



Long Term Plan

Subject: Computing

Scheme: Kapow

Cycle A – 2025-26; Cycle B – 2024-2025

Cycle B

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1 / 2 Cycle B	KSI Computing: What Is A Computer Exploring what a computer is by identifying how inputs and outputs work and how computers are used in the wider world to design their own computerised invention.	Y2 : Computing: Word Processing Skills Developing touch typing skills, learning keyboard shortcuts and simple editing tools.	KSI Computing: Algorithms and Debugging Developing an understanding of; what algorithms are, how to program them and how they can be developed to be more efficient, introduction of loops.	Programming: Scratch JR Exploring what 'blocks' do, using the app 'ScratchJr,' by carrying out an informative cycle of predict > test > review. Programming a familiar story and an animation of an animal, children make their own musical instrument by creating buttons and recording sounds as well as following an algorithm to record a joke.	Stop Motion Animation Using Tablets Learning how to create simple animations from storyboarding creative ideas	KSI Computing: Data Handling Learning how data is collected, used and displayed and the scientific learning of the conditions needed for plants and humans, to survive.
	Online Safety L1 (Year 2 unit)	Online Safety L2 (Year 2 unit)	Internet safety day (Year 2 unit)	Online Safety L3 (Year 2 unit)	Online Safety L4 (Year 2 unit)	
Year 3 / 4 Cycle B	KS2 Computing: Collaborative Learning Learning how to work collaboratively and exploring a range of collaborative tools	KS2 Computing: Further Scratch Programming Revisiting the key features and beginning to use 'variables' in code scripts.	Microsoft Unit: Website Design (using Office 365) Learning how web pages and sites are created and how to embed media and links	Skills showcase: HTML Editing the HTML of a web page to change the layout of a website and the text and images.	KS2 Computing: Computational Thinking Solving problems effectively using the four areas of abstraction, algorithm design, decomposition and pattern recognition.	KS2 Computing: Weather Data Handling Researching and storing data on spreadsheets and designing a weather station.
	Online Safety L1 (Y4 unit)	Online Safety L2 (Y4 unit)	Internet safety day	Online Safety L3 (Y4 unit)	Online Safety L4 (Y4 unit)	Online Safety L5 (Y4 unit)

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5/6 Cycle B	<p>Bletchley Park and the history of computers Discovering the history of Bletchley Park, historical figures and the importance of code breaking and passwords. Designing a computer of the</p> <p>future and creating an audio advert for their designs.</p>	<p>AI Exploring what AI is and how it generates text, images and code. Learning about creating and refining prompts to improve AI responses while also considering the</p> <p>ethical implications of AI and its potential to replace human roles.</p>	<p>Data handling 1: Big Data 1 Understanding about the use of big data including barcodes, QR codes, infrared, and RFID technologies. Children will create and scan their own QR codes, manipulate real-time data in spreadsheets, and present their findings. They also analyse transport data to understand its usefulness to commuters.</p>	<p>Programming: Intro to Python Learning the fundamentals of the programming language of Python, they will test, change and explain what their program does. Children use loops and explain what repeats do and what the parts of the loop do while recognising that computers choose random numbers and decompose the program into an algorithm.</p>	<p>Data handling 2: Big Data 2 Understanding data usage through the use of mobile data vs WiFi, the Internet of Things, and big data. Identifying high/low data activities and preparing presentations on using Big Data/IoT to improve school efficiency while respecting privacy.</p>	<p>Skills showcase: Inventing a product Designing a new electronic product and using CAD software to design appropriate housing for it. Developing skills in website design, video editing, and persuasive language to promote their product. Evaluating and adapting existing code, debugging programs, and searching for accurate information online.</p>
	Online Safety L1 (Y6 unit)	Online Safety L2 (Y6 unit)	Online Safety L3 (Y6 unit)	Online Safety L4 (Y6 unit)	Online Safety L5 (Y6 unit)	Online Safety L6 (Y6 unit)

Cycle A

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1 / 2 Cycle A	<p>Improving mouse skills Knowing how to log in and navigate around a computer, developing mouse skills, learning how to drag, drop, click and control a cursor to create works of art inspired by Kandinsky and self-portraits</p>	<p>KSI Y1 Computing: Algorithms Unplugged Algorithms, decomposition and debugging are made relatable to familiar contexts, following directions, learning why instructions need to be specific</p>	<p>KSI Computing: Skills Showcase: Rocket to the Moon Developing keyboard and mouse skills through designing, building and testing. Creating a digital list of materials, using drawing software and recording data.</p>	<p>KSI Computing: Programming Bee Bot Introducing programming through the use of a Bee-Bot and exploring its functions.</p>	<p>KSI Y1: Computing: Digital Imagery (using office 365) Taking and editing photos, searching for and adding images to a project.</p>	<p>KSI Computing: Introduction to Data Learning what data is and the different ways it can be represented. Learning why data is useful and the ways it can be gathered and recorded.</p>
	Online Safety L1 (Y1 unit)	Online Safety L2 (Y1 unit)	Internet safety day	Online Safety L3 (Y1 unit)	Online Safety L4 (Y1 unit)	Online Safety L5 (Y1 unit)

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3 / Cycle A	Computing systems and networks – Connecting computers (Teach computing)	KS2 Computing: Scratch Exploring the programme Scratch, following the predict > test > review cycle. Learning about 'loops' and programming an animation, story and game.	KS2 Computing: Journey Inside a Computer Assuming the role of computer parts and creating paper versions of computers to consolidate understanding of how a computer works.	KS2 Y3: Video Trailers Using iPads Developing digital video skills to create trailers, with special effects and transitions.	Lower KS2 Computing: Emailing (using office 365) Sending emails with attachments and understanding what cyberbullying is.	Y3: KS2: Computing: Databases (using office 365) Learning about records, fields and data and sorting and filtering data.
	Online Safety L1	Online Safety L2	Internet safety day	Online Safety L3	Online Safety L4	
Year 5/6 (cycle A)	KS2 Computing: Search Engines Learning about how page rank works and how to identify inaccurate information.	Ks2 Computing: Music Programming with Sonic Pi Building-on programming and music skills to create different sounds, beats and melodies which are put to the test with a Battle of the Bands performance	Data handling: Mars Rover 1 Learning about the Mars Rover, exploring how and why it transfers data including instructions, and how messages can be sent using binary code.	Ks2 Computing: Micro:bit Programming Creating algorithms and programs that are used in the real world. Using the 'predict, test and evaluate' cycle to create and debug programs with specific aims.	Ks2 Computing: Stop Motion Studio Creating animations, storyboard ideas and decomposing a story into small parts before putting together to create the illusion of a moving image.	Skills showcase: Mars Rover 2 Learning about pixels and binary, creating a pixel picture and saving a JPEG as a bitmap to understand the transfer of image data. Children will learn about the 'fetch, decode, execute' cycle and its real-world applications while beginning to use 3D design tools.
	Online Safety L1 (Y5 unit)	Online Safety L2 (Y5 unit)	Internet safety day	Online Safety L3 (Y5 unit)	Online Safety L4 (Y5 unit)	Online Safety L5 (Y5 unit)