Naphill and Walters Ash School

Computing Curriculum
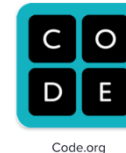
Year	Information Technology		Computer Science		Digital Literacy
	Programme/ software	Skills	Programme/software	Skills	
R	Various tablet apps	Open applications, use touch screen software, handle devices, take photos on a device, play simple games using large and small touch screens	Bee-Bots	Input simple code to direct Bee-Bot Change direction and position using algorithms	*See e-safety curriculum information*
1	Microsoft Paint	Experimenting with size and texture of tools; drawing, selecting and moving shapes; choosing colours and tools; opening and closing applications; logging on to computers	Bee-Bots	Understanding how a list of instructions can get a person or robot from one place to another, programming directions, writing simple code, drawing arrows to represent lines of code	
2	Microsoft Powerpoint	Typing skills, retrieving information, opening applications, saving and printing work, simple page transitions, insert a picture	Code.org (CS Fundamentals Course B)	develop sequential algorithms, basic debugging skills, use loops for repeated patterns, start to understand concept of 'events' in the context of a game	
	Microsoft Paint	Create digital art; insert, format and move shapes for a purpose, edit colour and select tools appropriately, saving and printing work, turning computers on and shutting down, logging on using personal log ins			
3	Internet search engines	Using appropriate search terms, how search engines work, choosing results from search engines, selecting information from search results, navigating websites to retrieve information	Scratch	Notice and understanding how to create loops for repeated code, programming simple animations, creating lines of code to tell a story, exploring others' algorithms (look inside) and understand how it corresponds to movement and events, creating a simple game with supplied/supported code step by step	
	Microsoft Word	Create posters; inserting and formatting text boxes, typing skills, inserting and formatting images, creating shapes, moving text, choosing how text wraps around objects, using the snipping tool, click and dragging, copy and paste			

4	Microsoft Powerpoint	Using search engines, using search terms appropriately for a specific result, inserting hyperlinks, page transitions, inserting and formatting animations, selecting timings, saving work, opening files, re-saving and editing folders	Code.org (CS Fundamentals Course C)	create programs with sequencing, loops and events, investigate problem-solving techniques and develop strategies for building positive communities both online and offline, create interactive games that they can share, finding errors within algorithms and debugging lines of code.
	Microsoft Publisher	Inserting shapes to create digital art, choosing gradient colours to create a 3D effect, layering shapes, changing the order of shapes (bring to front, send backward etc), changing background colours, printing work in colour, saving work under specific name		
5	Microsoft Powerpoint/ Microsoft Word	Take photos, upload photos, insert photo to a programme, edit photo background/foreground, layer images, manipulate order of images, use effects to change the look of an image, add sound and movement to inserted images, cropping tools, copy and paste, wrap text, flip and rotate images	Code.org (Dance Party)	Develop programs that respond to timed events, Develop programs that respond to user input, Create dance animations with code, debug errors by using step by step technique, use open ended projects to explore learned skills, created nested loops to reduce repeated lines of code and condense algorithms to smaller area
	Internet search engines	Choosing effective search terms to get specific results, choose websites by checking search results preview, select information from websites, use website menu bars to link to other appropriate sites, analyse search results to decide if search terms need adjusting		
6	Google Sites	Create a website, inserting pictures, hyperlinks, embedding videos, internet research using search engines.	Scratch	Creating a game using code; create backdrop for a game, enable rules based on colours of backdrop, change sprite, set costume centre, use 'when' and 'if' blocks to enable events based on different scenarios, set timers, create events based on 'touching colours', animate text to appear using the 'when' block
	Microsoft Excel	Collecting, inputting and reading data, ordering information, filtering data, creating basic formula		

	KS1	KS2
CS	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	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 Appreciate how [search] results are selected and ranked
IT	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Use search technologies effectively 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
DL	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	Understand the opportunities [networks] offer for communication and collaboration Be discerning in evaluating digital content Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact