



Curriculum Progression Map – Computing 2024 25

Year group	Term	Lesson	Knowledge	Key skills	Key vocabulary	
Mixed planning (Y1)	Autumn 1 Computing – Computing systems and networks: Improving mouse skills	1	<p>Improving mouse skills assessment quiz</p> <p>To log into a computer and access a website</p> <p>To know that “log in” and “log out” means to begin and end a connection with a computer</p> <p>To use confident keyboard and mouse skills to log into and out of a computer</p> <p>To predict the function of different tools</p>	<ul style="list-style-type: none"> Learning how to explore and tinker with hardware to find out how it works. Learning where keys are located on the keyboard. Using a basic range of tools within graphic editing software. Developing control of the mouse through dragging, clicking, and resizing of images to create different effects. Developing understanding of different software tools. Recognising devices that are connected to the internet. Logging in and out and saving work on their own account. 	Log in	Login
		2	<p>To develop mouse skills</p> <p>To know a computer and mouse can be used to click, drag, fill and select and also add backgrounds, text, layers, shapes and clip art.</p> <p>To log in and out of a computer network</p> <p>To use advanced tools to duplicate or make work symmetrical</p>		Log out / off	Mouse
		3	<p>To use mouse skills to draw and edit shapes</p> <p>To know a computer and mouse can be used to click, drag, fill and select and also add backgrounds, text, layers, shapes and clip art.</p> <p>To accurately draw shapes, lined up inside each other.</p> <p>To use layers to add extra detail in their artwork</p> <p>To log in and out independently</p>		Mouse pointer	Click
		4	<p>To draw a scene from a story using digital tools</p> <p>To know passwords are important for security and to keep us safe.</p> <p>To use advanced tools to duplicate and make layers more effectively</p> <p>To discuss different tools and how they alter computer artwork</p>		Keyboard	Screen
		5	<p>To create a self-portrait using digital techniques</p>		Password	Account
					Software	Duplicate
					Ctrl	Tools
					Right click	Menu
					Layers	Username
					Drag	Drag and drop
					Digital photograph	Undo
					Cursor	



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			<p>To use a variety of different paint tools to create different effects</p> <p>Improving mouse skills assessment quiz</p>			
		1	<p>Online safety Y1 unit - See table below</p> <p>Assessment quiz</p> <p>To know what the internet is and how to use it safely</p>			
Mixed planning (Y1)	Autumn 2 Computing - Programming 1: Algorithms unplugged	1	<p>Algorithms unplugged assessment quiz</p> <p>To understand what an algorithm is</p> <p>To understand that an algorithm is when instructions are put in an exact order.</p> <p>To know why algorithms need to be precise, giving real-life examples</p> <p>To suggest ways of improving their algorithms</p>	<ul style="list-style-type: none"> Recognising that some devices are input devices and others are output devices. Learning that decomposition means breaking a problem down into smaller parts. Using decomposition to solve unplugged challenges. Developing the skills associated with sequencing in unplugged activities. Following a basic set of instructions. Assembling instructions into a simple algorithm. Learning to debug instructions when things go wrong. Learning to debug an algorithm in an unplugged scenario. 	Algorithm	Automatic
		2	<p>To follow instructions precisely to carry out an action</p> <p>To know it is important that algorithms are clear and precise</p>		Bug	Chunks
		3	<p>To understand that computers and devices around us use inputs and outputs</p> <p>To identify different devices that can be both inputs and outputs</p> <p>To use logical reasoning to predict the behaviour of simple programs</p>		Clear	Code
		4	<p>To understand and be able to explain what decomposition is</p> <p>To understand that decomposition means breaking a problem into manageable chunks and that it is important in computing.</p> <p>To make a complex design, recording how it is broken down into manageable chunks</p>		Debug	Decompose
		5	<p>To know how to debug an algorithm</p> <p>To know that we call errors in an algorithm 'bugs' and fixing these 'debugging'.</p> <p>To know that we call errors in an algorithm 'bugs' and fixing these 'debugging'.</p> <p>To give a clear definition of what debugging is</p> <p>Algorithms unplugged assessment quiz</p>		Decomposition	Device
					Instructions	Manageable
					Motion	Order
					Organise	Output
					Precise	Programming
					Problem	Robot
					Sensor	Sequence
					Solution	Specific
					Steps	Tasks



