

Year 7	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
<b>Knowledge</b>	<b>Collaborating Online Respectfully</b> <ul style="list-style-type: none"> <li>Safe use of computers Logins / Passwords School IT Systems (Google Classroom,) Saving work (folders / Drive) E-mail Google &amp; Internet Searching</li> </ul>	<b>Problem Solving</b> <ul style="list-style-type: none"> <li>Algorithms</li> <li>Block-based programming Sequencing</li> <li>Iteration Selection Variable</li> </ul>	<b>Think like a Computer Scientist and introduction to Python</b> <ul style="list-style-type: none"> <li>Key concepts of computational thinking, decomposition, abstraction and writing algorithms.</li> <li>Basics of Python including inputs and outputs and using Turtle to draw shapes</li> </ul>	<b>Modelling Data</b> <ul style="list-style-type: none"> <li>Spreadsheets Formatting</li> <li>IF statements Conditional Formatting Drop down lists</li> <li>Basic Formulae (MIN, MAX, SUM, AVG)</li> </ul>	<b>Computational Thinking</b> <ul style="list-style-type: none"> <li>Basic CT terms (abstraction, decomposition, patterns) Recap of algorithms using flowcharts</li> <li>Searching/Sorting Algorithms Introduction to Python</li> </ul>	<b>Digital Creativity Project</b> <ul style="list-style-type: none"> <li>Creating purposeful digital content – using python and micro bits</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>Communication Skills</li> <li>Resilience</li> </ul>	<ul style="list-style-type: none"> <li>Independence</li> <li>Problem Solving</li> </ul>	<ul style="list-style-type: none"> <li>Creativity</li> <li>Coding</li> <li>Independence</li> </ul>	<ul style="list-style-type: none"> <li>Understanding Data</li> <li>Manipulating with data</li> <li>Creativity</li> </ul>	<ul style="list-style-type: none"> <li>Computational Thinking</li> <li>Creativity</li> </ul>	<ul style="list-style-type: none"> <li>Creativity</li> <li>Coding</li> <li>Independence</li> </ul>
<b>Independent Learning Link</b>	<a href="https://quizlet.com/355798968/programming-z1-keywords-flash-cards/">https://quizlet.com/355798968/programming-z1-keywords-flash-cards/</a>	<a href="https://codehs.com/hourofcode">https://codehs.com/hourofcode</a> <a href="https://quizlet.com/355798968/programming-z1-keywords-flash-cards/">https://quizlet.com/355798968/programming-z1-keywords-flash-cards/</a>	<a href="https://codehs.com/hourofcode">https://codehs.com/hourofcode</a> <a href="https://quizlet.com/355798968/programming-z1-keywords-flash-cards/">https://quizlet.com/355798968/programming-z1-keywords-flash-cards/</a>	<a href="https://quizlet.com/355798968/programming-z1-keywords-flash-cards/">https://quizlet.com/355798968/programming-z1-keywords-flash-cards/</a>	<a href="https://codehs.com/hourofcode">https://codehs.com/hourofcode</a>	<a href="https://quizlet.com/355798968/programming-z1-keywords-flash-cards/">https://quizlet.com/355798968/programming-z1-keywords-flash-cards/</a>

Year 8	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
<b>Knowledge</b>	<b>Using technology safely, securely and responsibly</b> <ul style="list-style-type: none"> <li>E-Safety (profiles, privacy settings, who to turn to for help)</li> <li>Cyberbullying and grooming/ Use of social media</li> </ul>	<b>Developing the web</b> <ul style="list-style-type: none"> <li>Explore the technologies that make up the internet and World Wide Web</li> <li>World Wide Web, HTML</li> <li>CSS</li> </ul>	<b>Understanding Computer Systems</b> <ul style="list-style-type: none"> <li>Computer Hardware</li> <li>How a CPU works (FDE cycle) Inputs/Outputs</li> <li>Software (Operating Systems &amp; Applications)</li> <li>Networks</li> <li>Binary/Decimal conversions</li> </ul>	<b>Python Programming</b> <ul style="list-style-type: none"> <li>Variables</li> <li>Sequence</li> <li>Iteration</li> <li>Selection</li> <li>Functions</li> </ul>	<b>Data Representation</b> <ul style="list-style-type: none"> <li>Simple Boolean logic [for example, AND, OR and NOT</li> <li>Sorting and Searching</li> <li>Algorithms Boolean Logic, logic gates &amp; Truth Tables</li> </ul>	<b>Digital Creativity Project</b> <ul style="list-style-type: none"> <li>Create a python project- including, text, sounds ,image and other complex operators</li> <li>Planning, testing, implementing and analyzing the use of different operators.</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>Communication Skills</li> <li>Resilience</li> </ul>	<ul style="list-style-type: none"> <li>Computational Thinking</li> <li>Creativity</li> </ul>	<ul style="list-style-type: none"> <li>Creativity</li> <li>Coding</li> <li>Independence</li> </ul>	<ul style="list-style-type: none"> <li>Computational Thinking</li> <li>Creativity</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>Understanding Data</li> <li>Manipulating with data</li> <li>Creativity</li> </ul>	<ul style="list-style-type: none"> <li>Testing</li> <li>Analysing</li> <li>Creativity</li> </ul>
<b>Independent Learning Link</b>	<a href="#">Quizlet</a>	<a href="#">Quizlet</a>	<a href="https://www.learnpython.org/Quizlet">https://www.learnpython.org/Quizlet</a>	<a href="https://codehs.com/hourofcode">https://codehs.com/hourofcode</a> <a href="https://www.learnpython.org/">https://www.learnpython.org/</a>	<a href="https://www.learnpython.org/">https://www.learnpython.org/</a> <a href="https://quizlet.com/409390655/creative-it-ks3-flash-cards/">https://quizlet.com/409390655/creative-it-ks3-flash-cards/</a>	<a href="https://www.learnpython.org/">https://www.learnpython.org/</a>

