

## Everton Primary School – Computing Progression Document by Year Group

### Computer Science

Key Area	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Computer Science</b>	<p>Know that buttons cause effects.</p> <p>Know how to physically follow instructions.</p> <p>Know how to give others instructions to move around.</p> <p>Know electronic devices can move by inputting instructions.</p> <p>Know how to input a simple set of instructions into a beebot to achieve a given outcome.</p>	<p>Know that an algorithm is a set of instructions to complete a task.</p> <p>Know that an algorithm written for a computer is called a program.</p> <p>Place instructions into the correct order (sequence) to make something work</p> <p>Know how to write a simple algorithm to achieve a specific purpose,</p>	<p>Know that an algorithm is a set of instructions used to solve a problem or achieve an objective.</p> <p>Know how to create an algorithm for a specific purpose.</p> <p>Know when designing code they need to be precise with the algorithms so that it can be successfully converted into code.</p>	<p>Know loops repeat/forever to achieve solutions to tasks</p> <p>Know how to design and code a program that follows a simple sequence using repeat and timers to accomplish specific goals.</p> <p>Know how to test and improve/debug programmed sequences</p> <p>Know there are different ways to solve a problem.</p>	<p>Know selection (if else) blocks give different outcomes.</p> <p>Know how to design and use an algorithm to sequence and order more complex programming with 'if'.</p> <p>Know what a variable is and use variables in a program</p> <p>Know more complex code can be read and explain what is happening.</p> <p>Know errors in code can be</p>	<p>Know simplified code can be used to make their programming more efficient.</p> <p>Know use their plan to program the simulation to work.</p> <p>Know a task can be broke down into smaller achievable steps.</p> <p>Know the need to start coding at a basic level of abstraction to remove superfluous details from</p>	<p>Know a program can be created that uses multiple functions .</p> <p>Know how their code executes when their program is run.</p> <p>Know flowcharts can be followed to create and debug code.</p> <p>Know that programs can be coded that take text input from the user and use this in the program.</p> <p>Children can attribute</p>

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		<p>Know what is wrong with a simple algorithm when the steps are out of order (bug), e.g. The Wrong Sandwich</p> <p>Know instructions can be changed to fix a problem (debug),</p> <p>Know how to create a simple program using event, object and action blocks.</p> <p>Know to read code one line at a time. Know what might happen in a simple program.</p>	<p>Know how to create a simple program that achieves a specific purpose.</p> <p>Know how to identify and correct errors and explain what has been done</p> <p>Know designs need to be in logical, programmable steps.</p>	<p>Know how specific algorithms work (reading flowcharts), and predict outcomes.</p>	<p>identified by going through each step and make logical attempts to correct this.</p> <p>Know how to program a loop and shapes in logo.</p> <p>Know how to use co-ordinates and repeat command in logo.</p>	<p>their program that do not</p> <p>contribute to the aim of the task.</p> <p>Know a program can be created to represent a physical system.</p> <p>Know functions can be created and used in code to make programming more efficient.</p>	<p>variables to user input.</p> <p>Know the need to code for all possibilities when using user input.</p> <p>Know what binary is.</p> <p>Know numbers can be converted to binary.</p>
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### Information Technology

Key Area	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Information Technology	<p>Know how to use a simple online paint tool to create digital art.</p> <p>Know what a keyboard is and begin to locate letters.</p> <p>Know what a mouse is and use it to move and click.</p>	<p>Know how to control the mouse by dragging, clicking and resizing.</p> <p>Know basic keys on a keyboard and begin touch typing.</p> <p>Know work can be saved and retrieved later.</p> <p>Know different tools make different effects in art programs.</p> <p>Know images can be added, resized and moved.</p>	<p>Know text can be altered.</p> <p>Know text can be resized and changed.</p> <p>Know how to create, name, save and retrieve work.</p> <p>Know that folders are used to organise files on a computer.</p> <p>Know software can be used to create story animations.</p> <p>Know data can be organized on an online database,</p>	<p>Know text and images can be copied and pasted</p> <p>Know words can be replaced (spell check/thesaurus).</p> <p>Know bullet points can be used in lists.</p> <p>Know 3D models can be created on a computer.</p> <p>Know and use a branching database.</p> <p>Know what an infographic is and why they are used.</p> <p>Know more complex music can be created.</p>	<p>Know animations can be created by adding music, sounds and text with transitions e.g. stop motion.</p> <p>Know more complex 3D models can be created on a computer</p> <p>Know videos can be edited by adding music, sounds and text with transitions e.g. imovie and exported.</p> <p>Know what an ebook is and how to create one.</p>	<p>Know what a database is, how to search a database and create own databases.</p> <p>Know formulas can be used in spreadsheets.</p> <p>Know word processing documents can be used for different purposes and manipulated and edited accordingly.</p> <p>Know music can be layered with sounds and effects.</p>	<p>Know websites can be created.</p> <p>Know photos/screenshot s can be edited.</p> <p>Know digital spreadsheets can be used to problem solve in the 'real world'.</p>

