

Year 11 - CYCLE 4 • Computer Science • Software & Security | Social, Moral, Legal & Ethical Issues

|                           |  |                            |            |           |              |           |            |
|---------------------------|--|----------------------------|------------|-----------|--------------|-----------|------------|
| <b>Name:</b>              |  |                            |            |           | <b>FORM:</b> |           |            |
| <b>GCSE Target Grade:</b> |  | <b>End of cycle grade:</b> | <b>SAE</b> | <b>AE</b> | <b>E</b>     | <b>BE</b> | <b>SBE</b> |

| <b>KEYWORDS</b>   |                    |                     | <b>Unit Description</b>  |  |
|-------------------|--------------------|---------------------|--|--|
| Cloud/Hosting     | HTTP/HTTPS         | FTP                 | <i>In this unit we explore the evolution of computers over time and how this has had an impact on us, the laws that protect us and the different impact in relation to the Social &amp; moral issues.<br/>In this unit you will look at various security threats and measure you can put into place to prevent them using techniques such as: Encryption, Anti-Virus, Anti-Malware software etc.</i> |  |
| TCP/IP            | POP/IMAP           | SMTP                |  |  |
| Malware/ Phishing | Social engineering | Brute force attacks |  |  |
| DPA               | CMA                | CDPA                |  |  |

| <b>Software &amp; Security</b> |  | ✓ | <b>Social, Moral, Legal &amp; Ethical Issues</b>   |  | ✓ |
|--------------------------------|--|---|--|--|---|
| <b>7-9</b>                     | Describe the purpose and use of encryption software  |   | Discuss privacy issues related to the collection of electronic data by government and commercial organisations   |  |   |
|                                | Describe the purpose and use of defragmentation software   |   | Consider the ethical and cultural issues related to computer science technologies  |  |   |
|                                |  |   | Consider how key stakeholders are affected by technologies   |  |   |
| <b>6</b>                       | Describe the purpose and use of data compression software  |   | Describe legislation relevant to Computer Science: <ul style="list-style-type: none"> <li>• The Data Protection Act 1998</li> <li>• Computer Misuse Act 1990</li> <li>• Copyright Designs and Patents Act 1988</li> <li>• Creative Commons Licence</li> <li>• Freedom of Information Act 2000</li> </ul> |  |   |
|                                | Understand forms of attack and threats posed to a network such as Malware, Phishing & Social engineering |   | Consider the environmental impact of computer science  |  |   |
|                                | Identify and understand the prevention of vulnerabilities  |   |  |  |   |
| <b>5</b>                       | Explain the need for an of an operating system   |   | Consider security issues   |  |   |
|                                | Understand forms of attack and threats posed on a network.   |   | Compare open source and proprietary software   |  |   |