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		2	<p><i>Online safety Y1 unit - See table below</i></p> <p>To understand different feelings when using the internet</p>		Virtual assistant	
Mixed planning (Y1)	Spring 1 - Computing- Rocket to the moon	1	<p>Rocket to the moon assessment quiz</p> <p>To recognise that digital content can be represented in many forms.</p> <p>To know that when we create something on a computer it can be more easily saved and shared than a paper version.</p> <p>To use correct language when comparing forms of digital content</p> <p>To give informed advantages and disadvantages for their choices</p>	<ul style="list-style-type: none"> Learning where keys are located on the keyboard. Learning how to operate a camera to take photos and videos. Using logical reasoning to predict the behaviour of simple programs. Developing the skills associated with sequencing in unplugged activities. Following a basic set of instructions. Assembling instructions into a simple algorithm. Learning to debug instructions when things go wrong. Learning to debug an algorithm in an unplugged scenario. Using a basic range of tools within graphic editing software. Taking and editing photographs. Developing control of the mouse through dragging, clicking, and resizing of images to create different effects. Developing understanding of different software tools. Recognising devices that are connected to the internet. Understanding that technology can be used to represent data in different ways: pictograms, tables, pie charts, bar charts, block graphs etc. 	Annotate	Cells
		2	<p>To design a rocket using a graphics editing programme.</p> <p>To know some of the simple graphic design features of a piece of online software.</p> <p>To create a detailed design using graphics editing software</p>		Digital image	Document
		3	<p>To sequence a set of instructions.</p> <p>To demonstrate an understanding of algorithms and how to give clear, unambiguous instructions</p>		E-document	Edit
		4	<p>To build a rocket.</p> <p>To follow instructions in the form of an algorithm</p> <p>To use technology purposefully to create, organize, store, manipulate and retrieve digital content</p>		Editing program	Evaluate
		5	<p>To test a design and record data.</p> <p>To know that a spreadsheet is an electronic 'table' for sorting data.</p> <p>To compare data in a spreadsheet</p> <p>To explain their interpretations of data in a spreadsheet</p> <p>Rocket to the moon assessment quiz</p>		Folder	Input
		3	<p><i>Online safety Y1 unit - see table below</i></p> <p>To understand how to treat others, both online and in-person</p>		Instructions	Log in
						Photo
			Order	Robot		
			Save	Sequence		
			Share	Software		
			Spreadsheet	Table		



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				<ul style="list-style-type: none"> Logging in and out and saving work on their own account. 		
Mixed planning (Y2)	Spring 2 Computing - What is a computer?	1	<p>What is a computer assessment quiz</p> <p>To recognise and name a computer's peripherals and their functions.</p> <p>To know the difference between a desktop and laptop computer.</p> <p>To recognise the parts of a computer</p>	<ul style="list-style-type: none"> Understanding what a computer is and that it's made up of different components. Recognising that buttons cause effects and that technology follows instructions. Learning how we know that technology is doing what we want it to do via its output. Using greater control when taking photos with cameras, tablets or computers. Developing word processing skills, including altering text, copying and pasting and using keyboard shortcuts. Using word processing software to type and reformat text. Creating and labelling images. Learning how computers are used in the wider world 	Battery	Buttons
		2	<p>To recognise how technology is controlled</p> <p>To know that people control technology.</p> <p>To know that buttons cause effects</p>		Camera	Computer
		3	<p>To recognise technology</p> <p>To know some input devices that give a computer an instruction about what to do (output).</p> <p>To recognise common uses of information technology beyond school</p> <p>To identify and classify different technology</p>		Desktop	Device
		4	<p>To create a design for an invention including inputs and outputs</p> <p>To create a design for an invention</p> <p>To use keywords to annotate their designs</p>		Digital	Digital recorder
		5	<p>To understand the role of computers</p> <p>To know that computers often work together.</p> <p>To navigate a database</p> <p>To participate in a presentation</p> <p>What is a computer assessment quiz</p>		Electricity	Function
		4	<p><u>Online safety Y1 unit - see table below</u></p> <p>To understand the importance of being careful about what we post and share online</p>		Input	Invention
				Monitor	Mouse	
				Output	Paying till	
				Scanner	Screen	
				System	Tablet	
				Technology	Video	
				Wires		
Mixed planning (Y2)	Summer 1	1	<p>Algorithms and debugging assessment quiz</p> <p>To decompose a game to predict the algorithms that are used</p> <p>To know what decompose means</p>	<ul style="list-style-type: none"> Developing confidence with the keyboard and the basics of touch typing. 	Abstraction	Algorithm
					Artificial intelligence	Bug



