COMPUTING COMPOSITE KNOWLEDGE COVERAGE
KEY STAGE 2

Intent: To develop learners' digital literacy, and build skills in computer science and information technology, through engaging lessons which encourage independence, enjoyment and creative thinking.

		Cycle A (2023-2024)	Cycle B (2024-2025)	Cycle C (2025-2026)	Cycle D (2026-2027)	Running throughout each cycle
Autumn	1	• Physical Computing **Topic: Programming** *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.* ***National Curriculum coverage to be taught at differentiated Developmental steps.***	• Creating media **Topic: Web pages** *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 rage of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.* ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Programming **Topic: Sequencing sounds** *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.* ***National Curriculum coverage to be taught at differentiated Developmental steps.***	• Creating media **Topic: Introduction to vector graphics** *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* ***National Curriculum coverage to be taught at differentiated Developmental steps.***	*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 responsible; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact*
	2	• Creating media **Topic: Audio production** *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 search technologies effectively, appreciate how results are selected and ranked, and be discerning*	• Data and Information **Topic: Data logging** *Use sequence, selection and repetition in programs; work with variables and various forms of input and output.* ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Creative media **Topic: Video production** *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 search technologies effectively, appreciate how results are selected and ranked, and be discerning*	• Programming **Topic: Sensing movement** *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*	

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		in evaluating digital content ***National Curriculum coverage to be taught at differentiated Developmental steps***		*in evaluating digital content* ***National Curriculum coverage to be taught at differentiated Developmental steps***	*programs.* ***National Curriculum coverage to be taught at differentiated Developmental steps***	
Spring	**1**	• Data and information **Topic: Databases** *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* ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Computing Systems and Networks **Topic: Communication & Collaboration** *Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. 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.* ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Computer Systems and Networks **Topic: The Internet** *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.* ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Programming **Topic: Selection in quizzes** *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.* ***National Curriculum coverage to be taught at differentiated Developmental steps.***	
	2	• Creating Media Topic: 3D Modelling *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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content* ***National Curriculum coverage to be***	• Programming **Topic: Repetition in shapes** *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.* ***National Curriculum***	• Programming **Topic: Variables in games** *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.* ***National Curriculum***	• Creating Media **Topic: Stop-frame animation** *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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content*	

		taught at differentiated Developmental steps	***coverage to be taught at differentiated Developmental steps***	***coverage to be taught at differentiated Developmental steps***		
Summer	**1**	• Computing Systems and Networks **Topic: Connecting Computers** *Use sequence, selection and repetition in programs; work with variables and various forms of input and output. 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.* ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Creating media **Topic: Photo editing** *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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content* ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Data and Information **Topic: Databases** *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* ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Computing Systems and Networks **Topic: The Internet** *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* ***National Curriculum coverage to be taught at differentiated Developmental steps***	
	2	• Programming **Topic: Events & Actions in Programs** *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.* ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Programming **Topic: Repetition in games** *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.* ***National Curriculum coverage to be taught at differentiated Developmental steps.***	• Creating Media **Topic: Desktop Publishing** Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. ***National Curriculum coverage to be taught at differentiated Developmental steps***	• Data and Information **Topic: Spreadsheets –** *Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content* ***National Curriculum coverage to be taught at differentiated Developmental steps***	

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