



# COMPUTING PROGRESSION MAP

Year 5			
	AUTUMN TERM:	SPRING TERM:	SUMMER TERM:
	Interactive Game Development [1] Secure Communication [2]	Creating Digital Artwork [1] Writing for Different Audiences [2]	Programming & Debugging [1] Spreadsheets & Databases [2]
Domain	Progression Statement		
Computer Science	<p><b>Problem Solving:</b></p> <ul style="list-style-type: none"> <li>Decomposes more open-ended problems into smaller parts, provides some reasoning for their choices.</li> </ul> <p><b>Programming:</b></p> <ul style="list-style-type: none"> <li>Understands the importance of how to refine a procedures using repeat commands to improve a program.</li> <li>Represent an algorithm symbolically (e.g. as a flow chart) to plan a procedure.</li> </ul> <p><b>Logical Thinking:</b></p> <ul style="list-style-type: none"> <li>Uses logical reasoning to explain how multiple algorithms work within a program, with confidence.</li> </ul>	<p><b>Problem Solving:</b></p> <ul style="list-style-type: none"> <li>Decomposes problems into smaller parts with some verbal reasoning.</li> </ul> <p><b>Programming:</b></p> <ul style="list-style-type: none"> <li>Uses controlled sequencing, inputs and repetition in programs and understands their effects on the output.</li> </ul> <p><b>Logical thinking:</b></p> <ul style="list-style-type: none"> <li>Uses logical reasoning to detect and correct errors in simple algorithms and programs.</li> </ul>	<p><b>Problem Solving:</b></p> <ul style="list-style-type: none"> <li>Approaches a range of problems thinking computationally, helping them to design other algorithms for other specific outcomes.</li> </ul> <p><b>Programming:</b></p> <ul style="list-style-type: none"> <li>Understands the function of variables to increase programming possibilities.</li> <li>Has a deeper understanding of conditions 'if' and 'then' using them with increased confidence.</li> </ul> <p><b>Logical Thinking:</b></p> <ul style="list-style-type: none"> <li>Uses logical thinking, imagination and creativity to improve and extend a program.</li> <li>Uses logical reasoning to detect and correct errors in algorithms and programs.</li> </ul>
Information Technology	<p><b>Creating Content:</b></p> <ul style="list-style-type: none"> <li>Selects, uses and combines the appropriate technology tools to create effects that will have an impact on others.</li> <li>Reviews and improves work, supports others to improve theirs.</li> </ul> <p><b>Searching:</b></p>	<p><b>Creating Content:</b></p> <ul style="list-style-type: none"> <li>Selects, uses and combines the appropriate technology tools to create effects that will have an impact on others.</li> <li>Reviews and improves work, supports others to improve theirs.</li> <li>Uses text, photo, sound and video editing tools to refine work.</li> </ul>	<p><b>Creating Content:</b></p> <ul style="list-style-type: none"> <li>Uses a spreadsheet and database to collect and record data.</li> <li>Choses an appropriate tool to collect data, then presents it in an appropriate way.</li> <li>Searches databases using different operators to refine my search.</li> <li>Identifies errors in Data.</li> </ul>

	<ul style="list-style-type: none"> <li>○ Uses simple strategies to increase the accuracy of their keyword searches.</li> <li>○ Is beginning to compare the number and kinds of sites obtained through searches.</li> </ul>	<p><b>Searching:</b></p> <ul style="list-style-type: none"> <li>○ Makes inferences about their use of various strategies with a deeper understanding.</li> <li>○ Understands that some sites maybe biased e.g. newspapers with political stance.</li> </ul>	<p><b>Searching:</b></p> <ul style="list-style-type: none"> <li>○ Use the internet to productively search for information and resources to support work in other subjects.</li> </ul>
<p>Digital Literacy</p>	<p><b>E-Safety:</b></p> <ul style="list-style-type: none"> <li>○ Uses technology safely, respectfully and responsibly.</li> <li>○ Knows the importance of protecting passwords and other personal information (encryption).</li> <li>○ Recognises acceptable/unacceptable behaviour.</li> <li>○ Knows a range of ways to report concerns and inappropriate behaviour.</li> <li>○ Shows awareness of the SMART rules.</li> <li>○ Has an awareness of their digital footprint, that what they do on the internet stays there</li> </ul> <p><b>Using IT Beyond School:</b></p> <ul style="list-style-type: none"> <li>○ Is responsible to and respectful of their offline and online communities.</li> <li>○ Communicates appropriately within and via messaging services and apps.</li> <li>○ Identifies the features and implications of malicious communications.</li> </ul>	<p><b>E-Safety:</b></p> <ul style="list-style-type: none"> <li>○ Uses technology safely, respectfully and responsibly.</li> <li>○ Shows awareness of the SMART rules.</li> <li>○ Has an awareness of their digital footprint, that what they do on the internet stays there.</li> <li>○ Is aware of age restrictions for sites and apps.</li> <li>○ Shows an understanding of how to create secure passwords.</li> <li>○ Knows that anything posted online can be seen, used and may affect others.</li> <li>○ Knows about the dangers of spending too long online or playing a game.</li> </ul> <p><b>Using IT Beyond School:</b></p> <ul style="list-style-type: none"> <li>○ Shows awareness of the hidden costs of app usage and in-app purchasing.</li> <li>○ Is aware that apps and games have privacy settings.</li> </ul>	<p><b>E-Safety:</b></p> <ul style="list-style-type: none"> <li>○ Can discuss the importance of choosing an age- appropriate website or game.</li> <li>○ Can explain why I need to protect my computer or device from harm.</li> <li>○ Shows awareness of the SMART rules.</li> <li>○ Has an awareness of their digital footprint, that what they do on the internet stays there.</li> </ul> <p><b>Using IT Beyond School:</b></p> <ul style="list-style-type: none"> <li>○ Has a growing appreciation of the dangers of spending too long online or playing a games.</li> </ul>

**Year group long-term overview (with statutory requirements) and subject progression map (above) to be used together to inform medium term planning.**