriate online behaviour to the right to personal privacy and mental wellbeing.	Know the safe and respectful use of different technologies and online services. Identify more discreet inappropriate behaviours through developing critical thinking. Know the value in preserving privacy when online for safety.