

Muscliff Primary computing curriculum

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Programming	Use a variety of electronic toys in play situations (dance mats, Bee-Bots, remote control toys) using basic directional language	I can move a programmable toy in different directions, by giving and following instructions	I can plan out and enter a sequence of commands to carry out specific tasks	I can create a procedure (group of commands) to do a specific task, draw a specific shape	I can use if...then command within a series of instructions	I can plan and test my algorithms and programs, detecting and correcting errors as needed	I can design and create a game, app and / or model, incorporating variables and different forms of input and output
	Respond to simple cause and effect devices (push a button to hear a sound)	I can combine commands to follow a route	I can explore a computer simulation that copies real life	I can explain how to control a simulation	I can write a program for a specific purpose , incorporating features such as inputs and procedures	I can use variables in programs	
	Program a simple floor robot to carry out a short sequence of steps	I can explain what an algorithm is	I can explain what a program is	I can describe and write algorithms to complete specific tasks	I can predict the outcome of a program	I can test existing programs to see how they could be improved	I can test, debug and modify a program to improve it
	Explore toys that simulate control devices e.g. traffic lights, scanner, microwave, cash tills	I can explore outcomes when a instructions are given in different orders	I can reorder a sequence of instructions and correct errors in programs (debug)	I can refine a program by using the repeat command	I can solve problems by breaking them into smaller parts		
Communication	Use a paint program to make marks, using simple tools, to communicate their ideas	I can use letters, basic punctuation, spacebar and enter key to type words	I can use letters, basic punctuation, spacebar and enter key to type words and sentences	I can change the font size, colour and style to change my work	I can add text effects and move items around to find the best layout	I can use different layouts and effects (such as text box, columns, colour) to refine and improve my work	I can discuss and evaluate my documents , and make amendments as needed
	Begin to use a keyboard to produce text on screen		I can use backspace to make corrections	I can edit and improve my work by changing, adding or removing words	I can use cut, copy and paste to reorder content	I can use spell check to aid my writing	
	Use different forms of electronic communication in free play				I can add slide transitions and animation effects	I can trigger animations or link to other slides when objects are pressed	I can add multimedia elements , e.g. sounds, animation
	Develop mouse control						

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Research		Use appropriate buttons, menus and hyperlinks to navigate a teacher selected website	I can explore a website using buttons, menus and hyperlinks	I can find out facts by navigating websites	I can navigate to a website via favourites and typing in address	I can type in a URL to find a website	I can use more complex search criteria to narrow down my search	I can use search engines effectively , and I know how search results are selected and ranked
				I know not all the information found on the internet will be accurate or useful	I can talk about the reliability of information on the internet	I know that not all websites are accurate and can check information using a different site	I know the information found on some sites will be biased	I can make notes from information found on websites to present my findings
						I know what plagiarism is and when I can use the work of others	I know that images and text found on websites is subject to copyright	I know how to credit the use of websites in my work, and why this should be done
							I understand how computer networks work , including the internet	I understand the difference between the internet and an internet service
Multimedia	Capturing	Explore ways of making and listening to sounds using simple programs and devices	Use multimedia equipment , e.g. digital cameras, video cameras, webcams and visualisers	I can use a digital still camera to take a picture	I can zoom in and out on subjects appropriately	I understand the need to frame the image and move the camera carefully	I can take photos for a given purpose	I can take photos for a given purpose and use them in my work
	Editing		I can paint with different colours using undo or eraser to correct mistakes	I can use different tools such as brush, pen, line, shape and fill	I can use the print screen function to capture an image	I can select and use a certain area of an image	I can group, copy and move shapes within a picture	I can order shapes / images by sending them to the back / front
				I can use a photograph within a document	I can combine a set of photographs to tell a story	I can crop and / or rotate an image where needed	I can improve a photo with editing tools e.g. blur, filters, add border	I can select and use appropriate multimedia tools , and combine these for a given purpose with confidence

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Data	Data	Begin to develop simple classification skills by carrying out simple sorting activities away from the computer	I can sort items into sets or simple tables	I can collect and record data purposefully	I can design a questionnaire to collect information , & display this in a graph or table	I can present data in a graph , selecting the most appropriate layout	I understand the difference between discrete and continuous data	
		Continue to develop simple classification skills using ICT	I can draw a simple graph , e.g. pictogram / block graph	I can present data in a bar chart		I can use my graph in a document / presentation to share findings with others		
		Produce simple pictograms with help	I can explain what the graph shows	I can answer and ask questions about bar charts		I can answer questions relating to graphs, and pose my own questions		
	Databases			I can add information to a database	I can create a branching database to sort and organise items		I can design and create a database	
				I can read and use a simple database to find information	I can filter and sort records in a database to answer questions		I can interrogate a database using more complex searches	I can use information in a database to create a graph in order to answer questions
	Spreadsheets					I can add text and numbers to spreadsheet cells	I can change the appearance of cells , e.g. size and colours	I can change the format of cells appropriately
						I can add simple formulae : +-* /	I can use simple functions, e.g. SUM, AVERAGE, to solve problems	I can change data in a formula to answer 'What if?' questions
							I can create a graph using spreadsheet data	I can design and create a spreadsheet for a specific purpose , incorporating different features of design and function