



# Progression of Skills for Computing

Year	Autumn	Spring	Summer
Lower school cycle B	Stone Age to Iron Age (Iron Rocks!)	Mountains, rivers and coasts. (Mountain High... River Deep)	The Egyptians (Tomb Raiders)
E-Safety	<ul style="list-style-type: none"> <li>I know the importance of communicating safely and respectfully online, and the need for keeping personal information private.</li> <li>I can find content from the world wide web using a suitable web browser.</li> </ul> <p style="text-align: center;"><i>Repeated and developed throughout the year through Computing lessons and PDL</i></p>		
Computer Science	<ul style="list-style-type: none"> <li>I can create and implement a simple algorithm on digital devices as programs.</li> <li>I can design simple algorithms using loops, i.e. repeat x times or forever</li> <li>I can break simple everyday algorithms in to parts (i.e. breakfast, walk to school)</li> <li>I can find and correct (debug) simple sequence errors in code</li> </ul>	<ul style="list-style-type: none"> <li>I can create and implement a simple algorithm on digital devices as programs.</li> <li>I can create multiple sequences running at the same time i.e. playing two different instrument sounds or two sprites moving</li> <li>I can find and correct (debug) simple sequence errors in code</li> </ul>	<ul style="list-style-type: none"> <li>I know that a range of digital devices can be considered a computer.</li> <li>I know how programs specify the function of a general purpose computer.</li> </ul>
Digital Literacy	<ul style="list-style-type: none"> <li>I can use software under the control of the teacher to create, store and edit digital content using appropriate file and folder names</li> <li>I can talk about my work and make changes to improve it.</li> </ul>	<ul style="list-style-type: none"> <li>I know the difference between some of these digital forms and can explain the different ways that they communicate information.</li> <li>I know different types of data: text, number</li> <li>I know that data can be structured in tables to make it useful.</li> </ul>	<ul style="list-style-type: none"> <li>I can use software with support to create, store and edit digital content using appropriate file/folder names</li> <li>I can use technology to purposefully organise digital content.</li> <li>I can talk about my work and make changes to improve it.</li> </ul>



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Lower school cycle A	What did the Romans do for us? (Rotten Romans)	Natural Disasters and Rainforests (What a disaster!)	Saxons and Vikings (Kingdom Invasion)
<b>E-Safety</b>	<ul style="list-style-type: none"> <li>I can navigate the web and can carry out simple web searches to collect digital content.</li> <li>I can show use of computers safely and responsibly, knowing a range of ways to report unacceptable content and contact when online.</li> </ul> <p style="text-align: center;"><i>Repeated and developed throughout the year through Computing lessons and PDL</i></p>		
<b>Computer Science</b>	<ul style="list-style-type: none"> <li>I can design and implement simple algorithms using single arithmetic operators and selection within programs.</li> <li>I can include a single variable to hold a number or word in my algorithm</li> <li>I can use logical reasoning to predict outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>I can design and implement simple algorithms using repeat/forever loops and selection within programs</li> <li>I can find and correct (debug) simple repetition, selection and variable errors in code with support.</li> <li>I can use logical reasoning to predict outcomes.</li> <li>I know and can use a range of input and output devices.</li> <li>I know that computers collect data from various input devices, including sensors and application software.</li> </ul>	<ul style="list-style-type: none"> <li>I can decompose a working programming into its elements with support</li> <li>I can design and implement simple algorithms using single arithmetic operators, repeat/forever loops, and selection within programs.</li> <li>I can find and correct (debug) simple repetition, selection and variable errors in code with support</li> </ul>
<b>Digital Literacy</b>	<ul style="list-style-type: none"> <li>I can use a variety of software to manipulate and present digital content: and information.</li> <li>I can talk about my work and make improvements to solutions based on feedback received</li> </ul>	<ul style="list-style-type: none"> <li>I know that programs can work with different types of data</li> <li>I know that data can be structured in tables to make it useful.</li> <li>I know the difference between data and information</li> </ul>	<ul style="list-style-type: none"> <li>I can use a variety of software to manipulate and present digital content: and information.</li> <li>I can show an awareness for the quality of digital content collected.</li> <li>I can talk about my work and make improvements to solutions based on feedback received</li> </ul>