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		<p>Know images and text can be used together.</p> <p>Know words can be typed and use capital letter and simple punctuation keys</p> <p>Know music can be made on a computer using patterns.</p> <p>Know how to take photographs. Know computers can be used to design.</p>	<p>retrieved and interpreted.</p> <p>Know digital data can be used to compose music.</p> <p>Know information can be presented digitally in different ways.</p> <p>Know more complex art can be created using fill, lines, shapes and colours</p>	<p>Know digital devices can be used to record.</p> <p>Know a range of media can be used together in digital content including photos, text and sound.</p> <p>Know images and text can be used together to create a storyboards and comics digitally.</p>	<p>Know about, create and use a digital spreadsheet and create graphs using these.</p> <p>Know digital music can be changed using rhythm, pitch and melody.</p>		
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### Digital Literacy

Key Area	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Digital Literacy	<p>Know that technology is used in a range of places.</p>	<p>Know what personal information is and why we need to keep personal information private.</p> <p>Know when and where to go for help when concerned.</p> <p>Know what technology is.</p> <p>Know the types of technology in school.</p>	<p>Know what makes a computer a computer.</p> <p>Know computers store and follow instructions.</p> <p>Know how different technology helps us.</p> <p>Know the dangers of sharing photos online.</p> <p>Know people online are not always who they say they are.</p> <p>Know not all information online is true.</p>	<p>Know what to do if something upsets you online.</p> <p>Know why and how people can be nasty online.</p> <p>Know the term 'sharing online' and why we need to get permission to share photos and videos of other people.</p> <p>Know why people pretend to be someone else online.</p> <p>Know why we only talk to people we know in the real world, when online.</p>	<p>Know how to use search technologies to find specific pieces of information.</p> <p>Know the features of an Internet Browser.</p> <p>Know that when information is taken from the internet the source should be referenced (plagiarism).</p> <p>Know that digital content needs to be evaluated.</p> <p>Know that information on the internet</p>	<p>Know what computer networks, Internet and the Cloud are and how they help us.</p> <p>Know how to use email safely.</p> <p>Know why we collaborate online.</p> <p>Know the SMART rules.</p> <p>Know the importance of what we share online and how this can be manipulated.</p> <p>Know the advantages and disadvantages of different</p>	<p>Know what they share, impacts upon themselves and upon others in the long-term.</p> <p>Know about the consequences of promoting inappropriate content online and how to put a stop to such behaviour when they experience it or witness it as a bystander.</p> <p>Know reasons for limiting screen time.</p> <p>Know the positives and negative aspects of technology and balance</p>

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			<p>Know the importance of being responsible when online.</p> <p>Know a webpage displays information in different ways: text, images, videos and interactive elements.</p> <p>Know the internet can be used to find answers to questions.</p>	<p>Know why we should not always trust what we read online and how to check reliability.</p> <p>Know the importance of being kind in the real world and online.</p> <p>Know the importance of using avatars and how to make them.</p> <p>Know what makes a good password.</p> <p>Know the ways the internet helps us to communicate.</p> <p>Know the importance of playing age</p>	<p>needs cross-referencing.</p> <p>Know that memory is measured in bytes and gigabytes.</p> <p>Know that search filters can be used on websites to find suitable information.</p> <p>Know what 'phishing' means.</p> <p>Know what 'malware' and 'viruses' are and what they can do.</p> <p>Know the importance of having a balance between digital and active activities.</p>	<p>forms of online communication.</p> <p>Know key words can be used to increase search reliability.</p> <p>Know how to report something they have seen online including via the platform.</p>	<p>these opposing views.</p> <p>Know the difference between the world wide web and the internet.</p>
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				Know what an email is.			