



Subject	Year	Term
Computer Science	10	3
Topic		
Network security, Systems Software, impacts of digital tech, programming		
Content (Intent)		
Prior Learning (Topic)	Networks, programming	
Passive and active attacks on networks. Hackers, malware, viruses, SQL injection. Counter-measures to protect systems from attack. The function and purpose of systems software. A layer of software between hardware and the apps used by humans. Their purpose and how they can be configured to maintain and repair computer systems. The moral, social and environmental impacts of digital technology, including the ethics and the laws which surround the use of technology in the modern world. Computer Misuse Act, Data Protection Act, Copyrights Act		
Future Learning (Topic)	Algorithms, programming	
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)	
The main types of system attacks that take place around the world, including DDOS, and how these can be countered. Threats to networks from hacking and how they can be tackled, including how malware is used and how people are the weakest point in most systems. How a good network policy can protect a network from attack System software on a computer system, including the OS, utilities and typical routines such as defrag, firewall and backup	A test in class based on past questions and on those provided by the exam board which are part of the end of unit test package. Students will be given a grade based on published grade boundary data. There will be some interim on-line testing based on multiple choice questions in	
What the various laws governing how computers, data and information can be used. The moral and ethical dilemmas of computer use, including environmental impacts, social well being.	Questions based on the end of unit tests provided by the exam board. These will be done either for homework or as exercises in class. Students can test their knowledge with Google and Teams Forms. PG-online multiple choice questions and long and short answer exercises	
How can parents help at home?		
Parents can help by ensuring revision and homework is completed.		
Helpful further reading/discussion (including Reading and Vocabulary Lists)		
Reading CGP Computer science ISBN: 9781782946021 networks GCSE Pod protocols PG-online powerpoints	Vocabulary Lists Virus Malware DOS DDOS Firewall Anti-virus Data Protection Act Computer Misuse Act Heavy elements Rare Earth elements Global warming Plastics pollution	Worm Trojan Antivirus Antimalware SQL injection GUI Utilities Operating system Defragmentation Firewall Backup Stakeholder Ethics