



COMPUTING

Curriculum Intent and Overview (Years 7-11)

Intent Statement

Computers have transformed the way we work and both people and machines are changing constantly in the modern world. At BVGS in the Computer Science department we aim for all students to become:

- Problem solvers – have the ability to analyse and solve problems and to design, implement and deploy algorithms to solve real problems
- Logical thinkers – apply the concepts of abstraction, decomposition and logic
- Creative – innovate, analyse and think critically in solving problems
- Aware – understand the impact that technology has on people and on the wider society
- ICT Capable – be able to use computer software applications and programs with confidence and skill to become global citizens.

		MICHAELMAS TERM	LENT TERM	SUMMER TERM
KEY STAGE 3	Year 7	<ul style="list-style-type: none"> • Algorithms - VEX Programming • Hardware & Software 	<ul style="list-style-type: none"> • Data Rep 1 – Binary/Denary • Algorithms - Web Coding - HTML 	<ul style="list-style-type: none"> • Algorithms - Python Programming 1 - Basics
	Year 8	<ul style="list-style-type: none"> • Algorithms - Flowol / Flowcharts • Algorithms - Micro:bit Programming 	<ul style="list-style-type: none"> • Data Rep 2 – Hex/ASCII/Bitmaps • Algorithms - Web Coding 2 – HTML & CSS 	<ul style="list-style-type: none"> • Algorithms - Python Programming 2 – Basics 2 • Spreadsheets
	Year 9	<ul style="list-style-type: none"> • Algorithms - Flowcharts • Computer Crime & Security 	<ul style="list-style-type: none"> • Data Rep 3 – Sound/Logic Gates • Algorithms - Python Programming 3 – More Basics 3 	<ul style="list-style-type: none"> • Issues in Computing • Computer Networks



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KEY STAGE 4	Year 10	<ul style="list-style-type: none">• Theory – Data Representation• Programming – Python Basics	<ul style="list-style-type: none">• Theory – Hardware & Software• Programming – Python Advanced	<ul style="list-style-type: none">• Theory – Issues in Computing• Programming – Python Advanced
	Year 11	<ul style="list-style-type: none">• Theory – Computer Networks• Theory – Cyber Security• Programming - Revision	<ul style="list-style-type: none">• Programming – Programming Project• Database – Access & SQL	<ul style="list-style-type: none">• Theory – revision• Programming - revision