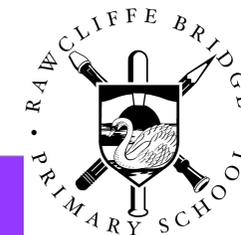




## The Federation of Rawcliffe Bridge and Rawcliffe Primary Schools



### Computing Skill Progression

DATE	REVIEW DATE	SUBJECT LEADER
Sep. 2019	August 2020	<b>Rebecca Pashley</b> (assisted by D. Littlewood-Wright and C.McNeill)

This document aims to give guidance on the progression of Computing knowledge and skills across the year groups. It can also be used to differentiate work, and expectations, appropriately for pupils working above and below age-related expectations (particularly SEND pupils and GD pupils). As pupils advance through school, it is expected that they can demonstrate a wider range of independent skills and knowledge in the three strands of Computing, across the curriculum.

In Computing, like all other subjects, we recognise the importance of the methods and practice of teaching (the pedagogy) we choose to use in enabling pupils to know more, understand more and remember more. In Computing, the following approaches will be used, and be evident in pupil discussion, observations and work in books, in order to ensure that the Computing learning opportunities are as effective as possible and that pupils progress throughout the year and across year groups during their Computing experiences in school:

Teaching Sequence in Computing:	Big picture: Look at and recap previous knowledge/skills that a relevant to the new learning.	Possible pedagogical approaches used in Computing:	Behaviourism	Direct teacher instruction; modelling of skills and techniques; demonstration
	Provide realistic and relevant information.		Constructivism	Inquiry-based learning
	Specify key vocabulary to be used and its meaning.		Social Constructivism	Teacher modelling; questioning; mix of individual, paired and group instruction
	Provide opportunities for the children to work interactively with the teacher acting as the facilitator.		Liberationism	Pupil-led learning; opportunities
	Ongoing opportunities to apply learned skills and knowledge across the curriculum.		Learning, working and talking about Computing:	Being introduced to the key vocabulary relating to Computing so that all children can confidently articulate their ideas, knowledge and skills within the three strands of digital literacy, information technology and computer science.

Strand	UFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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**Digital  
Literacy  
Knowledge  
and Skills**

<p>Understand not to talk to strangers.</p> <p>Understand that they must only use a computer/device with an adult's permission.</p>	<p>Safely search for images online.</p> <p>Understand what personal information is.</p> <p>Name, date and save work.</p> <p>With support, compose an email.</p>	<p>Understand digital footprint.</p> <p>Use keywords to safely search for information.</p> <p>Recognise if a website is appropriate for children.</p> <p>Distinguish between kind and unkind behaviour online.</p> <p>Using links to access information.</p>	<p>Begin to understand what cyberbullying is.</p> <p>Recognise advertisements online.</p> <p>Create passwords.</p> <p>Know how people communicate online.</p> <p>Independently compose an email and decide if an email is safe to open.</p>	<p>Know how to respond to cyberbullying.</p> <p>Use search engines accurately.</p> <p>Understand that plagiarism is copying the work of others.</p> <p>Creating safe online profiles and how this relates to personal information.</p>	<p>Understand spam emails and how to respond to them.</p> <p>Citation when researching and creating content.</p> <p>Creating strong passwords.</p> <p>Edited photographs, including the context of social media.</p>	<p>Distinguish between bullying and cyberbullying.</p> <p>Understand when a website is safe and secure.</p> <p>Know the benefits and risks associated with online relationships.</p> <p>Understanding online media and its role in shaping ideas about gender.</p>
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<b>Digital Literacy</b> <i>Key Vocabulary</i>	stranger  permiss  ion	search  personal informati on  save  ema  il	digital footpr int  search  engine  links	cyberbullyin  g  advertiseme  nts  password  safe email	cyberbully  ing  accuracy  plagiarism  personal information	spam  email  citation  passwor  d  editing photographs  social media	cyberbully  ing https  privacy  policy  media  social media
<b>Information Technology</b> <i>Knowledge and Skills</i>	Can log onto a computer independently.  Can use a mouse to input and select information.  Can use a touch screen to input and select information.  Can recognise the technology used at home and in school.	<u><b>Word Processing</b></u> Using a keyboard to input text.  Editing text.  Formatting the font of text.  <u><b>Designing</b></u>	<u><b>Presentati on Skills</b></u> Using folders to store information.  Creating a simple presentati on with text and images in a logical order.	<u><b>Word Processing</b></u> Taking and inserting screenshots.  Changing between upper case and lower case.  Aligning text to aid presentation (including use of bullet points and numbering). Insert and format text boxes.	<u><b>Word Processing</b></u> Formatting images.  Using spellcheck consistently.  Inserting and formatting tables.  Creating and using hyperlinks.  <u><b>Animation</b></u>	<u><b>Webpage Design</b></u> Create a webpage with appropriate layout, using features from previous units of Information Technology.  <u><b>Designing</b></u> Create and manipulate 3D shapes to create 3D drawings and increasingly complex models.	<u><b>Spreadsheets</b></u> Entering data.  Using the sum formula.  Order and manipulate data using MIN, MAX and AVERAGE functions.  Design a spreadsheet for a specific purpose.  <u><b>Video Editing</b></u> Record a video on one device and import to another.

