



# **Year 7 Computing Learning Journey**

When?	Understanding	Knowledge	Assessment
<p style="writing-mode: vertical-rl; transform: rotate(180deg); text-align: center;"><b>AUTUMN Term</b></p> <p style="writing-mode: vertical-rl; transform: rotate(180deg); text-align: center;">FIRST Half</p>	<p>Learners should have studied the following:</p> <p>1.1 Data</p> <p>Understand the difference between data and information Understand the relationship between bits and bytes</p> <p>1.2 Inside a Computer</p> <p>Investigate the different types of computers Be able to describe hardware and software</p> <p>1.3 Input Devices</p> <p>Understand the Input – Process – Output cycle</p>	<ul style="list-style-type: none"> <li>• Assistive Technology</li> <li>• Bit</li> <li>• Byte</li> <li>• Computer</li> <li>• Data</li> <li>• Dedicated Computer</li> <li>• Embedded System</li> <li>• General Purpose Computer</li> <li>• Hardware</li> <li>• Information</li> <li>• Input</li> <li>• Input Device</li> <li>• Sensor</li> <li>• Touch Screen</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-reading relevant sections of textbook</li> <li>• Section 1</li> <li>• Computer Systems</li> <li>• Work through textbook theory Pages 1 to 4</li> <li>• Open Discussions</li> <li>• Questions &amp; Answers</li> <li>• Note-taking</li> </ul>

When?	Understanding	Knowledge	Assessment
<p style="writing-mode: vertical-rl; transform: rotate(180deg); text-align: center;"><b>AUTUMN Term</b></p> <p style="text-align: center;">SECOND Half</p>	<p>Learners should have studied the following:</p> <p>1.4 Output Devices</p> <p>Purpose of an output device Types of output device</p> <p>Monitor quality – resolution Pixel (picture element)</p> <p>Assistive technology for output devices</p> <p>1.5 The CPU</p> <p>What does the CPU do?</p> <p>1.6 Memory</p> <p>Types of Memory – RAM &amp; ROM</p>	<ul style="list-style-type: none"> <li>• 3D Printer</li> <li>• Actuator</li> <li>• Assistive Technology</li> <li>• Automatic Captioning Software</li> <li>• Braille Display</li> <li>• Buzzer</li> <li>• Digital Projector</li> <li>• Monitor</li> <li>• Motor</li> <li>• Output</li> <li>• Output Device</li> <li>• Printer</li> <li>• Speaker</li> <li>• Screen Reader Software</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-reading relevant sections of textbook</li> <li>• Section 1</li> <li>• Computer Systems</li> <li>• Work through textbook theory Pages 5 to 8</li> <li>• Open Discussions</li> <li>• Questions &amp; Answers</li> <li>• Note-taking in Exercise Books</li> </ul>

When?	Understanding	Knowledge	Assessment
<p style="writing-mode: vertical-rl; transform: rotate(180deg); text-align: center;"><b>SPRING Term</b></p> <p style="writing-mode: vertical-rl; transform: rotate(180deg); text-align: center;">FIRST Half</p>	<p>Learners should have studied the following:</p> <p>1.7 Internal Storage</p> <p>What does the CPU do?</p> <p>Types of Memory – RAM &amp; ROM</p> <p>1.8 External Storage</p> <p>Internal &amp; External Storage – advantages and disadvantages</p> <p>1.9 Software</p> <p>Software – programs and data</p> <p>1.10 The Operating System</p> <p>The Operating System</p>	<ul style="list-style-type: none"> <li>• Application Software</li> <li>• Backup</li> <li>• Cloud Storage</li> <li>• CPU</li> <li>• Defragmentation</li> <li>• Encryption</li> <li>• Fetch-Decode-Execute Cycle</li> <li>• Malware</li> <li>• Memory</li> <li>• Operating System</li> <li>• Optical Disk</li> <li>• Primary Storage</li> <li>• RAM</li> <li>• Register</li> <li>• ROM</li> <li>• Secondary Storage</li> <li>• Software</li> <li>• System Software</li> <li>• User Interface</li> <li>• Utility Software</li> <li>• Volatile</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-reading relevant sections of textbook</li> <li>• Section 1</li> <li>• Computer Systems</li> <li>• Work through textbook theory Pages 9 to 18</li> <li>• Open Discussions</li> <li>• Questions &amp; Answers</li> <li>• Note-taking in Exercise Books</li> </ul>

