

## Year 8 COMPUTING

### Overall Intent:

In Year 8, students learn about the hardware of a computer and develop an understanding of the performance impact that it has on a device and also the functionality of the device. Students build on this knowledge to understand the theoretical constructs of how data and instructions are stored and used by a computer. Term two develops learners' spreadsheet skills and HTML coding skills, which builds a platform for the transition to programming block-based and text-based languages in the final half term. Students will revisit the key Year 7 concepts of analysis, decomposition, breaking problems into small elements, planning a solution to the problem and finally, writing a programme code.

	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
<b>Topic/Area of study</b>	HARDWARE	BINARY AND ALGORITHMS	SPREADSHEETS	WEBSITES	CODING	DATABASES
<b>Key learning aims – knowledge and skills</b>	Know the main components of a computer, explain the role of each of the components, compare and contrast hardware specification performance.	Represent numbers using binary patterns, develop abstractions to represent physical objects, write algorithms for everyday tasks, use data patterns to represent physical objects, change variables in an algorithm and predict the effect .	Manipulation of spreadsheets, formulas and functions, use data patterns to represent physical objects, predict changes and model them, adapting code to emulate the outcome.	Learn HTML code structures, methods of effectively searching the internet, names for elements of code and code structure, how to build a website	Identify a problem, plan a solution and create code, use software abstractions that model real world systems, write useful code in a visual language, write useful code in a text-based language, evaluate solutions to given problems, learn de-bugging skills.	Build a database, create a form, query a database, evaluate and synthesise data, use wildcards in searches, use <i>and</i> , <i>not</i> , <i>or</i> in information searches.
<b>Assessment</b>	Baseline Assessment			Produce a website	Create written program solution	End of Year Exam

