YEAR 11 HALF TERM 1 COMPUTER SCIENCE LEARNING PROGRAMME

Love God
Serve others
Work hard
Value all

Topic	Learning Objectives	Key Vocabulary	Learning Sequence	Linked Learning	Home Learning
NEA independent programming task 20 hours	Understanding and developing computer programmes	Analysis Abstraction Decomposition Algorithms Testing		Computation thinking (paper 1)	This will be set on a by need basis. In order to consolidate learning and fluency of subject specific language.

YEAR 11 HALF TERM 2 COMPUTER SCIENCE LEARNING PROGRAMME

Love God
Serve others
Work hard
Value all

Topic	Learning Objectives	Key Vocabulary	Learning Sequence	Linked Learning	Home Learning
NEA independent programming task 20 hours	Understanding and developing computer programmes	Analysis Abstraction Decomposition Algorithms Testing		Computation thinking (paper 1)	This will be set on a by need basis. In order to consolidate learning and fluency of subject specific language.
Fundamentals of computer networks	Compare features of wired and wireless network Compare benefits for wired and wireless Network Topologies and Transmission Network Security Protocols & Layers	PAN,LAN,WAN Wifi Bus Star Topologies Ethernet Protocols (TCP,UDP,IP,HTTP,HTTPS,FTP,SMPT IMAP) MAC Address TCP/IP Application Layer Transport Layer Internet Layer Link Layer	Wired V wireless Network Hardware Data transmission Network Topologies Network Security Protocols and layers within TCP/IP	Year 9 builds on prior learning Written Assessment (paper 2)	This will be set on a by need basis. In order to consolidate learning and fluency of subject specific language.

YEAR 11 HALF TERM 3 COMPUTER SCIENCE LEARNING PROGRAMME

Love God
Serve others
Work hard
Value all

Topic	Learning Objectives	Key Vocabulary	Learning Sequence	Linked Learning	Home Learning
Fundamentals of Cyber Security	Cyber Security Threats Social Engineering Malicious Code Detecting and preventing cyber security threats	Blagging Shouldering Phishing Pharming Black box Testing White box Testing Malware Trojan Adware Spyware	Introduce cyber security and vulnerability of computer systems Social Engineering - Blagging - Shouldering - Phishing - Pharming Identify viruses and how they spread within a network Detecting and preventing cyber security threats	Computation thinking (paper 1)	This will be set on a by need basis. In order to consolidate learning and fluency of subject specific language.
Impacts of digital technology	Ethical Issues Digital Technology in Society Legislation	Environment Health Commerce Social Networking Future Technologies AI Privacy Hacking Copyright Cookies	Rise of Artificial intelligence Applications of AI in present and future technologies Social Networking Technology in employment, health and commerce Environmental impact of computers Data Protection Act Copyright Computer misuse Act		