



## Computer Science, IT, Business and Digital Media Department

### Long-term sequencing Year 13 A-Level Computer Science

**CURRICULUM INTENT:** To provide a knowledge-rich and balanced curriculum to support all learners through the course content; to provide multiple opportunities to use coding to create working and functional programs, and to solve given complex problems; to understand the impacts of digital technology to the individual and wider society, with particular attention paid to cultural, ethical and spiritual impact; to continue from GCSE level to a higher level of understanding of computer systems such as hardware, networks, databases and the Internet; to assist learners in writing a long and complex piece of independent work; to provide the greatest possible level of assistance with revision for examinations.

<p><b>HALF TERM 1:</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>Ethical and Cultural issues</li> <li>Legislation related to Computer Science</li> <li>Computational Thinking</li> <li><i>Coursework: Coding and Testing</i></li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> Mini assessment at end of first H/T Weekly knowledge checkers and/or homework</p>	<p><b>HALF TERM 2:</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>Thinking abstractly and logically</li> <li>Problem recognition and problem solving</li> <li>Revision for Unit 1 Mock per QLA</li> <li><i>Coursework: Coding and Testing</i></li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> Full assessment (Paper 1) LRW1 Weekly knowledge checkers and/or homework</p>	<p><b>HALF TERM 3:</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>Programming basics</li> <li>Recursion</li> <li>Object Oriented Programming</li> <li><i>Coursework: Evaluation</i></li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> Mini assessment at end of first half term Weekly knowledge checkers and/or homework</p>
<p><b>HALF TERM 4:</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>Algorithms</li> <li>Searching and Sorting</li> <li>Graph Traversal</li> <li>Optimisation</li> <li><i>Coursework: Completion</i></li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> Full assessment for Paper LRW2 Weekly knowledge checkers and/or homework</p>	<p><b>HALF TERM 5:</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>Revision for Exams per QLAs</li> </ul> <p><b>HOW THIS WILL BE ASSESSED:</b> Weekly knowledge checkers and/or homework</p>	<p><b>HALF TERM 6:</b> <b>STUDENTS MUST KNOW:</b> N/A</p> <p><b>HOW THIS WILL BE ASSESSED:</b> N/A</p>

**Home learning will consist of a combination of:** Worksheets (written and online), exam questions, QLA revision, GCSEPOD, SENECA, Google Classroom