ST JOHN'S C OF E PRIMARY SCHOOL

COMPUTING PROGRESSION OVERVIEW

	Age Related Statutory Content
EYFS	The Early Years Foundation Stage (EYFS) framework does not explicitly include computing and technology and there are no early learning goals directly linking to this. However, at St John's we recognise the vital importance of pupils developing an understanding of computing and technology from nursery onwards. In the EYFS pupils will begin to build the foundations for more formal experiences in computing in Year 1 and beyond, through a range of activities which allow them to experience technology and begin to understand it's place in their lives. Technology is about how things work and pupils at St John's are given lots of opportunities to problem-solve, explore cause and effect and develop their creativity through their play and daily experiences with a range of technology. At St John's we introduce e-safety in the nursery using appropriate stories which help to develop children's understanding of how to keep themselves safe.
KS1	Pupils should be taught to: • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • create and debug simple programs • use logical reasoning to predict the behaviour of simple programs • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. **At St John's we use the Studyzone computing curriculum to support teaching and learning in KS1 and KS2.**
KS2	Pupils should be taught to: • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

	• understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. **At St John's we use the Studyzone computing curriculum to support teaching and learning in KS1 and KS2.**			
	E-safety	**Term 1 / Term 2**	**Term 3 / Term 4**	**Term 5 / Term 6**
Nursery	E-safety: who can help when using devices that connect to the internet e.g. ipad/ tablet (link to staying safe/ stranger danger).	Spot and use simple technology around nursery e.g. IWB screen, taking a photo on the iPad, role play with phones and laptops.	Encourage use of technology to extend play experiences; taking photo or video with iPads, simple search with an adult to find information or pictures. Explore cause and effect with mechanical equipment e.g. wind-up toys, pulleys, set of cogs with pegs and boards - "What happens if I do this?".	Encourage use of technology to extend play experiences; taking photo or video with iPads, simple search with an adult to find information or pictures. Look at Google Earth to show land/sea. Develop exploration of cause and effect by introducing small programmable toys such as BeeBots or remote-controlled vehicles.
	All knowledge and skills to be revisited throughout children's year in Nursery.			
Reception	E-safety: develop understanding of how to stay safe when using devices that connect to the internet e.g. ipad/ tablet by	Develop use of technology to extend play experiences; taking photo or video with iPads, simple search with an adult to find information or pictures, model using QR codes for e-books and online stories, model using visualiser for a range of purposes e.g.	Continue to provide technology to support and enhance role play. Suggestions for technology: music player, iPads, microphones, till, torch, camera, phones, talk tins/ voice recorders (supported by adults).	Continue to provide technology to support and enhance role play. Suggestions for technology: music player, iPads, microphones, till, torch, camera, phones, talk tins/ voice recorders (*used with increasing independence by children).*

	recapping who can help.	showing examples of work and looking closely at objects. Sequence stories and instructions e.g. ordering familiar stories and events throughout the day such as getting changed for PE (coding skill).		Recap coding skills from sequencing stories and instructions. Apply these skills to programme Bee Bot and remote-controlled toy challenges (linked to key stories/ story maps).		Develop understanding of use of technology for a purpose e.g. google maps to plan a route, photographs to capture memories.	
	All knowledge and skills to be revisited throughout children's year in Reception.						
	E-safety	**Term 1 Digital literacy**	**Term 2 Computer science**	**Term 3 Computing technology**	**Term 4 Digital literacy**	**Term 5 Computer science**	**Term 6 Digital literacy**
Year 1	E-safety: why use passwords.	Using the mouse and keyboard, finding and operating programs/apps.	Build on previous experience (from EYFS) of programming a toy to move around.	Understanding different uses for technology in and around school.	Editing and formatting text with a word processor.	Creating a simple program with Scratch.	Using a drawing package to produce digital art.
Year 2	E-safety: how to stay safe when playing games on the internet.	Using the mouse and keyboard, finding and operating programs/apps.	Using loops to carry out repeated tasks.	Understanding different uses for technology beyond school.	Using a digital camera and photo editing software.	Using inputs from the mouse and keyboard within a program.	Recording basic sounds and combining sound and images.

Year 3	E-safety: how to comment appropriately and what to do in the event of an inappropriate comment.	Using blogs (with touch typing practice).	Using IF statements to create more interactive programs.	Understanding how devices connect to create a network.	Creating basic presentations.	Using IF ELSE statements to create even more interactive programs.	Styling documents to create eye catching posters and leaflets.
Year 4	E-safety: websites can trick search engines / searching for images safely.	Using search engines effectively (with touch typing practice).	Using variables to enable programmers to adapt code more easily.	To understand how computers control physical hardware.	To create interactive 'kiosk' presentations.	Storing and retrieving values from a variable as a program is running.	To create stop frame animations that tell a story.
Year 5	E-safety: How to manage inappropriate messages / how to avoid viruses.	Using email (with touch typing practice).	Using operators to carry out mathematical functions and logical comparisons.	Controlling external components with a computer.	Editing and mixing musical compositions.	Using physical sensors to control programs.	Recoding and editing movies.
Year 6	E-safety: how to stay safe when using social networks; what counts as 'personal' information.	Creating a website (with touch typing practice).	Using sounds within a program.	Controlling multiple sensors and components within a computer.	To use formulae and graphs within a spreadsheet.	Using pens within a program.	To create stimulating presentations that combine a range of media.