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CURRICULUM GRID

Key Stage	UK Curriculum ■ = Covered	Lessons						Projects				
		Get Inspired	Electronics	Programming	Digital I/O	Serial to PC	Serial to Board	Analog Inputs	Analog Outputs	Projects Batch 1	Projects Batch 2	Self-guided projects
Computing												
1 & 2	Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems	■	■	■	■	■	■	■	■	■	■	■
1 & 2	Are responsible, competent, confident and creative users of information and communication technology	■	■	■	■	■	■	■	■	■	■	■
3	Understand the hardware and software components that make up computer systems	■	■	■	■	■	■	■	■	■	■	■
4	Develop and apply their analytic, problem-solving, design, and computational thinking skills	■	■	■	■	■	■	■	■	■	■	■
3	Be responsible, competent, confident and creative users of information and communication technology	■	■	■	■	■	■	■	■	■	■	■
3	Learn to evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems	■	■	■	■	■	■	■	■	■	■	■
4	Develop their capability, creativity and knowledge in computer science, digital media and information technology	■	■	■	■	■	■	■	■	■	■	■
1	Use technology purposefully to create, organise, store, manipulate and retrieve digital content		■		■				■			
3	Understand and apply the fundamental principles and concepts of computer science, including abstraction logic, algorithms and data representation			■					■			
1	Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions	■		■	■							
2	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts			■	■	■	■			■	■	
2	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs							■				
3	Understand simple Boolean logic and some of its uses in circuits and programming				■					■	■	
1	Create and debug simple programs			■	■			■				
1	Recognise common uses of information technology beyond school	■		■		■						
1	Use logical reasoning to predict the behaviour of simple programs		■	■		■						
3	Use logical reasoning to compare the utility of alternative algorithms for the same problem							■		■		
3	Understand several key algorithms that reflect computational thinking							■		■		
3	Understand how binary digits data of various types can be represented and manipulated digitally					■			■			
3	Understand how instructions are stored and executed within a computer system					■	■	■	■			
3	Make appropriate use of data structures							■	■			
3	Understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers											
3	Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems							■	■			
2	Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information								■			■
2	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output			■	■	■	■			■	■	
3	Learn to analyse problems in computational terms								■	■	■	■
3	Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices								■	■		
1 & 2	Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems								■			■

