



MAGHULL HIGH SCHOOL – CURRICULUM MAP

| HALF TERM 2.2 Feb - Apr | Lessons 1 - 2 | Lesson 3 - 5 | Lessons 6 - 15 |
|--|---|--|---|
| TOPIC (S) | Computer networks, connections and protocols Assessment and DIRT | Dedicated programming skills | Network security |
| Knowledge & Skills development | End of topic test Action / Response lessons | Gain experience in practical programming using TIME model | Understand the different forms of attack to computer systems. Understand the threat from malware and protect against malware Understand phishing and protect against phishing Understand brute force attacks and protect against brute force attacks. Understand denial of service attacks and protect against denial of service attacks Understand data interception and theft as a security threat and protect against data interception. Understand the concept of SQL injection and protect against SQL injection. Understand ways in which people are a weak point in secure systems. Know how prevention methods help against the various forms of attack |
| Assessment / Feedback Opportunities | Written Assessment | 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 | Malware, Social engineering, Phishing, Brute-force attack, Denial of service attack, Data interception and theft, SQL injection, Penetration testing, Anti-malware software, Firewall, User access level, Password, Physical security | | |
| Digital Literacy | Use of technology Understanding of how technology works | | |
| Careers | Network Administrator – Network System Engineer - Network Programmer/Analyst - Network Systems Manager – Cyber Security | | |