



Banks Road Primary School Computing Long Term Curriculum Plan

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	DL		IT		CS	
Nursery	<p style="text-align: center;">Using Technology Safely Pupils learn to recognise who we can trust with information and how that links to the online world. Adults, behaviour, friends, information, kind, online, trust.</p>		<p style="text-align: center;">Understanding the parts of a computer Pupils learn to recognise the different parts of a computer. Computer, connected, headphones, keyboard, monitor, online, printer, technology.</p>		<p style="text-align: center;">Using Programming Devices Pupils use different types of devices & to give and follow instructions. Backwards, camera, devices, forwards, instructions, play, record, robot.</p>	
	IT & DL		IT		CS	
EYFS	<p style="text-align: center;">I am a Super Surfer Pupils will learn to recognise on and offline technology and how to use it safely with the help of trusted adults Button, icon, keyboard, laptop, mouse, PC, smartphone, touch screen.</p>		<p style="text-align: center;">Look What I Can Do Pupils will learn that information can be used and created using technology. Button, icon, image, keyboard, mouse, text, touch screen, video.</p>		<p style="text-align: center;">I am a Computer Scientist Pupils will learn cause and effect in computing. <i>(I press this button – this is the result)</i> Button, directions, icon, input, keyboard, mouse, output.</p>	
	IT	DL	CS	CS	IT	IT
1	<p style="text-align: center;">Basic Computing Skills Pupils will learn how to log in and shut down a computer accurately and begin to understand the importance of a password. Backspace, caps lock, enter, keyboard, log in,</p>	<p style="text-align: center;">Using text-based programs to process and format text and Images Pupils will learn how to use a word processing program to write and format text. They will add digital images and consider the audience for their work.</p>	<p style="text-align: center;">Unplugged Algorithms Pupils learn what an unplugged algorithm is and create and apply them to an on-screen program. Algorithm, supplication, code, debug, instruction, program, software.</p>	<p style="text-align: center;">Programming, coding & Robotics Pupils explore how to control both physical and virtual robots with a sequence of commands. Algorithm, backwards, Beebot, clear, forwards, left, program, right, left.</p>	<p style="text-align: center;">Digital Painting Pupils will explore how to use the different tools and features in a computer based paint program to create a variety of effects. Paint program, tool, paint brush, erase, fill, undo.</p>	<p style="text-align: center;">Presenting Information Pupils will consider a variety of ways to present cross curricular information digitally, and compare the advantages and disadvantages with paper-based content. Delete, font, image, import, photograph, text.</p>

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	log off, password, shift.	Backspace, caps lock, enter, keys, log in, shift, shut down.				
	IT	CS	CS	IT	IT	IT & DL
2	<p>What is a Computer? Pupils will learn how to identify a computer's different parts and talk about the role computers play in our society. Computer, desktop, input, laptop, monitor, mouse, output.</p>	<p>Coding & Algorithms Pupils build on their knowledge of what an algorithm is and how we can program computers to use algorithms. They will use a variety of block based coding programs to create algorithms, solve programs and debug errors. Algorithm, blocks, bug, code, debugging, repeat, sequence, sprites.</p>	<p>Programming using Scratch Jr Pupils will use the Scratch Jr app to write their own block code for several different projects. These can easily be made cross curricular. Blocks, bug, code, debugging, repeat, sequence, sprites, tinkering.</p>	<p>Data collection and representation using Pictograms Pupils will explore how to transfer physical data from a tally chart into a digital pictogram. They will compare the difference with creating a physical pictogram. Chart, collect, count, data, graph, pictogram, tally.</p>	<p>Modifying Text and Images Pupils will look at software they can use to present their work. They will expand on previous skills such as using a keyboard, formatting text and how to use images in their work. Align, bold, font, italic, keyboard, shift, text.</p>	<p>Staying Safe Online Pupils will use the CEOP Jessie & Friends materials to explore using the online world safely, including sharing pictures and online gaming. They will use the skills developed in other units to create digital content about online safety. Trusted adult, online, personal information, public, sharing, password, website, app.</p>
	IT	CS	CS	IT	CS	IT /DL
3	<p>Composing Emails Pupils will explore the different</p>	<p>Introduction to Scratch Pupils will learn how to program</p>	<p>Prediction and Debugging Pupils will learn how to use prediction</p>	<p>Altering Media Pupils to look at the skills behind taking a good photograph and</p>	<p>Inside a computer Pupils will identify the different parts of a computer and explore</p>	<p>Publishing Online Content Pupils will be introduced to graphic</p>



