



## What will my child learn in Computer Science?

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<b>Year 9</b>	<b>Digital Systems</b> <ul style="list-style-type: none"> <li>- Computer systems</li> <li>- Computer Devices</li> <li>- Computer Components</li> </ul>	<b>Digital Systems</b> <ul style="list-style-type: none"> <li>- The CPU</li> <li>- Memory &amp; Storage</li> <li>- Units of storage</li> </ul>	<b>Programming</b> <ul style="list-style-type: none"> <li>- Introduction to Scratch</li> <li>- Helicopter</li> <li>- Racing cars</li> <li>- Tanks</li> <li>- Space invaders</li> </ul>	<b>Programming</b> <ul style="list-style-type: none"> <li>- Introduction to Python</li> <li>- Input, Output, Variables &amp; Strings</li> <li>- Loops &amp; conditions</li> <li>- Nested code</li> <li>- Love Calculator</li> </ul>	<b>Microsoft Office</b> <ul style="list-style-type: none"> <li>- Word Skills</li> <li>- PowerPoint Skills</li> <li>- Excel Skills</li> </ul>	<b>Online Safety</b> <ul style="list-style-type: none"> <li>- Inappropriate conduct</li> <li>- Inappropriate contact</li> <li>- Inappropriate content</li> <li>- Reporting concerns</li> </ul>

## OCR GCSE Computer Science J277 (GCSE Option Students)

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<b>Year 10</b>	<b>Python Skills</b> <ul style="list-style-type: none"> <li>- String concatenation</li> <li>- Variables, input &amp; output</li> <li>- Data types</li> <li>- Loops (For/While)</li> <li>- Conditional statements</li> <li>- Math &amp; Logic</li> <li>- Functions</li> <li>- Random Numbers</li> </ul>	<b>1.1 System Architecture</b> <ul style="list-style-type: none"> <li>- Architecture of the CPU</li> <li>- CPU Performance</li> <li>- Embedded Systems</li> </ul>	<b>1.2 Memory &amp; Storage</b> <ul style="list-style-type: none"> <li>- Primary Storage</li> <li>- Secondary Storage</li> <li>- Units</li> <li>- Data storage</li> <li>- Compression</li> </ul>	<b>1.3 Computer Networks, Connections and Protocols</b> <ul style="list-style-type: none"> <li>- Networks &amp; topologies</li> <li>- Wired and wireless networks, protocols and layers</li> </ul>	<b>1.4 Network Security</b> <ul style="list-style-type: none"> <li>- Threats to computer systems and networks</li> <li>- Identifying and preventing vulnerabilities</li> </ul> <b>1.5 Systems Software</b> <ul style="list-style-type: none"> <li>- Operating systems</li> <li>- Utility Software</li> </ul>	<b>1.6 Ethical, legal, cultural and environmental impacts of digital technology</b> <ul style="list-style-type: none"> <li>- Ethical, legal cultural and environmental impact</li> </ul>
<b>Year 11</b>	<b>2.1 Algorithms</b> <ul style="list-style-type: none"> <li>- Computational thinking</li> <li>- Designing, creating and refining algorithms</li> <li>- Searching and sorting algorithms</li> </ul>	<b>2.2 Programming Fundamentals</b> <ul style="list-style-type: none"> <li>- Programming fundamentals</li> <li>- Data types</li> <li>- Additional programming techniques</li> </ul>	<b>2.3 Producing Robust Programs</b> <ul style="list-style-type: none"> <li>- Defensive design</li> <li>- Testing</li> </ul>	<b>2.4 Boolean Logic</b> <ul style="list-style-type: none"> <li>- Boolean Logic</li> </ul>	<b>2.5 Programming Languages &amp; IDEs</b> <ul style="list-style-type: none"> <li>- Languages</li> <li>- The integrated Development Environment (IDEs)</li> </ul>	