

| SUBJECT | | YEAR | TERM |
|---|--|---|--|
| Computer Science (OCR) | | 10 | 3 |
| UNIT | | | |
| Security, Software & Law | | | |
| INTENT | | | |
| PRIOR LEARNING (TOPIC) – Pupils may have pre-existing knowledge on this topic from their learning outside of lessons, however, this is not a requirement. | | | |
| This unit is broken down into three subsections. Pupils will initially look at a range of cyber-security threats and how these can be stopped or mitigated. As part of this we also investigate the legislation governing the use of computers. The unit then moves onto looking at types of software and the legal issues relating to licencing. Finally, pupils will learn about some of the ethical, environmental and cultural issues relating to the use of computers. | | | Specification Points: This unit covers points 1.4 to 1.6 |
| FUTURE LEARNING (TOPIC): A-Level Computer Science | | | |
| IMPLEMENTATION | | IMPACT | |
| Throughout the unit pupils will cover: <ul style="list-style-type: none">Forms of cyber-attack and methods used to mitigate these threats.The role of operating systems.The purpose of utility software.Types of licencing.Ethical, cultural, environment and legal issues relating to the use of computers. | | Assessment: Pupils will sit a 40 mark in-lesson assessment at the end of the unit, the score from which will be translated into a 9-1 style grading. In addition to this, pupils will complete regular exam style questions both during lesson and as part of homework tasks. | |
| HOW CAN PARENTS HELP AT HOME? | | | |
| All course materials are available via Firefly. In the build-up to the assessment, parents can help by supporting their child’s revision. This can include testing them using flash cards or simply getting them to explain topics to you. | | | |
| HELPFUL READING/FURTHER DISCUSSION | | | |
| READING/EXTRA-LEARNING There are an enormous number of online courses and tutorials to help pupils develop their computer science skills further. Visit the Next Steps section of the Computing department’s Firefly page for more details. | | CAREERS This unit leads into a wide range of careers including software engineering and cyber security. | WIDER SKILLS Digital Literacy Resilience |
| VOCABULARY | | | |
| Malware, Social Engineering, Brute-Force, DOS, Data Interception, SQL Injection, Penetration Testing, Anti-Malware, Firewalls, Encryption, Operating System, Defragmentation, Compression, DPA, CMA, CDPA, Open-Source, Proprietary. | | | |