

## Curriculum Sequencing Grid: (KS3 – Y9 Computer Science)

Year 9	Term 1	Term 2	Term 3
<b>Unit</b> (Tablet in 39 week plan)	<ul style="list-style-type: none"> <li>Computer Systems</li> </ul>	<ul style="list-style-type: none"> <li>Cyber Security</li> </ul>	<ul style="list-style-type: none"> <li>Programming</li> </ul>
<b>Key Retainable Knowledge</b> (Required for Y11/13) <ul style="list-style-type: none"> <li>What... How.... Why....</li> </ul>	<ul style="list-style-type: none"> <li>Students to be given an introduction to networks and data connections, including the internet.</li> </ul>	<ul style="list-style-type: none"> <li>Students taught methods of cyber security attacks and how to prevent them.</li> </ul>	<ul style="list-style-type: none"> <li>Students to build on their knowledge from Y7 in both textual and non-textual languages.</li> </ul>
<b>Key Technical Vocabulary</b> (To be modelled and deliberately practiced in context.)	<ul style="list-style-type: none"> <li>Network</li> <li>Topologies</li> <li>LAN</li> <li>WAN</li> <li>Workstation</li> <li>NIC</li> <li>Switch</li> <li>Bridge</li> <li>Gateway</li> <li>Binary</li> <li>Hexadecimal</li> </ul>	<ul style="list-style-type: none"> <li>Cyberterrorism</li> <li>Downloading</li> <li>Encryption</li> <li>Hacker</li> <li>Network</li> <li>Virus</li> <li>Malware</li> <li>Ransomware</li> <li>Trojan</li> <li>Worm</li> <li>Phishing</li> <li>Piggybacking</li> <li>Shoulder Surfing</li> <li>Vulnerability</li> <li>Prevention</li> </ul>	<ul style="list-style-type: none"> <li>Sequence</li> <li>Selection</li> <li>Iteration</li> <li>Algorithm</li> <li>Variable</li> <li>Integer</li> <li>Constant</li> <li>Function</li> <li>Concatenation</li> <li>String</li> <li>Turtle</li> <li>Syntax</li> <li>Boolean Logic</li> <li>Tuples</li> <li>Arrays</li> <li>Dictionaries</li> </ul>
<b>Opportunities for Reading</b>	<ul style="list-style-type: none"> <li>BBC BITESIZE</li> <li>TEACH ICT</li> <li>Twitter</li> </ul>	<ul style="list-style-type: none"> <li>BBC BITESIZE</li> <li>TEACH ICT</li> <li>Twitter</li> </ul>	<ul style="list-style-type: none"> <li>BBC BITESIZE</li> <li>TEACH ICT</li> <li>Twitter</li> </ul>

Curriculum Sequencing Grid: (KS3 – Y9 Computer Science)

<p><b>Developing Cultural Capital</b> (exposure to very best- essential knowledge and skills of educated citizens – appreciation of human creativity and achievement.)</p>	<ul style="list-style-type: none"> <li>• Bebras</li> <li>• Hour of code</li> </ul>	<ul style="list-style-type: none"> <li>• Video of people working in Cyber Security</li> </ul>	<ul style="list-style-type: none"> <li>• Bebras</li> <li>• Hour of code</li> </ul>
<p><b>Cross Curricular Links</b> (Authentic Connections)</p>	<ul style="list-style-type: none"> <li>• Maths- binary/denary/hex conversions</li> </ul>		<ul style="list-style-type: none"> <li>• Maths- integer manipulation</li> </ul>
<p><b>Key Assessment</b></p>	<ul style="list-style-type: none"> <li>• SPA and CTG embedded into lesson structures.</li> </ul>	<ul style="list-style-type: none"> <li>• SPA and CTG embedded into lesson structures.</li> </ul>	<ul style="list-style-type: none"> <li>• SPA and CTG embedded into lesson structures.</li> </ul>