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	<p>advanced features of Microsoft Word. They will also use these skills to compose an email.</p> <p>Attachment, clickbait, Email, reliable, source, virus, website</p>	<p>sprites using a range of blocks to add animation, sound and other effects</p> <p>Algorithm, computational thinking, costumes, input, output, programming, repetition, selection, sequence.</p>	<p>when coding to test and debug written programs.</p> <p>Algorithm, computational thinking, debugging, decomposition, input, output, prediction, programming, sequence, sprite.</p>	<p>how these photos can be edited in various ways.</p> <p>Camera, consent, image, pixel, portfolio, theme.</p>	<p>how computers have evolved over the last 100 years.</p> <p>Input device, memory, microprocessor, motherboard, network, output device, router, switch.</p>	<p>design, marketing, and will develop their publishing skills.</p> <p>Crop, effect, elements, filter, graphic design, publishing, social media.</p>
	IT	CS	CS	IT	DL	IT
4	<p>Branching Databases Pupils learn about the concept of a branching database and create their own using presentation software.</p> <p>And, branching database, data, filed, information,</p>	<p>Repetition and Forever Loops Pupils learn to use repetition and loops when coding.</p> <p>Algorithm, code, debug, forever, loop, repeat, sequence, variable.</p>	<p>Designing a Game Pupils use their knowledge of Scratch to create a Formula One style game.</p> <p>Algorithm, debugging, input, programming, repetition, selection, sequence, tinker.</p>	<p>Making a Special Effects movie Pupils create their own videos and apply special effects to them.</p> <p>Audio, CGI, green screen, image, special effects, text, video.</p>	<p>Smarter Searching and Online Safety Pupils to gain awareness of the best ways to use a search engine and to continue to develop awareness of online dangers.</p> <p>Image, keyword, personal data, reliable, search engine, sharing, website.</p>	<p>Pixel Art Pupils create a piece of pixel artwork using a grid format.</p> <p>Algebra, binary, columns, formula, pixel, rows, spreadsheet.</p>

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	or, organise, search, sort.					
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5	<p>Create & Search A Database Pupils will use Excel to create and search a database. Database, ascending, descending, filed, information, keyboards, record, retrieval, search.</p>	<p>Using Variables Pupils identify different types of variables. what conditionals are and understand how variables are used in computer programming. Abstraction, algorithm, conditionals, decomposition, logic, loops, operators, sequence, variable.</p>	<p>Coding Using Micro:Bits Pupils to program Micro:Bit to make a variety of practical and usable devices. Algorithm, block, conditionals, forever loop, Micro:Bit, scroll, variable.</p>	<p>Stop Motion Animation Pupils will learn about all aspects of stop frame animation. They will storyboard their own story before using a software package to create their own stop frame animation. Animate, animation, editing, frame, image, stick figure, stop frame animator.</p>	<p>The Internet & The World Wide Web In this unit the children will learn the difference between the WWW and the internet. They will also understand what is meant by IP address. LAN, modem, network, router, server, switch, WAN.</p>	<p>3D Modelling Children will learn to design models using online CAD software. CAD, orbit, pan, push/pull tool, select, template, zoom.</p>
6	<p>Creating Formula in Excel Pupils will learn how to organise data and make calculations using the application Microsoft Excel. Auto Sum, cell, column, formulae, graph,</p>	<p>Edublocks- Introduction to Python Pupils will learn how block- based programming compares to written code. Pupils will be introduced to Python as a text-</p>	<p>Programming a Game Using the application Scratch, pupils will create an interactive, playable game using conditionals, variables, and operators. Abstraction, algorithm, debug,</p>	<p>Creating a Podcast Pupils will produce a podcast based on a piece of writing from another curriculum area or aspect of school life. Audio, download, edit, MP3, Podcast, Record, Refine.</p>	<p>HTML Pupils will learn how to design a multi-page informational website, considering the layout, user experience and key features including home page, links and images. Heading, HTML, images, layout,</p>	<p>Social Media & Being Safe Online Pupils will learn about the purpose of social media and different aspects of social media and how to use it safely. Forum, in-app purchase, PEGI, permission, ratings,</p>

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	merge, row, spreadsheet.	based method of programming. Conditional statement, function, iteration, loop, RGB values, selection, sequence, variable.	decomposition, logic, operators, sequence, variable.		source code, text, website.	social media, social networks.
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