COMPUTING SKILLS PROGRESSION MAP

St. Michael's Church of England Primary School

Our school values: Respect • Kindness • Challenge • Forgiveness • Perseverance

NATIONAL CURRICULUM		EYFS	YEAR 1	YEAR 2
Programming	Understand what algorithms are	• Understand that instructions lead to specific outcome • Order steps of a known task	• Begin to understand an algorithm is a set of instructions to achieve a specific purpose	• Describe a series of instructions as a sequence • Explain that a sequence of commands has an outcome
		• Know directional words forward, backward, left, right	• Combine forwards and backwards commands tomake a sequence • Combine four direction commands to make sequences	• Combine four directions commands to make increasingly more complex sequences
		• Understand that we control computers	• Understand that we control computers by giving them instructions	• Understand that computers have no intelligence and wehave to program them to do things
	Understand how **algorithms** are implemented as programs on digital	• Press buttons on a floor robot and talk about the movements	• Choose a command for a given purpose • Show a series of commands can be joined together	• Explain that a sequence of commands has a start

	devices, and that programs execute by following precise and unambiguous instructions			• Explain what happens when we change the order of commands
			• Understand that the order of instructions in an algorithm is important	• Understand that instructions in an algorithm need to be in order, clear and unambiguous
	Create and debug simple programs	• Input a short sequence of instructions to control a device	• Give a sequence of instructions to a floor robot. The length of programs increasing over the course of the year.	• Create a simple program on screen, correcting any errors,with a particular goal or purpose in mind (e.g. drawing a shape or moving a sprite from one place to another).
		• Try alternative approaches to achieve a goal	• Begin to debug instructions when a floor robot does not reach the intended destination	• Use the word debug to correct mistakes in an algorithm
				• Evaluate the success of analgorithm
	Use logical reasoning to predict the behaviour of simple programs		• Begin to predict what will happen for a short sequence of instructions in a program	• Predict the outcome of a sequence
			• Understand that we control computers by giving them instructions	• Compare prediction to the program outcome

Information Technology	**Creating Digital Content**	**Text**	Use technology purposefully to create,organise, store, manipulate and retrieve digital content		• Identify and find keys on a keyboard • Add and remove text using basic typing skills (including use of space bar, backspace to delete and basic, age-appropriate punctuation) • Save work to the appropriate location (hard drive and Google Drive) • Begin to print, retrieve and edit work, with support	• Identify and find keys on a keyboard with increased confidence and speed • Type capital letters • Change font, style (bold, italic and underline) and size of text • Save, print, retrieve and edit work from appropriate location (hard drive and Google Drive) independently • Upload images or movies to appropriate place (hard drive and Google Drive), with support
		Image			• Create/edit a drawing using a range of 'tools' such as brushes, pens, eraser, stamps and shapes, and set the size, colour and shape; • Explain why tools were chosen and used	• Add and resize images (including insert clip art/copy & paste an image) • Capture/edit photograph using a range of 'tools'
		Multimedia				• Use software to create and edit digital music for a purpose • Explain and begin to justify why tools were chosen and used

	Data Handling			• Label objects	
				• Identify that objects can be counted • Count objects with same properties • Compare groups of objects	• Recognise that objects can be counted and compared using tally charts
				• Describe objects in different ways	• Select objects by attribute and make comparisons
					• Recognise objects can be represented as pictures
					• Create a pictogram • Explain that information can be presented using a computer

Digital Literacy	**Online Safety**	Use technology safely and respectfully	• See related document: Online Safety Skills Progression (Education for a Connected World)		
		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			
	Computing Systems and Networks	Recognise common uses of information technology beyond school	• Help adults operate equipment around the school, independently operating simple equipment	• Identify technology	• Identify information technology in the home • Identify information technology beyond school • Explain how information technology benefits us
				• Identify a computer and its main parts	• Recognise the uses and features of information technology
				• Use a mouse in different ways	• Continue to practise mouse skills independently