



HALF TERM 2.1 Jan - Feb	Lessons 1 - 12	Lesson 13 - 15
TOPIC (S)	Computer networks, connections and protocols, plus programming skills	Dedicated programming skills
Knowledge & Skills development	What are the characteristics of LANs and WANs? What can affect the performance of a network? What are the differences between peer-to-peer and client-server networks? How do you set up a LAN? How does The Internet work? Why is a mesh network better than a star network? Which is better, a wired or wireless network? What is the purpose of encryption? What are the differences between three types of network device addresses? What are standards and protocols? What are the benefits of layering protocols?	Gain experience in practical programming using TIME model
Assessment / Feedback Opportunities	Classroom activity - Class Discussion - Questioning pupils – verbal feedback	Classroom activity - Class Discussion - Questioning pupils – verbal feedback
Cultural Capital	Problem solving Impact of technology on the world	
SMSC / Promoting British Values (Democracy, Liberty, Rule of Law, Tolerance & Respect)	<ul style="list-style-type: none"> • Listening to others • Responding suitable in discussions • Taking part in group activities 	
Reading opportunities	Instructional Reading Key word Identification Decomposition and Abstraction	
Key Vocabulary	LAN, WAN, Client-server network, Peer-to-peer network, Wireless access point, Router, Switch, NIC, Transmission media, The Internet, DNS, Hosting, The cloud, Web server, Client, Network topology, Star topology, Mesh topology, Wired connection, Ethernet, Wireless connection, WiFi, Bluetooth, Encryption, IP address, MAC address, Standards, Protocol, TCP/IP, HTTP, HTTPS, FTP, POP, IMAP, SMTP, Protocol layering	
Digital Literacy	Use of technology Understanding of how technology works	
Careers	Network Administrator – Network System Engineer - Network Programmer/Analyst - Network Systems Manager	