

Y4 Computing (Computer Science)

National Curriculum	Knowledge	Skills	Y3 Vocab	Y4 Vocab
<ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. 	<ul style="list-style-type: none"> • Understand we can use variables to hold information. • Understand that the information stored in a variable can change. • Understand how programs can affect or be used in the real world. • Understand how different conditional commands are more appropriate than others. 	<ul style="list-style-type: none"> • Create a variable. • Write code to increase or decrease a variable. • Write code that changes a variable after an event. • Write code that changes a variable after a conditions has been met. • Write code that solves calculation problems. • Design and make an app based on a given criteria. • Write code that loops when a condition is met. • Write programs that use timers. • Write animations that repeat. 	<ul style="list-style-type: none"> • Sequence • Function box • After • Time • Physical System • Control • Animation • Error • If • Then • Condition • Conditional 	<ul style="list-style-type: none"> • Variable • Score • Increase • Decrease • Negative • Assign • Statement • Var_x • Value • Event • True • Repetition • Loop • Simulation • If ... equals
Units to Teach	Key Questions			Maths Links
<ul style="list-style-type: none"> • Block Coding 4a – Introduction to variables. • Block Coding 4b – Repetition & Loops. 	<ul style="list-style-type: none"> • <i>What other games have you played that have a score?</i> • <i>When might a computer need to perform a calculation like number increase by 1?</i> 	<ul style="list-style-type: none"> • <i>Can you describe how the scoring in your balloon pop app worked, using the word 'variable'?</i> • <i>How do you increase the score in those games?</i> 	<ul style="list-style-type: none"> • Addition • Multiplication • Time / Decimals • Negative Numbers 	
Previous Learning		Future Learning		
<ul style="list-style-type: none"> • Know that different actions can happen at different times in a program (k) • Understand that there are certain 'built in' terms, such as if, to help create more complex programs (k) • Make different pieces of code execute at different times. • Use the conditional statement 'if' to instruct objects. • Make different pieces of code execute at different times. 		<ul style="list-style-type: none"> • Begin to understand that there are multiple programming languages used for a variety of reasons. • Understand the web-sites are built using HTML. • Create a simple program in HTML. • Resize and image and set the pixel size of an image in html. • Change the colour, font and size of texts within html. 		

