

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
KEY TOPIC/VALUE						
YEAR 7	<p><b>Introduction Part 1: Computing skills Entry Assessment.</b> What are student's experiences and skill and knowledge when joining year 7</p> <p><b>Introduction Part 2: Finding your way around HTAs computer systems.</b></p> <p><b>Unit 1: My digital World (e- Safety)</b> Students focus on the importance of use technology safely, respectfully, Responsibly and securely.</p>	<p><b>Unit 1: My digital World (e- Safety) - Continued</b> Students focus on the importance of use technology safely, respectfully, Responsibly and securely.</p> <p>Enter Oxford University Bebras Competition – Computational Thinking.</p>	<p><b>Unit 5: PowerPoint VBA Interactive Quiz Quiz</b> Using Visual Basic programming language to code an interactive system. Cross curricular links</p>	<p><b>Unit 2: Kodu (Visual programming)</b> Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems.</p>	<p><b>Unit 4: – How Computers Work</b> Understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems.</p>	<p><b>Unit 6 : Introduction/Advanced Scratch Programming</b> covering the following skills:</p> <ul style="list-style-type: none"> <li>• Using loops</li> <li>• Selection statements</li> <li>• Variables</li> <li>• Planning</li> <li>• Blocks</li> <li>• Problem Solving</li> </ul>

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YEAR 8	<p><b>Unit 1: Computational Thinking and Flowgorithm including Bebras Competition</b></p> <p>How to solve problems</p> <ul style="list-style-type: none"> <li>• Decomposition</li> <li>• Pattern recognition</li> <li>• Writing algorithms</li> <li>• Flowcharts</li> <li>• Pseudocode (include OCR Reference language)</li> <li>• Evaluating algorithms</li> </ul> <p>Please note: Split groups will run units in parallel.</p>	<p><b>Unit 2: Data Representation</b></p> <p>Understanding how data is stored in a computer system.</p> <ul style="list-style-type: none"> <li>• Convert binary, denary and hexadecimal values</li> <li>• Addition with binary</li> <li>• Logic Gates and truth tables</li> </ul> <p>Storing images, sound, text and instructions</p> <p>Enter Oxford University Bebras Competition – Computational Thinking.</p>	<p><b>Unit 3– Python Programming and Algorithms</b></p> <p>Moving from Block to Text Based Programming and following on from skills in Advanced Scratch</p> <p>Programming:</p> <ul style="list-style-type: none"> <li>• Algorithms using Flowgorithm</li> <li>• Input and Output</li> <li>• IF statements</li> <li>• Loops</li> </ul> <p>Correcting errors in Programming</p>	<p><b>Unit 4: Networks</b></p> <p>Understanding of how data is transmitted across the network</p> <ul style="list-style-type: none"> <li>• Types of networks – LAN, WAN</li> <li>• Factors that affect the performance of networks</li> <li>• The different roles of computers in client server and peer to peer networks</li> <li>• The hardware needed to convert standalone computers to a LAN</li> </ul> <p>Star and Mesh network topologies</p>	<p><b>Unit 5 – E-Safety</b></p> <p>Cyber Crime and System Security</p> <p>Online Safety and Digital Footprints</p>	<p><b>Unit 6 – App Development</b></p> <p>Creative task – create an app to help new year 6 students with transitioning to our school and becoming part of the community</p>

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YEAR 9	<p>Baseline Assessment – Python Programming</p> <p>Students will be set Programming tasks based on their baseline assessment.</p> <p><u>Dedicated Programming Focus:</u> Output text strings Input strings and numbers into variables</p> <p><u>Theory:</u> 1.1 System Architecture</p>	<p><u>Dedicated Programming Focus:</u> String manipulation Selection</p> <p><u>Theory:</u> 1.1 System Architecture</p> <p>Enter Oxford University Bebras Competition – Computational Thinking.</p>	<p><u>Dedicated Programming Focus:</u> String manipulation Selection</p> <p><u>Theory:</u> 1.2 Part 1 Memory and Storage</p>	<p><u>Dedicated Programming Focus:</u> Arithmetic operations and random numbers Counter controlled iteration</p> <p><u>Theory:</u> 1.2 Part 1 Memory and Storage</p>	<p><u>Dedicated Programming Focus:</u> Condition controlled iteration</p> <p><u>Theory:</u> 1.2 Part 2 Data Representation</p>	<p><u>Dedicated Programming Focus:</u> Subroutines, procedures and functions.</p> <p><u>Theory:</u> 1.2 Part 2 Data Representation</p>

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YEAR 10	<p>1.5 System Software</p> <p>Dedicated Programming</p>	<p>1.6 Ethical, Cultural and Legal issues</p> <p>Paper 1 Assessment for groups 10ACS1 and 10BCS1</p> <p>Dedicated Programming</p> <p>Enter Oxford University Bebras Competition – Computational Thinking.</p>	<p>2.2 Programming Fundamentals</p> <p>Dedicated Programming</p>	<p>2.4 Computational Logic</p> <p>Dedicated Programming</p>	<p>2.1 Algorithms Revision</p> <p>Dedicated Programming</p>	<p>Dedicated Programming</p> <p>Preparation for Internal Assessment</p> <p>Internal Assessment</p>

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YEAR 11	<p>POS Statements from Mock Exam – Paper 1 and Paper 2.</p> <p>2.2 Programming Fundamentals.</p> <p>Dedicated Programming.</p>	<p>2.3 Producing Robust Programs.</p> <p>Dedicated Programming.</p> <p>Internal Assessment Preparation.</p> <p>Enter Oxford University Bebras Competition – Computational Thinking.</p>	<p>POS Statements from Mock Exam – Paper 1 and Paper 2.</p> <p>2.5 Programming languages and IDE's</p> <p>Dedicated Programming.</p>	<p>Revise 2.1 Algorithms and 2.4 Boolean Logic.</p> <p>Dedicated Programming.</p>	<p>Revision</p> <p>Focus – Essay style questions.</p> <p>Dedicated Programming</p>	<p>NA</p>