HALF TERM 2.2 Feb - Apr	Week 22	Week 23 – 24	Week 25	Week 26-27
TOPIC (S)	Dedicated programming skills	1.11 Networks	Dedicated programming skills	1.12 Web Technologies
Knowledge & Skills development	Gain experience in practical programming using TIME model	What is a network and why are they more useful than stand-alone computers? What are the definitions of standards and protocols, and why are they needed? What are the typical standards and protocols used in networking today? What does protocol layering mean and why is it needed? How does the internet work using TCP/IP? How does the domain name system work using recursive domain name servers? How does circuit switching work? How does packet switching work? What are the differences between local and wide area networks? What are the threats to network security and how can they be mitigated? What are the threats to network security and how can they be mitigated? How are devices on local area networks connected? What are the differences between a client-server and peer-to-peer network topology?	Gain experience in practical programming using TIME model	How does a browser display a web page using HTML and CSS? How does a browser display a web page using HTML and CSS? How does a browser display a web page using HTML and CSS? How does a browser display a web page using HTML and CSS? How do search engines work? How is client- and server-side processing used with dynamic web pages, and what are the advantages of each method?
Assessment / Feedback Opportunities	Classroom activity - Class Discussion - Questioning pupils – verbal feedback	Classroom activity - Class Discussion - Questioning pupils – verbal feedback – exam questions	Classroom activity - Class Discussion - Questioning pupils – verbal feedback	Classroom activity - Class Discussion - Questioning pupils – verbal feedback – exam questions
Cultural Capital	Problem solving Impact of technology on the world			

SMSC / Promoting British Values (Democracy, Liberty, Rule of Law, Tolerance & Respect)	- Listening to others - Responding suitable in discussions - Taking part in group activates	
Reading opportunities	Key word Identification Decomposition and Abstraction The Principles of Beautiful Web Design: Designing Great Web Sites is Not Rocket Science Web Design Playground: HTML & CSS the Interactive Way UX Design 2020: The Ultimate Beginner's Guide to User Experience	
Key Vocabulary	Protocol, TCP/IP stack, DNS, Protocol layering, LAN, WAN, Packet switching, Circuit switching, Firewall, Proxies, Encryption, Client-server, Peer-to-peer	HTML, CSS, JavaScript, Search engine indexing, PageRank algorithm, Server side processing, Client side processing
Digital Literacy	Use of technology Understanding of how technology works	
Careers	Web developer – Search Engine Optimiser – Web Content Manager – Web graphic design – UI design – UX design - IT manager – Network manager – System analysist	