



Computing

Core Content – Knowledge & Skills Progression

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
EYFS	Computing Systems and Networks: Using a Computer	Programming and Instructions	Computing Systems and Networks: Exploring Hardware	Programming Bee Bots	Data Handling: An Introduction to Data	
Skills – End of Year Expectations	I know what keyboard is and can finding relevant keys. I know how to log on and off I know what a mouse is and how to control it (clicking, double clicking, dragging) I know how to give instructions and following simple instructions I understand that computers use lists of simple instructions to operate (algorithms) I can recognise and name basic pieces of hardware (mouse, keyboard, computer, tablet, monitor) I know how to use a device (tablet) to take photographs I can use Bee-Bots to programme a series of basic instructions* I know how to ‘de-bug’ a programme when it goes wrong I understand how to sort and catagorise items I can create branching databases (physical, using ‘yes’ ‘no’ questions) I know how to study and interpret simple pictograms					
KS1 Cycle A	Computing systems and networks: Improving mouse skills	Programming 1: Algorithms unplugged	Skills showcase: Rocket to the moon	Programming 2: Bee-Bot	Creating media: Digital imagery Online Safety 1	Data handling: Introduction to data

KS1 Cycle B	Computing systems and networks 1: What is a computer?	Programming 1: Algorithms and debugging	Computing systems and networks 2: Word processing	Programming 2: ScratchJr	Creating media: Stop motion	Data handling: International Space Station Online Safety 2
Skills – End of Year Expectations	<p>I know how to log in and navigate around a computer.</p> <p>I will develop mouse skills, learning how to drag, drop, click and control a cursor.</p> <p>I will understand why instructions need to be very specific in computing.</p> <p>I will develop keyboard skills and develop touch typing skills</p> <p>I will understand about word processing</p> <p>I will understand some important keyboard shortcuts (undo), as well as simple editing tools within a word processor including: bold, italics, underline and font colour as well as how to import images.</p> <p>I can create digital lists</p> <p>I understand how to use basic drawing software</p> <p>I can record data electronically.</p> <p>I will understand early programming skills</p> <p>Know how to take and enhance photos using a range of editing tools</p> <p>Know how to search for and add images to a project</p> <p>I will understand what data is and the different ways that it can be represented</p> <p>I will develop an understanding of why data is useful, how it can be used and ways in which it can be gathered and recorded both by humans and computers.</p> <p>I will develop an understanding of online safety and recognise ways to stay safe on the internet</p> <p>I know and understand what is appropriate to share online</p> <p>I will explore programming with 'ScratchJr,' carrying out an informative cycle of predict > test > review.</p> <p>I will know how to storyboarding and simple animation creation using stop motion</p>					
LKS2 – Cycle A	Computing systems and networks 1: Networks	Programming: Scratch	Computing systems and networks 2: Emailing	Computing systems and networks 3: Journey inside a computer	Creating media: Video trailers	Data handling: Comparison cards databases Online safety 3
LKS2 – Cycle B	Computing systems and networks:	Programming 1: Further coding with Scratch	Creating media: Website design	Skills showcase: HTML	Programming 2: Computational thinking	Data handling: Investigating weather

	Collaborative learning					Online safety 4
Skills – End of Year Expectations	<p>Know how devices communicate and information is shared. I can identify components of a computer network I will understand how to use repetition or ‘loops’ and building upon skills to program; an animation, a story and a game. I can send and edit emails, add attachments, and recognise the etiquette of sending emails. I will understand how a computer works, as well as identifying similarities and differences between various models I will develop filming and editing video skills through the storyboarding and creation of book trailers. I will understand what a database is, and the meanings of records, fields and data. I can handle data and begin to use sort and filter. I can research and store data using spreadsheets I can understand online safety, ways to deal with upsetting online content, protecting our personal information on social media using privacy settings. I can recognise ‘fake news’ and understand the need to fact-check information. I can develop research skills using search engines I will continue developing word processing skills I understand how web pages and web sites are created I will have a chance to create my own unpublished website, exploring how to change layouts, embed images and videos and link between pages. I can edit the HTML and CSS of a web page to change the layout of a website and the text and images.</p>					
UKS2 – Cycle A	Programming 1: Music	Computing systems and networks: Search engines	Data handling: Mars Rover	Creating media: Stop motion animation	Programming 2: Micro:bit	Skills showcase: Mars Rover Online safety 5
UKS2 – Cycle B	Computing systems and networks: Bletchley Park	Programming: Intro to Python	Data handling 1: Big Data	Creating media: History of computers	Data handling 2: Big Data	Skills showcase: Inventing a product Online safety 6

Skills – End of Year Expectations	<p> I will develop online search skills and find accurate information I can apply programming skills to create sounds and melodies I can look at data types reading binary numbers, and undertaking binary addition I can use different programming interfaces to create animations, recognise inputs/outputs, choose appropriate blocks, and break programs down into smaller steps I understand digital storyboarding ideas, taking photographs and editing to create a video animation. I know about pixels, creating a pixel picture and saving a JPEG as a bitmap I am beginning to use 3D design tools I will continue to learn about potential online dangers and safety. I understand what is meant by ‘computer science’ and decode information in the context of Bletchley Park. I can use Python to test, change and explain what a program does. I can recognise that computers choose random numbers and decompose programmes into an algorithm. I can explain the use of barcodes, QR codes, infrared, and RFID technologies and create and scan their own QR codes I Can manipulate real-time data in spreadsheets I can write, record and edit audio I understand data usage using mobile data vs WiFi I am begin using CAD software I can develop web design skills </p>
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