



Academic Learning Plan 2022-2023

Computing – Year 9

Intent : The Computing Department aims to establish, in all students, an enquiring mind and a positive can do approach. Computing is a practical subject that at times requires students to active learns sometimes learning through trial and error, helping to build resilience. Students will leave Wadham School with essential Computing skills for everyday life and an understanding of how to develop those skills further in our ever-changing technological landscape.



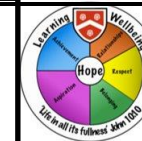
	Term 1	Term 2	Term 3
Year 9 Units	9e Python Programming with sequences of data	9f Physical Computing Programming	9a Animations
Content (National curriculum)	<p>Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms, and data representation</p> <p>Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems</p> <p>Subject content Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems</p> <p>Understand how instructions are stored and executed within a computer system</p> <p>Understand several key algorithms that reflect computational thinking; use logical reasoning to compare the utility of alternative algorithms for the same problem</p> <p>Design, use, and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems</p>	<p>Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation</p> <p>Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems</p> <p>Subject content Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems</p> <p>Understand several key algorithms that reflect computational thinking; use logical reasoning to compare the utility of alternative algorithms for the same problem</p> <p>Understand how instructions are stored and executed within a computer system</p> <p>Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems</p>	<p>Create, reuse, revise, and repurpose digital artefacts for a given audience, with attention to trustworthiness, design, and usability</p>
Literacy	Key words explained through Core knowledge	Key words explained through Core knowledge	Key words explained through Core knowledge
Knowledge organiser	Yes	yes	Yes
Assessment			
GCSE Link			
Homework	NA	NA	NA
CEIAG			
Enrichment			



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	Term 4	Term 5	Term 6
Year 9 Units	9d Representations – Going Audio-visual	9c Cybersecurity	9b Data Science
Content (National curriculum)	Understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits	Understand a range of ways to use technology safely, respectfully, responsibly, and securely, including protecting their online identity and privacy; recognise inappropriate content, contact, and conduct, and know how to report concerns	Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users
Literacy	Key words explained through Core knowledge	Key words explained through Core knowledge	Key words explained through Core knowledge
Knowledge organiser	Yes	yes	Yes
Assessment			
GCSE Link			
Homework	NA	NA	NA
CEIAG			
Enrichment			