

COMPUTING COMPOSITE KNOWLEDGE COVERAGE KEY STAGE 3

Intent: Provision of a knowledge rich curriculum supported by practical real-world applications to equip students to become creative, responsible and safe users of technology.

		Cycle A (2023-2024)	Cycle B (2024-2025)	Cycle C (2025-2026)	Running throughout each cycle
A u t u m	1	<p>Digital Literacy</p> <p>Topic: Online Safety</p> <p>National Curriculum Links: 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. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> Digital Literacy <p>Topic: Bias and Reliability</p> <p>National Curriculum Links: 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. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> Digital literacy <p>Topic: Cybersecurity</p> <p>National Curriculum Links: 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. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> Digital Literacy <p>SMART</p> <p>Logins and passwords</p> <p>Using digital devices</p> <p>National Curriculum Links: 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</p>
	2	<ul style="list-style-type: none"> Information Technology & Digital Literacy <p>Topic: Using Media for a Cause</p> <p>National Curriculum Links: 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. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> Information Technology & Digital Literacy <p>Topic: Webpages</p> <p>National Curriculum Links: Create, reuse and repurpose digital artefacts for a given audience with attention to trustworthiness, design and usability. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> Information Technology & Digital Literacy <p>Topic: Pictures and Sound</p> <p>National Curriculum Links: Understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits. To be taught at differentiated Developmental steps</p>	
S p r i n g	1	<ul style="list-style-type: none"> Computer Science <p>Topic: Computer Networks and the Internet</p> <p>National Curriculum Links: Understand the hardware and software components that make up computer systems, and how they communicate with one another and other systems. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> Computer Science <p>Topic: Hardware, Software & A.I.</p> <p>National Curriculum Links: Understand the hardware and software components that make up computer systems, and how they communicate with one another and other systems Understand simple Boolean logic and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> Computer Science <p>Topic: Digital Devices</p> <p>National Curriculum Links: Understand the hardware and software components that make up computer systems, and how they communicate with one another and other systems; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> Information Technology <p>Saving work</p> <p>Retrieving work</p> <p>Files and folders</p> <p>National Curriculum Links: Undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals</p>

	2	<ul style="list-style-type: none"> • Programming <p>Topic: Algorithms</p> <p>National Curriculum Links: Understand several key algorithms that reflect computational thinking; use logical reasoning to compare the utility of alternative algorithms for the same problem. Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures; design and develop modular programmes that use procedures or functions. To be taught at differentiated Developmental steps.</p>	<ul style="list-style-type: none"> • Programming <p>Topic: Algorithms</p> <p>National Curriculum Links: Understand several key algorithms that reflect computational thinking; use logical reasoning to compare the utility of alternative algorithms for the same problem. Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures; design and develop modular programmes that use procedures or functions. Understand simple Boolean logic and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> • Programming <p>Topic: Algorithms</p> <p>National Curriculum Links: Understand several key algorithms that reflect computational thinking; use logical reasoning to compare the utility of alternative algorithms for the same problem. Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures; design and develop modular programmes that use procedures or functions. Understand simple Boolean logic and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers. To be taught at differentiated Developmental steps</p>	
S u m m e r	1	<ul style="list-style-type: none"> • Information Technology <p>Topic: Data Collection</p> <p>National Curriculum Links: 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. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> • Information Technology <p>Topic: Modelling Data</p> <p>National Curriculum Links: 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. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> • Information Technology <p>Topic: Presenting Data</p> <p>National Curriculum Links: 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. To be taught at differentiated Developmental steps</p>	
	2	<ul style="list-style-type: none"> • Digital Media <p>Topic: Art & Graphics</p> <p>National Curriculum Links: Create, reuse and repurpose digital artefacts for a given audience with attention to trustworthiness, design and usability. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> • Digital Media <p>Topic: App Development</p> <p>National Curriculum Links: Create, reuse and repurpose digital artefacts for a given audience with attention to trustworthiness, design and usability. To be taught at differentiated Developmental steps</p>	<ul style="list-style-type: none"> • Digital Media <p>Topic: Animation</p> <p>National Curriculum Links: Create, reuse and repurpose digital artefacts for a given audience with attention to trustworthiness, design and usability. To be taught at differentiated Developmental steps</p>	

