

Computing Long-term Overview 24/25	AUTUMN	SPRING	SUMMER
Nursery	 Children will learn: 1. to play simple games on the interactive whiteboard by pressing buttons. 2. to mark make on paint software on the interactive whiteboard. 3. to recognise a selection of digital devices. tTo handle equipment responsibly with a level of care. 4. to know how to switch something on or off. 5. how to work equipment: turn on, swipe iPad, move a mouse, press a button on a keyboard. 	 Children will learn: 1. to make a bee-bot move. 2. to use bee-bots to explore moving objects for a purpose. 3. to be able to use the play, rewind, stop and pause button on a CD player, karaoke machine, iPad or speaker when playing music. 4. to use CD players, iPad or speakers to play music. 	 Children will learn: 1. to be able to name different types of technology that they have experienced or seen people around them use before (e.g., Computer, phone, tablet, laptop etc). 2. to recognise and name different types of technology in the environment and at home. 3. to explore using cameras on iPad to film and take photographs. 4. to be able to take a photograph on a camera or iPad.
Reception	 Children will learn: to talk about the different purposes of some technology and how it helps them in their daily lives. to say that a device is a piece of equipment the purposes of some technological features (e.g., Keyboard, monitor, camera, power button, apps etc). to type simple words or other familiar phrases using a keyboard. 	 Children will learn: to use a simple computer programme with increasing control. to take part in simple programming activities with age-appropriate equipment eg. bee-bots. to follow simple instructions/create simple instructions using bee-bots. to use technology to complete simple programmes. 	 Children will learn: to recognise that we can retrieve information from different technology sources. to use search engines to find out information during class discussions. to access content in a range of formats e.g., image, video, audio. to begin to understand how to stay safe when online. Discussions around e-safety through circle time/PSHE curriculum. To know

	 to use various tools on Paint such as brushes, pens, erasers, fill, stamps and shapes. to explore paint, SMART, PowerPoint and begin to use its 'pen' features. to direct a mouse, recognising the relationship between it and its position on the screen. to independently change games or increase levels of difficulty. 	 to choose the task (e.g., cam picture) to record a vid to use the sim photograph, si and working o to use a came purpose e.g., t work. 	best device/equipment for a era, iPad or phone to take a leo on an iPad or camera. ple functions e.g., taking a topping and starting a video ut how to play a game. ra/other technology for aking a photo of their own	 what personal information is and that it shouldn't be shared on line. about acceptable use, to ask permission before using www. that information can be public or private. 		
Year 1	Just Paint and Write – Part 1 - All about Me Children will learn: L. to create a number of drawings and text files. 2. to save their drawings in a JiT5 'Write' and 'Paint' software. 4. to produce pieces of work entitled 'All about Me'.	Collect Photographs and Paint Pictures Part 2 Children will learn: 1. to create a digital album using photographs, JIT5 'Write, 'Paint' and 'Mix' tools	Gathering Data and Creating Charts Children will learn: 1. to create charts using JIT 'Chart' and 'Pictogram' tools. 2. to develop an understanding of interpreting data from a chart using JIT 'Mix' to present work.	Simple Algorithms and Programs - Part 1 Children will learn: 1. to demons trate logical thinking to support algorith mic thinking , predicti on and debuggi ng. 2. to encode algorith ms to a progra m to	Create Simple Programs - Part 2 Children will learn: 1. to use logical thinking to evaluate algorithms and route-based programs to improve outcomes.	

					control	
					a floor	
					turtle	
					using a	
					mixture	
					of	
					unplugg	
					ed and	
					physical	
					computi	
					ng	
					activity	
		-			types.	
Year 2	Ways to Present	Art of Animation	Create a Topic-	Sequencing Simple	Collecting, 0	Organising, and Presenting Data
	Information	Children will learn:	Based eBook	Algorithms and Programs	Children will	learn:
	Children will learn:	1. to design	Children will	Children will learn:	1. to develop	a better understanding of
	1. to design assets	animations that	learn: 1. to predict and		interpreting data from a chart – using JIT	
	using JiT5	present	1. to use JiT tools	investigate route-based	'Chart' and 'Pictogram' tools.	
	'Paint', 'Write'	information about	to create an	programs to answer	2. to gather opinions using the J2vote	
	and 'Animate'	oceans.	eBook in JiT numerous challenges.		software.	
	tools.	2. to draw assets	'Mix' tool.	2. to complete tasks that	3. to present	the findings.
		using JIT5 'Paint'.	2. to include a	will require them to		
		3. to add	mixture of	modify route-based		
		backgrounds and	text, painting	programs		
		shared images to	and photos	3. to make their own		
		combine and	within a	route-based programs.		
		create an effective	variety of			
		animation.	page layouts.			
Year 3	Organising,	QR Codes	Creating a Branching Database and		Write a	Write a Program - Part 2
	Creating and	Children will learn:	Interrogating Simple Databases		program -	drawing shapes
	Presenting	1. to explore what	Children will learn:		Part 1	Children will learn:
	Children will learn:	QR codes are and	1. to understand what a database is and how		Children	1. to complete some
	1. to use three	how they are	frequently we use them in life.		will learn:	2. 'unplugged activities' to
	types of multi-	created to present	2. to use JIT 'Branch' to create and use a		1. to use	improve concepts of
	media: text,	information to a	branching database,.		DIOCK-	debugging and logical
	image and	user.	3. to focus on que	stions to ask to uniquely	based	reasoning.
	animation	2. to record sound	identify objects,	/people.	sequence	3. to use j2Code tool 'Visual'.
		files and create	1		S.	