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	Computing - Algorithms and debugging	2	<p>To understand that computers can use algorithms to make predictions (machine learning)</p> <p>To understand what machine learning is and how it enables computers to make predictions.</p> <p>To create and debug a simple program</p>	<ul style="list-style-type: none"> • Articulating what decomposition is. • Decomposing a game to predict the algorithms used to create it. • Learning that there are different levels of abstraction. • Explaining what an algorithm is. • Following an algorithm. • Creating a clear and precise algorithm. 	Clear	Correct
		3	<p>To plan algorithms that will solve problems</p> <p>To know that loops in programming are where you set a certain instruction (or instructions) to be repeated multiple times.</p> <p>To use code cards to plan algorithms before writing them</p> <p>To begin to use loops in the code</p>		Data	Debug
		4	<p>To understand what abstraction is</p> <p>To know abstraction is the removing of unnecessary detail to help solve a problem</p> <p>To use logical reasoning to predict the behaviour of simple programs</p> <p>To use directions and a key to create a plan</p>		Decompose	Error
		5	<p>To understand what debugging is</p> <p>To explain how an algorithm construction needs to be correct for the processes to work properly</p> <p>To perform a task by following step-by-step instructions</p> <p>To identify incorrect steps within an algorithm</p>		Key features	Loop
		5	<p>Consolidation</p> <p>Algorithms and debugging assessment quiz</p>		Predict	Unnecessary
Mixed planning (Y2)	Summer 2 Computing - Word processing	1	<p>Word processing assessment quiz</p> <p>To begin to learn to touch type.</p> <p>To know that touch typing is the fastest way to type</p> <p>To find keys on a computer keyboard</p> <p>To know a keyboard is an important input device</p>	<ul style="list-style-type: none"> • Developing confidence with the keyboard and the basics of touch typing. • Developing word processing skills, including altering text, copying and pasting and using keyboard shortcuts. • Using word processing software to type and reformat text. 	Backspace	Bold
		2	<p>To understand how to use a word processor.</p> <p>To know that I can make text a different style, size and colour.</p> <p>To type a sentence into a word processor</p>		Copy	Copyright
					Cut	Delete
					Forward button	Highlight
					Home row	Home screen



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		3	<p>To understand how to add images to a text document</p> <p>To search for, import and alter appropriate images for a text document</p> <p>To use keyboard shortcuts to alter text</p> <p>To begin to know how to insert an image into a text document</p>	<ul style="list-style-type: none"> • Searching for appropriate images to use in a document. • Understanding what online information is. • Identifying whether information is safe or unsafe to be shared online. 	Image	Import
		4	<p>To create a poetry book using sources from the internet.</p> <p>To know that "copy and paste" is a quick way of duplicating text.</p> <p>To develop control of the mouse through dragging, clicking and resizing of images to create different effects.</p>		Italics	Keyboard
		5	<p>*NB. LESSON 5 HAS BEEN REPLACED WITH A NEWLY WRITTEN LESSON FROM YEAR 2 ONLINE SAFETY UNIT*</p>		Keyboard character	Keyword
		6	<p>Consolidation</p> <p>Word processing assessment quiz</p>		Keyboard shortcut	Layout
					Navigate	Paste
					Redo	Search
					Space bar	Text
					Text effects	Touch typing
					Underline	Undo
					Word processing	



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<i>Online Safety</i>						
Year group	Term	Lesson	Key knowledge	Key skills	Key vocabulary	
Year 1	Autumn 1	1	<p>Online safety assessment quiz</p> <p>To know what the internet is and how to use it safely</p> <p>To know that the internet is many devices connected to one another.</p> <p><i>To understand the difference between online and offline.</i></p>	<ul style="list-style-type: none"> • Recognising devices that are connected to the internet. • Understanding that we are connected to others when using the internet. • Understanding some of the ways we can use the internet. • When using the internet to search for images, learning what to do if they come across something online that worries them or makes them feel uncomfortable. • Understanding how to interact safely with others online. • Recognising how actions on the internet can affect others. • To be able to recognise what a digital footprint is and how to be careful about posting online. 	Communicate	Connect
	Autumn 2	2	<p>To understand different feelings when using the internet</p> <p>To know what to do if you feel unsafe or worried online - tell a trusted adult.</p> <p><i>To understand what information I should not post online.</i></p>		Connection	Consoles
	Spring 1	3	<p>To understand how to treat others, both online and in-person</p> <p>To know that people you do not know on the internet (online) are strangers and are not always who they say they are.</p> <p><i>To know what the techniques are for creating a strong password.</i></p> <p><i>To know that you should ask permission from others before sharing about them online and that they have the right to say 'no.'</i></p>		Devices	Digital footprint
	Spring 2	4	<p>To understand the importance of being careful about what we post and share online</p> <p>To know that to stay safe online it is important to keep personal information safe.</p> <p>To know that 'sharing' online means giving something specific to someone else via the internet and 'posting' online means placing information on the internet.</p> <p><i>To understand that not everything I see or read online is true.</i></p> <p>Online safety assessment quiz</p>		Emotion	Feelings
					Instructions	Internet
					Internet safety	Laptop
					Mood	Online
					Personal information	
					Phone	Posting
					Respect	Sharing
					Smartphone	Smart TV
					Smartwatch	Strangers
					Tablet	Trust
					Wired	Wireless