



TOPIC	LEARNING OBJECTIVES	KEY VOCABULARY	LEARNING SEQUENCE	LINKED LEARNING	HOME LEARNING
.			<p>In pupil friendly language. Headings in pupils' books should match text here.</p>	<p>Links to:</p> <ul style="list-style-type: none"> • Year 6 work (for Year 7 plans) • Other topics • Other subjects. <p>(concise and most important links only).</p>	
SLR 1.3 Computer networks, connections and protocols					
SLR 1.3 – Lesson 1, Types of networks	<ul style="list-style-type: none"> • Know what is meant by 'stand-alone' computers. • Know the different types of networks: LAN and WAN. • Understand the advantages of networking. • Understand the implications of networking. • Understand how to program. <p>KEY QUESTION: What are the characteristics of LANs and WANs?</p>	<p>Slides 61-96 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</p>	<p>SLR 1.3 Workbook Complete slides 2 & 3</p> <p>Programming</p>		1.3 Factors that affect the performance of networks.
SLR 1.3 – Lesson 2, Factors that affect the performance of networks	<ul style="list-style-type: none"> • Know what factors affect the performance of networks. • Understand how to program. <p>KEY QUESTION:</p>		<p>SLR 1.3 Workbook Complete slide 4</p> <p>Programming</p>		1.3 Client server and peer-to-peer networks

	<p>What can affect the performance of a network?</p>				
SLR 1.3 – Lesson 3, Client-server and peer-to-peer	<ul style="list-style-type: none"> Know what a client-server model is. Know what a peer-to-peer model is. Understand the different roles computers have in each model. <p>KEY QUESTION: What are the differences between peer-to-peer and client-server networks?</p>		<p>SLR 1.3 Workbook Complete slides 5 & 6</p> <p>Programming</p>		1.3 Hardware to connect a LAN
SLR 1.3 – Lesson 4, Hardware for a LAN	<ul style="list-style-type: none"> Know the hardware needed to connect a LAN. Understand the purpose of each piece of hardware. <p>KEY QUESTION: How do you set up a LAN?</p>		<p>SLR 1.3 Workbook Complete slide 7</p> <p>Programming</p>		1.3 The Internet
SLR 1.3 – Lesson 5, The Internet	<ul style="list-style-type: none"> Understand what The Internet actually is. Understand the term DNS (Domain Name Server). Understand what is meant by the term, 'hosting'. Understand what is meant by the term, 'cloud'. Understand what is meant by the terms 'web server' and 'client'. <p>KEY QUESTION: How does The Internet work?</p>		<p>SLR 1.3 Workbook Complete slides 8 & 9</p> <p>Programming</p>		None for this lesson
SLR 1.3 – Lesson 6, Catch up lesson	<ul style="list-style-type: none"> Complete any outstanding work to this point. <p>KEY QUESTION: How does The Internet work?</p>		<p>SLR 1.3 Workbook Finish slides 8 & 9</p> <p>Programming</p>		1.3 Star and mesh network topologies
SLR 1.3 – Lesson 7, Star and mesh network topologies	<ul style="list-style-type: none"> Know what a star network is. Know what a mesh network is. Understand The Internet is an example of a partial mesh network. 		<p>SLR 1.3 Workbook Complete slides 10-14</p> <p>Programming</p>		1.3 Modes of connection, wired and wireless

	<ul style="list-style-type: none"> • Know the advantages and disadvantages of star and mesh networks. • Understand how to program. <p>KEY QUESTION: Why is a mesh network better than a star network?</p>				
SLR 1.3 – Lesson 8, Modes of connection	<ul style="list-style-type: none"> • Understand that Ethernet is a wired method of connection. • Understand that Wi-Fi and Bluetooth and wireless method of connection. • Understand the benefits and drawbacks of wired versus wireless connections. • Be able to commend a connection type for a given scenario. <p>KEY QUESTION: Which is better, a wired or wireless network?</p>		SLR 1.3 Workbook Complete slides 15-18 Programming		1.3 Wireless encryption
SLR 1.3 – Lesson 9, WiFi encryption	<ul style="list-style-type: none"> • Know the basics of how cryptography can work with a simple key. • Know how wireless devices authenticate with each other before communicating data. • Understand the difference between a private key and public keys. • Understand why private (master) keys are never shared. • Understand how to program. <p>KEY QUESTION: What is the purpose of encryption?</p>		SLR 1.3 Workbook Complete slides 19 & 20 Programming		1.3 The use of IP and MAC addressing
SLR 1.3 – Lesson 10, IP and MAC addressing	<ul style="list-style-type: none"> • Understand the uses of MAC and IP addressing. • Understand the difference between IPv4 and IPv6. • Understand the need for IPv6. • Understand how to program. <p>KEY QUESTION:</p>		SLR 1.3 Workbook Complete slide 21 Programming		1.3 Standards 1.3 Common protocols

	What are the differences between three types of network device addresses?				
SLR 1.3 – Lesson 11, Standards and common protocols	<ul style="list-style-type: none"> Understand the need for standards in computing. Understand the 7 common protocols and what they are used for. Understand how to program. <p>KEY QUESTION: What are standards and protocols?</p>		SLR 1.3 Workbook Complete slide 22 Programming		1.3 The concept of layers
SLR 1.3 – Lesson 12, The concept of layers	<ul style="list-style-type: none"> Know why protocols are layered. Understand how to program. <p>KEY QUESTION: What are the benefits of layering protocols?</p>		SLR 1.3 Workbook Complete slide 23 Programming		None for this lesson
Dedicated independent programming			Progress with individual programming challenges		None for this lesson
Dedicated independent programming			Progress with individual programming challenges		None for this lesson
Dedicated independent programming			Progress with individual programming challenges		Revise what you have learned in this unit