	 to create, organise and present content effectively. to consider layout choices and appropriate presentation styles depending on purpose. 	QR codes to allow others to access and listen to the sound file.	 to use j2 'Data' database. to create a j2e5 captures of the to reflect on the 	to interrogate a simple file to evidence screen searches. eir learning.	 2. to debug sequence s of code. 3. to use J2Code tool 'Visual' to create a scene with two character s having a conversa tion/telli ng a joke. 	 4. to create the code in Visual to draw simple shapes and patterns. 5. to repeat code.
Year 4	 Multimedia Fact File Children will learn: 1. to create a researched based fact file based upon a topic being studied. 2. to plan and create fact files pages that are hyperlinked from the home page. 3. to include a range of multimedia – images, sounds and video. 	 What is Computer Technology? Children will learn: 1. what a computer is made up of. 2. how the components all work together to provide access to the technology we use today. 	Creating and Interrogating Simple Databases Children will learn: 1. to discuss how information is collected and organised for use in a database. 2. to design a database, considering audience and purpose. 3. to interrogate data contained within a database using the sort	 Scratch Programming - From Algorithm to Code Children will learn: to use Scratch to use various inputs and outputs to make a sprite move, change size or play sounds. to use 'broadcast' as a conditional input. 	 On the Move with Programming Children will learn: 1. to use Scratch 3 to introduce movement blocks to animate sprites and change backgrounds. 2. to use conditional statements – 'If,Then ', reinforcing sequence, repetition, and selection in programming. 	

			4. and search		
			functions.		
Year 5	Infographics	Computers for	Creating and Using	spreadsheets as Models to	Programming Making Games
	Children will learn:	Communication and	Solve Problems		Children will learn:
	1. to develop an	Collaboration	Children will learn:		1. to develop logical thinking and coding using
	understanding	Children will learn:	1. to use and creat	e spreadsheets to support	Scratch 3 to make a range of computer
	of what makes	1. how computers	solving mathem	atical problems.	games.
	infographics a	offer	2. to use simple fo	rmulae to carry out	
	popular choice	opportunities for	calculations.		
	to present and	communication	3. to answer 'Wha	t if?' type questions.	
	share	and collaboration.	4. to present infor	mation in the form of graphs	
	information.	2. to consider how	where required.		
	2. to develop an	technology has			
	understanding	improved			
	of colour,	communication.			
	styling,	3. to consider how			
	enhanced	forms of			
	editing tools	communication			
	and the use of	have changed as a			
	charts/graphs/t	result.			
	ables to	4. to know who has			
	effectively	been influential in			
	present	the changes of			
	information.	technology over			
	3. to research and	time.			
	select key				
	information to				
	present as an				
Veer C	Analyse and	The Internet and	Linders	tanding Big Data	Game Design
fearo	Interpret Data	World Wide Web	Children will learn		Children will learn:
	using Spreadsheets	Children will learn:	1. what big data is		1. to use pseudo-code, cloping and
	Children will learn:	1. to understand	2. the impact on privacy and security of data		conditional operators (Boolean) in
	1. to create	what the internet	3 how data is used by others in both		Scratch3 to make and design complex
	spreadsheets	is.	authorised and	unauthorised ways.	games.
	that are fit for		4. to investigate w	ays that big data is used for	G
	purpose.		global projects t	hat benefit our lives.	

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	2.	to use the	2. to discuss the	
		spreadsheets to	services it	
		find the answers	provides.	
		to problems.	3. to focus in on the	
			world wide web as	
			a service and how	
			data and	
			information	
			travels around the	
			network.	
			4. to consider how	
			search engines	
			help to find	
			Information.	
			5. to improve search	
			techniques when	
			looking for	
			information	
			online.	