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	Creating a simple poster containing colours, images and text.	<p><b>Designing</b></p> <p>Using tools in paint to create different styles of art.</p>	<p>Begin to use keyboard shortcuts (ctrl + C, ctrl + V, caps lock)</p> <p>Drawing using shapes and lines.</p> <p>Grouping objects.</p>	<p>Create a simple digital 2D animation.</p> <p><b>Video Editing</b></p> <p>Record and edit videos using iMovie, using features such as transitions and filters.</p>	<p><b>Audio Recording</b></p> <p>Record and manipulate sound files.</p> <p>Record a podcast and radio advertisement.</p>	<p>EDIT video footage using Windows Movie Maker (WMM), using features such as transitions, captions, information cards. Insert audio to a video using WMM.</p>
			<p><b>Presentation Skills</b></p> <p>Create slide templates</p> <p>Create hyperlinks (including buttons) between slides</p> <p>Format transitions, animation and themes.</p>			

<b>Information Technology</b> <i>Key Vocabulary</i>	mouse	text	folder	screenshot	format	webpage	spreadsheet
	screen	Input	presentation	shift	spellcheck	domain	Microsoft Excel
	keyboard	font	Microsoft Powerpoint	caps lock	table	hyperlink	data

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	computer	images	text	text box	hyperlinks	publishing	formula
	tablet	Microsoft Word	images	keyboard shortcut	2D animation	CAD (computer-aided design)	sum function
		word processing	paint	grouping	stop motion animation	3D modelling	min function
			drawing tool	template	iMovie	inference point	max function
			fill tool	hyperlink	record	mp3 (audio file)	average function
			shape tool	transition	video editing	microphone	import
				animation	filter	podcast	export
				theme	transition		mp3 (audio file)
					video file		mp4 (video file)
							media

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<b>Computer Science</b> <i>Knowledge and Skills</i>		<p>Instruct a sprite to move and change size.</p> <p>Create a program that plays a sound.</p> <p>Create simple, precise and ordered instructions using pictures.</p>	<p>Use left and right turn algorithms.</p> <p>Give and follow algorithms to make half and quarter turns.</p> <p>Using a repeat function.</p> <p>Change the backdrop on Scratch.</p> <p>Begin to debug simple programs</p>	<p>Use turning algorithms to make more complex shapes and patterns.</p> <p>Begin to debug simple programs involving the skills above.</p>	<p>Begin to use variables.</p> <p>Decompose and edit a program.</p> <p>Using algorithms to draw, including the use of different colours, fill effects and arcs.</p> <p>Begin to debug simple programs involving the skills above.</p>	<p>Design a maze game.</p> <p>Adding and using effects in Scratch.</p> <p>Design and create a game with a specific goal.</p> <p>Independently debug programs involving the skills above.</p>	<p>Structure and time events.</p> <p>Controlling when objects are visible.</p> <p>Sequencing events.</p> <p>Adding interactive features to a program.</p> <p>Use 'when,' 'if' and 'do' functions.</p> <p>Evaluate a game to increase or reduce challenge.</p>
			<p>involving the skills above.</p>				<p>Independently debug programs involving the skills above.</p>
<b>Computer Science</b> <i>Key Vocabulary</i>		<p>sprite</p> <p>algorithm</p>	<p>algorithm</p> <p>turn command</p>	<p>algorithm</p> <p>repeat function</p>	<p>algorithm</p> <p>repeat function</p>	<p>algorithm</p> <p>repeat function</p>	<p>iteration</p> <p>broadcast</p>

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		ordered instructions	repeat function	debug	debug	debug	receive
				Scratch	variable	variable	algorithm
		sound	backdrop	Turtlelogo	arc	Scratch	repeat function
		Scratch Jr	debug	sprite	Scratch	sprite	debug
			Scratch	sequence	Turtlelogo	score	variable
			Turtlelogo	code	sprite	sequence	Scratch
			sprite		sequence	code	sprite
					code		sequence
							code
<b>Technology in the Wider Curriculum</b>	Apply knowledge and skills associated with the three strands with increasing independence across the wider curriculum.						

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