When?	Understanding	Knowledge	Assessment
<p><b>SPRING Term</b></p> <p>SECOND Half</p>	<p>Learners should have studied the following:</p> <p>1.9 Software</p> <p>What does the CPU do?</p> <p>Types of Memory – RAM &amp; ROM Internal &amp; External Storage – advantages and disadvantages</p> <p>Software – programs and data</p> <p>1.10 The Operating System</p> <p>The Operating System</p> <p>2.1 Types of Network</p> <p>What is a network?</p> <p>2.2 Wired &amp; Wireless Networks</p> <p>Advantages &amp; disadvantages of networks</p>	<ul style="list-style-type: none"> <li>• Bus Network</li> <li>• Computer Network</li> <li>• Data Collision</li> <li>• Data Packet</li> <li>• DNS (Domain Name Server)</li> <li>• Domain Name</li> <li>• Firewall</li> <li>• Internet</li> <li>• IP Address</li> <li>• LAN</li> <li>• Malware</li> <li>• Mesh Network</li> <li>• Network Interface Card</li> <li>• Network Topology</li> <li>• Password</li> <li>• Phishing</li> <li>• Ring Network</li> <li>• Router</li> <li>• Star Network</li> <li>• Switch</li> <li>• URL</li> <li>• WAN</li> <li>• Wired Network</li> <li>• Wireless Network</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-reading relevant sections of textbook</li> <li>• Section 2</li> <li>• Networks &amp; The Internet</li> <li>• Work through textbook theory Pages 19 to 26</li> <li>• Open Discussions</li> <li>• Questions &amp; Answers</li> <li>• Note-taking in Exercise Books</li> </ul>

When?	Understanding	Knowledge	Assessment
<p><b>SUMMER Term</b></p> <p>FIRST Half</p>	<p>Learners should have studied the following:</p> <p>2.3 Network Topologies</p> <p>What is a network? Advantages &amp; disadvantages of networks</p> <p>2.4 The Internet</p> <p>The Internet – IP &amp; MAC Addresses Wired versus wireless</p> <p>2.5 Network Security Threats</p> <p>2.6 Network Security Measures</p> <p>Security Threats Security Measures</p> <p>2.7 Laws</p> <p>Why are there laws relating to computing?</p> <p>2.8 Censorship &amp; Surveillance</p> <p>What is the Data Protection Act? What is GDPR?</p>	<ul style="list-style-type: none"> <li>• Computer Misuse Act</li> <li>• Cookie</li> <li>• Cyber Crime</li> <li>• Cyberbullying</li> <li>• Data Protection Act</li> <li>• Digital Footprint</li> <li>• eSafety</li> <li>• Grooming</li> <li>• Hacker</li> <li>• Privacy</li> <li>• Social Media</li> <li>• Internet Censorship</li> <li>• Internet Surveillance</li> <li>• Trolling</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-reading relevant sections of textbook</li> <li>• Section 2</li> <li>• Networks &amp; The Internet</li> <li>• Work through textbook theory Pages 27 to 35</li> <li>• Open Discussions</li> <li>• Questions &amp; Answers</li> <li>• Note-taking in Exercise Books</li> </ul>

When?	Understanding	Knowledge	Assessment
<p style="writing-mode: vertical-rl; transform: rotate(180deg); text-align: center;"><b>SUMMER Term</b></p> <p style="writing-mode: vertical-rl; transform: rotate(180deg); text-align: center;">SECOND Half</p>	<p>Learners should have studied the following:</p> <p>2.11 E-Safety</p> <p>Cybercrime Digital Footprint Cyberbullying Trolling Grooming</p> <p>3.1 Planning a Project</p> <p>How to collect and present data?</p> <p>3.2 Collecting Data</p> <p>Where can I find the information? Will it be trustworthy?</p> <p>Efficient searching Copyright Plagiarism Creative Commons</p> <p>3.3 Analysing Data</p> <p>Check sources Ensure information is trustworthy Do CRAB – Date, Clear, Relevant, Authors, Bias</p>	<ul style="list-style-type: none"> <li>• Boolean Operator</li> <li>• Copyright</li> <li>• Creative Commons</li> <li>• Data Collection</li> <li>• Data Logging</li> <li>• Internet</li> <li>• Mind Maps</li> <li>• Operators</li> <li>• Search</li> <li>• Plagiarism</li> <li>• Search Engine</li> <li>• Sensor Information</li> <li>• Data</li> <li>• Reliable Information</li> <li>• Trustworthy</li> <li>• Target Audience</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-reading relevant sections of textbook</li> <li>• Section 3</li> <li>• Collecting &amp; Presenting Data</li> <li>• Work through textbook theory Pages 36 to 43</li> <li>• Open Discussions</li> <li>• Questions &amp; Answers</li> <li>• Note-taking in Exercise Books</li> </ul>