## Curriculum Map: Y10 GCSE Computer Science



| Focus      | Term 1A  |                        | Term 1B                                   |   | Term 2A                   |   | Term 2B              |  | Term 3A                 |   | Term 3B  |
|------------|--|------------------------|---|---|---------------------------|---|----------------------|--|-------------------------|---|--|
| Paper<br>1 | 1.1 Systems<br>Architecture                    |                        | 1.2 Memory and Storage                    |   | 1.2 Computer<br>Networks, |   | 1.3 Network Security |  | 1.4 Systems<br>Software |   | 1.5 Ethical, legal,<br>cultural and  |
|            | 1.1.1 Ard<br>the<br>1.1.2 CP<br>Pe<br>1.1.3 Em | chitecture of<br>e CPU | 1.1.4<br>1.1.5<br>1.1.6<br>1.1.7<br>1.1.8 | Primary Storage<br>Secondary<br>Storage<br>Units<br>Data Storage<br>Compression | C                         | Networks and<br>rotocols<br>Networks and<br>topologies<br>Wired and<br>wireless<br>networks,<br>protocols and<br>layers | 1.3.1                | Threats to<br>computer<br>systems and<br>networks<br>Identifying<br>and<br>preventing<br>vulnerabilities | 1.4.1<br>1.4.2          | Operating<br>Systems<br>Utility<br>Software | environmental<br>impacts of<br>digital<br>technology<br>Ethical / legal /<br>cultural issues /<br>environmental issues<br>/ privacy issues<br>Legislation relevant<br>to Computer<br>Science:<br>The Data Protection<br>Act 2018<br>Computer Misuse<br>Act 1990<br>Copyright, Designs<br>and Patents Act 1988<br>Software Licenses<br>(Open Source and<br>Proprietary) |

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| Paper | 2.1 Algorithms            | 2.2 Programming         | 2.2 Programming       | 2.2. Programming     | 2.2 Programming | 2.2 Programming |
|-------|---------------------------|-------------------------|-----------------------|----------------------|-----------------|-----------------|
| 2     |                           | Fundamentals            | Fundamentals          | Fundamentals         | Fundamentals    | Fundamentals    |
|       | 2.1.1 Computational       |                         |                       |                      |                 |                 |
|       | Thinking                  | Program Constructs;     | The use of variables, | Arithmetic operators | Programming     | Programming     |
|       |                           | sequence, selection and | constants, operators, |                      | Challenges      | Challenges      |
|       | 2.1.2 Designing, creating | iteration               | inputs, outputs and   | Boolean operators    |                 |                 |
|       | and refining algorithms   |                         | assignment            |                      |                 |                 |
|       | 2.1.3 Searching and       |                         |                       |                      |                 |                 |
|       | sorting algorithms        |                         |                       |                      |                 |                 |
|       |                           |                         |                       |                      |                 |                 |
|       |                           |                         |                       |                      |                 |                 |
|       |                           |                         |                       |                      |                 |                 |