Year 9	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
<b>Knowledge</b>	<b>E-Safety Refresher /Cybersecurity</b> <ul style="list-style-type: none"> <li>Techniques that cybercriminals use steal data, disrupt systems, and infiltrate networks</li> </ul>	<b>Search &amp; Sort Algorithms</b> <ul style="list-style-type: none"> <li>Key algorithms that reflect computational thinking [for example, ones for sorting and searching]</li> <li>use logical reasoning to compare the utility of alternative algorithms for the same problem</li> <li>understand the hardware and software components that make up computer systems</li> </ul>	<b>Computer Systems</b> <ul style="list-style-type: none"> <li>How instructions are stored and executed within a computer system;</li> <li>How data of various types (including text, sounds and pictures) can be data represented and manipulated digitally, in the form of binary digits.</li> </ul>	<b>Python 3</b> <ul style="list-style-type: none"> <li>To solve a variety of computational problems;</li> <li>make appropriate use of data structures [for example, lists, tables or arrays]</li> <li>Design and develop modular programs that use procedures or functions User Interfaces Linked to IT</li> </ul>	<b>Logic Gates</b> <ul style="list-style-type: none"> <li>Understand simple Boolean logic [for example, AND, OR and NOT] and</li> <li>It uses in circuits and programming</li> <li>Computing (2)</li> <li>Python Recap</li> </ul>	<b>Network Connections and Protocols</b> <ul style="list-style-type: none"> <li>The internet and WANs</li> <li>LANs</li> <li>Wireless networking</li> <li>Client-server &amp; P2P</li> <li>Standard protocols and layers</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>Communication Skills</li> <li>Resilience</li> </ul>	<ul style="list-style-type: none"> <li>Understanding Data</li> <li>Manipulating with data</li> <li>Creativity</li> </ul>	<ul style="list-style-type: none"> <li>Understanding Data</li> <li>Manipulating with data</li> <li>Creativity</li> </ul>	<ul style="list-style-type: none"> <li>Computational Thinking</li> <li>Creativity</li> </ul>	<ul style="list-style-type: none"> <li>Computational Thinking</li> <li>Creativity</li> </ul>	<ul style="list-style-type: none"> <li>Computational Thinking</li> <li>Creativity</li> </ul>
<b>Independent Learning Link</b>	<a href="https://quizlet.com/355798968/programming-z1-keywords-flash-cards/">https://quizlet.com/355798968/programming-z1-keywords-flash-cards/</a>	<a href="https://codehs.com/hourofcode">https://codehs.com/hourofcode</a> <a href="https://www.learnpython.org/">https://www.learnpython.org/</a>	<a href="https://quizlet.com/355798968/programming-z1-keywords-flash-cards/">https://quizlet.com/355798968/programming-z1-keywords-flash-cards/</a>	<a href="https://codehs.com/hourofcode">https://codehs.com/hourofcode</a> <a href="https://www.learnpython.org/">https://www.learnpython.org/</a>	<a href="https://quizlet.com/355798968/programming-z1-keywords-flash-cards/">https://quizlet.com/355798968/programming-z1-keywords-flash-cards/</a>	<a href="https://quizlet.com/355798968/programming-z1-keywords-flash-cards/">https://quizlet.com/355798968/programming-z1-keywords-flash-cards/</a>