

Year 8 Progress Ladder – Computer Science

Pathway A	Pathway B	Pathway C	Pathway D	COMP 1 - Theory	COMP 2 – Algorithms and Programming	COMP 3 – Digital Literacy
1. Exceeding expected progress	1. Exceeding expected progress	1. Exceeding expected progress	1. Exceeding expected progress	<ul style="list-style-type: none"> ➤ Describe what each part of network hardware does. 	<ul style="list-style-type: none"> ➤ Create complex algorithms with multiple loops within code. 	<ul style="list-style-type: none"> ➤ Implement complex formulas within a spreadsheet. ➤ Implement CSS to a website. ➤ Implement JavaScript to a website.
2. Making expected progress				<ul style="list-style-type: none"> ➤ Demonstrate how to perform a binary subtraction. 	<ul style="list-style-type: none"> ➤ Create complex algorithms with multiple selection statements. 	<ul style="list-style-type: none"> ➤ Implement conditional formatting to your spreadsheet.
3. Below expected progress	2. Making expected progress	<ul style="list-style-type: none"> ➤ Demonstrate complex binary additions. ➤ Describe the differences between lossy and lossless compression. 		<ul style="list-style-type: none"> ➤ Implement variables to store and change values within code. ➤ Implement selection based on sensor within code. 	<ul style="list-style-type: none"> ➤ Implement advanced HTML skills within website. 	
4. Cause for concern	3. Below expected progress	2. Making expected progress		<ul style="list-style-type: none"> ➤ Describe the differences between a LAN and a WAN ➤ Identify network hardware. ➤ Describe the advantages and disadvantages of having a network. 	<ul style="list-style-type: none"> ➤ Test project for robustness. ➤ Create clear next steps within EBI for further iterations. 	<ul style="list-style-type: none"> ➤ Implement a formula within a spreadsheet. ➤ Identify the difference between the WWW and the Internet. ➤ Create a website in HTML.
	4. Cause for concern	3. Below expected progress		<ul style="list-style-type: none"> ➤ Demonstrate basic binary addition. ➤ Demonstrate denary to binary and binary to denary conversions. ➤ Describe advantages and disadvantages of different storage devices and apply for a given scenario. ➤ Identify two different types of software. 	<ul style="list-style-type: none"> ➤ Implement a loop correctly within code. ➤ Understand what a variable is. ➤ Implement a variable within code. ➤ Design simple algorithms using loops, and selection i.e. if statements. 	<ul style="list-style-type: none"> ➤ Identify and explain all the functions of the buttons when sending an email.
		2. Making expected progress		<ul style="list-style-type: none"> ➤ Identify different storage devices. ➤ <i>Understand what the OS is and its basic functionality.</i> ➤ <i>Identify different user interfaces and the advantages and disadvantages.</i> 	<ul style="list-style-type: none"> ➤ Implement a selection statement within code. ➤ Decompose a task. ➤ Create own success criteria. ➤ Test for basic functionality. 	<ul style="list-style-type: none"> ➤ <i>Able to identify different file extensions and which software package they will open in.</i> ➤ <i>Able to identify different file extensions and which software package they will open in.</i>
		4. Cause for concern	<ul style="list-style-type: none"> ➤ Identify different logic gates and understand the affect they have. ➤ <i>Identify the difference between ROM and RAM.</i> ➤ Understand what a network is. 	<ul style="list-style-type: none"> ➤ <i>Create and read basic flowcharts.</i> ➤ <i>Evaluate a project.</i> ➤ <i>Decompose a task.</i> 	<ul style="list-style-type: none"> ➤ <i>Find and use content taken from the World Wide Web.</i> ➤ <i>Can browse the World Wide Web safely.</i> ➤ Create a basic spreadsheet. 	
		3. Below expected progress				

			4. Cause for concern	<ul style="list-style-type: none"> ➤ <i>Understand what a computer is and why they are needed.</i> ➤ <i>Describe what compression is.</i> ➤ <i>Understand why we need binary.</i> 	<ul style="list-style-type: none"> ➤ <i>Understand the need for algorithms.</i> ➤ <i>Create a basic algorithm.</i> ➤ <i>Design a website structure from a given brief.</i> 	<ul style="list-style-type: none"> ➤ <i>Use the correct online and offline software.</i> ➤ <i>Understand how to be safe online.</i> ➤ <i>Can send an email.</i> ➤ <i>Explain what a cell is in a spreadsheet.</i> ➤ <i>Can collect images and videos for website online safely.</i> ➤ <i>Identify what makes a good and a bad website.</i> ➤ <i>Knowledge and application of a variety of keyboard shortcuts.</i>
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Continued content from previous year