



Kingsland CE Primary School



A Rich and Vibrant Computing Curriculum

KS1 National Curriculum	KS2 National Curriculum
<p>Pupils should be taught to:</p> <ul style="list-style-type: none">• understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions• create and debug simple programs• use logical reasoning to predict the behaviour of simple programs• use technology purposefully to create, organise, store, manipulate and retrieve digital content• recognise common uses of information technology beyond school• use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	<p>Pupils should be taught to:</p> <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• understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content• select, use and combine a variety of software (including internet services) 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• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Curriculum A

Class	Computer systems and networks	Creating media	Programming A	Data and Information	Creating media	Programming B
Class 1	Online safety	Technology at home and at school	Programming Bee-Bots			
Class 2	Technology around us (1.1)	Digital writing (1.5)	Moving a robot (1.3)	Grouping data (1.4)		
Class 3	Connecting computers (3.1)	Stop-frame animation (3.2)	Sequencing sounds (3.3)	Branching databases (3.4)		
Class 4	The internet (4.1)		Repetition in shapes (4.3)	Data logging (4.4)	Photo editing (4.5)	
Class 5	Communication and collaboration (6.1)	Webpage creation (6.2)	Variables in games (6.3)	Introduction to spreadsheets (6.4)		

Curriculum B

Class	Computer systems and networks	Creating media	Programming A	Data and Information	Creating media	Programming B
Class 1	Online safety	Technology at home and at school	Programming Bee-Bots			
Class 2	Information technology around us (2.1)	Digital painting (1.2)	Robot algorithms (2.3)	Pictograms (2.4)		
Class 3		Digital photography (2.2)			Desktop publishing (3.5)	Programming quizzes (2.6) Events and actions in programs (3.6)
Class 4	Systems and searching (5.1)	Video production (5.2)	Selection in physical computing (5.3)	Flat-file databases (5.4)		
Class 5					Introduction to vector graphics (5.5) 3D modeling (6.5)	Selection in quizzes (5.6) Sensing movement (6.6)

NCEE Teach Computing Units of Work

	Computing systems and networks ¹	Creating media	Programming A	Data and information	Creating media	Programming B
Year 1	Technology around us (1.1)*	Digital painting (1.2)	Moving a robot (1.3)	Grouping data (1.4)	Digital writing (1.5)	Programming animations (1.6)
Year 2	Information technology around us (2.1)	Digital photography (2.2)	Robot algorithms (2.3)	Pictograms (2.4)	Digital music (2.5)	Programming quizzes (2.6)

	Computing Systems and Networks	Creating Media	Programming A	Data and Information	Creating Media	Programming B
Year 3	Connecting computers (3.1)*	Stop-frame animation (3.2)	Sequencing sounds (3.3)	Branching databases (3.4)	Desktop publishing (3.5)	Events and actions in programs (3.6)
Year 4	The Internet (4.1)	Audio production (4.2)	Repetition in shapes (4.3)	Data logging (4.4)	Photo editing (4.5)	Repetition in games (4.6)
Year 5	Systems and searching (5.1)	Video production (5.2)	Selection in physical computing (5.3)	Flat-file databases (5.4)	Introduction to vector graphics (5.5)	Selection in quizzes (5.6)
Year 6	Communication and collaboration (6.1)	Web page creation (6.2)	Variables in games (6.3)	Spreadsheets (6.4)	3D modelling (6.5)	Sensing movement (6.6)

Class 2 Year A	Class 2 Year B	Class 3 Year A	Class 3 Year B	Class 4 Year A	Class 4 Year B	Class 5 Year A	Class 5 Year B
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