

## **GCSE COMPUTER SCIENCE** **CURRICULUM MAP/SEQUENCE**

|                 | YEAR 10                                                                                                                                                                                                      | YEAR 11                                                                                                                                                                                                |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Autumn 1</b> | 1.1.1 Architecture of the CPU<br>1.1.2 CPU Performance<br>1.1.3 Embedded systems<br>2.4.1 Boolean logic<br>1.2.3 Units<br>1.2.4 Data storage – numbers<br>2.1.2 Designing, creating and refining algorithms. | 1.4.1 Threats to systems and networks<br>1.4.2 Identifying and preventing vulnerabilities<br>1.5.1 Operating systems<br>1.5.2 Utility software<br>1.6.1 Ethical, legal, cultural, environmental issues |
| <b>Autumn 2</b> | 2.1.2 Designing, creating and refining algorithms.<br>2.2.1 Programming fundamentals<br>2.2.2 Data types<br>2.2.1 Programming fundamentals cont.<br><br>Practical programming skills                         | 1.6.1 Ethical, legal, cultural, environmental issues<br>2.3.1 Defensive design<br>2.3.2 Testing<br>2.5.1 Programming languages<br>2.5.2 The IDE<br><br>Practical programming                           |
| <b>Spring 1</b> | 2.2.3 Additional programming techniques<br><br>Practical programming skills                                                                                                                                  | 2.1.3 Searching and sorting algorithms<br><br>Programming challenges                                                                                                                                   |
| <b>Spring 2</b> | 1.2.4 Data storage – characters, images, sound<br>1.2.5 Compression<br><br>Practical programming skills                                                                                                      | Programming project<br><br>Revision                                                                                                                                                                    |
| <b>Summer 1</b> | 1.2.1 Primary storage (memory)<br>1.2.2 Secondary storage<br>1.3.1 Networks and topologies                                                                                                                   | Revision                                                                                                                                                                                               |
| <b>Summer 2</b> | 1.3.2 Wired and wireless networks<br><br>Revision<br>Practical programming skills                                                                                                                            |                                                                                                                                                                                                        |