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Upper school cycle B	History of Baghdad (Arabian Nights) and Mexico Study (Los misterios de Mexico)	Space (Out of this world) Portsmouth (Tudors)	Forces (Flight) and Changes (SRE/Geography)
<b>E-Safety</b>	<ul style="list-style-type: none"> <li>• I know the difference between the internet and internet service e.g. world wide web.</li> <li>• I can show an awareness of, and can use a range of internet services e.g. VOIP.</li> <li>• I know what is acceptable and unacceptable behaviour when using technologies and online services.</li> </ul> <p style="text-align: center;"><i>Repeated and developed throughout the year through Computing lessons and PDL</i></p>		
<b>Computer Science</b>	<ul style="list-style-type: none"> <li>• I can design solutions (algorithms) that use multiple selection beyond if and else and multiple loops which achieve given goals.</li> <li>• I can use diagrams to plan an algorithm.</li> <li>• I can find and correct (debug) repetition, selection and variable errors in code independently</li> <li>•</li> </ul>		<ul style="list-style-type: none"> <li>• I can find and correct (debug) repetition, selection and variable errors in code independently</li> <li>• I can use relational operations (less than, more than and equal to)</li> <li>• I can declare and assign multiple non-connected variables.</li> </ul>
<b>Digital Literacy</b>	<ul style="list-style-type: none"> <li>• I know that computers collect data from various input devices, including sensors and application software.</li> <li>• I know the difference between hardware and application software, and their roles within a computer system.</li> </ul>	<ul style="list-style-type: none"> <li>• I can create digital content to achieve a given goal through combining software packages and internet services to communicate with a wider audience e.g. blogging.</li> <li>• I know why sorting data in a flat file can improve searching for information.</li> <li>• I can use filters or can perform single criteria searches for information.</li> </ul>	<ul style="list-style-type: none"> <li>• I can create digital content to achieve a given goal through combining software packages and internet services to communicate with a wider audience e.g. blogging.</li> <li>• I can make judgements about digital content when evaluating and repurposing it for a given audience.</li> <li>• I can make appropriate improvements to solutions based on feedback received, and can comment on the success the solution.</li> </ul>



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Upper school cycle A	Water as a resource and renewable energy (Fuelling the Future)	Ancient Greek democracy and monarchs past and present (Power!)	Evolution and inheritance (Discovering Darwin)
<b>E-Safety</b>	<ul style="list-style-type: none"> <li>I know how to effectively use search engines, and I know how search results are selected, including that search engines use 'web crawler programs'.</li> <li>I can show responsible use of technologies and online services, and I know a range of ways to report concerns.</li> <li>I can select, use and combine different internet services.</li> </ul> <p style="text-align: center;"><i>Repeated and developed throughout the year through Computing lessons and PDL</i></p>		
<b>Computer Science</b>	<ul style="list-style-type: none"> <li>I know the difference between hardware and application software, and their roles within a computer system.</li> <li>I know the main functions of the operating system.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>I can create a program by decomposing it into parts and solving parts separately</li> <li>I can use post-tested loops e.g. 'until', and a sequence of selection statements in programs, including if, then and else statement.</li> </ul> <p>I can use a variable and relational operators within a loop to govern termination.</p>
<b>Digital Literacy</b>	<ul style="list-style-type: none"> <li>I can create a basic webpage</li> </ul>	<ul style="list-style-type: none"> <li>I can perform more complex searches for information e.g. using Boolean and relational operators.</li> <li>I can analyse and evaluate data and information</li> <li>I know the audience when I am designing and creating digital content.</li> <li>I can use criteria to evaluate the quality of solutions and can identify improvements making some refinements to the solution, and future solutions.</li> <li>I can evaluate the appropriateness of digital devices, internet services and application software to achieve given goals.</li> </ul>	



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