

Tatsfield Primary School Computing Curriculum Map

	Autumn I	Autumn 2	Spring I	Spring 2	Summer I	Summer 2
Reception	Completes a simple program on a computer. Uses ICT hardware to interact with age appropriate computer software. Phonics and literacy online games Taking photos — linked to ourselves and our school Barefoot computing; Busy Bodies	Completes a simple program on a computer. Uses ICT hardware to interact with age appropriate computer software. Phonics and literacy online games Mouse skill – firework pictures in paint. Shapes to create a fire engine Barefoot computing; Awesome Autumn	Internet Safety PSHE Tablet – phonics activities Barefoot computing; boats ahoy	Tablet – phonics activities Tiger research (linked to Tiger who came for tea text) Barefoot computing; Springtime	The Foos Codespark Academy Coding: coderpillar/beebots Barefoot computing; Super Space	Keyboard recognition – writing their name on Word Barefoot computing; Summer fun
Year I	Teach Computing: Unit 1. Computing systems and networks – Technology around us	Teach Computing: Unit 2 creating media – Digital painting	Teach Computing: Unit 3 Programming A	Teach Computing: Unit 4 Data and information – Grouping data	Teach Computing: Unit 5 Digital writing	Teach Computing: Unit 6 Programming B – Programming animations
Year 2	Mighty Heroes: eSafety commissioner (Australian government) Classroom resources eSafety Commissioner Internet Safety PSHE	Teach Computing: Unit 2. Creating media – Digital photography	Dinosaur PowerPoints: Researching dinosaurs	Google Earth Teach Computing: Unit I Computing systems and networks – IT around us	Teach Computing: Unit 4 Data and information – Pictograms	Teach Computing: Unit 3 Robot algorithms and Unit 6 Programming B – Programming quizzes

	Autumn I	Autumn 2	Spring I	Spring 2	Summer I	Summer 2
Year 3	Teach Computing: Unit I Computing systems and networks – Connecting computers	Teach Computing: Unit 5 Creating media – Desktop publishing	Email	Teach Computing: Unit 4. Data and information – Data logging (Y4) Micro:Bits Scheme of work	Teach Computing: Unit 2 Creating media Stopframe animation	Teach Computing: Unit 3 Programming A — Sequencing Sounds and Teach Computing: Unit 6 Programming B — Events and actions in programs
Year 4	Teach Computing: Unit I – The internet	Teach Computing: Unit 5 – Photo editing	Internet Legends: online safety (from Google)	Teach Computing: Unit 2 – Audio production	Teach Computing: Unit 4 (Y3) Data and information - Branching databases	Teach Computing: Unit 3 – Programming A – Repetition in Shapes
Year 5	Teach Computing: Unit I Computing systems and networks – Systems and searching	Teach Computing: Unit 2 Creating media – video production	Teach Computing: Unit 3 Programming A – Selection in physical computing	Teach Computing: Unit 4 Data and information – Flatfile databases	Teach Computing: Unit 5 – Creating media – introduction to vector graphics	Teach Computing: Unit 6 Programming B – Selection in quizzes
Year 6	Teach Computing: Unit 4 Data and information — introduction to Spreadsheets	Teach Computing: Unit I Computing systems and networks — Communication and collaboration	Teach Computing: Unit 2 Creating media – Web page creation	Teach Computing: Unit 3 Programming A – variables in games	Teach Computing: Unit 5 Creating media – 3D modelling	Teach Computing: Unit 6 Programming B — Sensing movement



Tatsfield Primary School Computing Curriculum Progression Map

	Reception	Year I	Year 2	Year 3	Year 4	Year 5	Year 6
Algorithms	Completes a simple program on electronic devices	To explain what a given command will do To act out a given word To plan a simple program To find more than one solution to a problem To use my algorithm to create a program	To describe a series of instructions as a sequence To explain what happens when we change the order of instructions To use logical reasoning to predict the outcome of a program To explain that programming projects can have code and artwork To design an algorithm To create and debug a program that I have written	To create a project from a task description	To identify that accuracy in programming is important To explain what 'repeat' means To decompose a task into small steps	connects a condition	s nditional statement

Computing	Can use the internet	To identify technology	To recognise the uses	To explain how digital	To identify that sound	To explain that	To create a program
Systems	with adult supervision	To identify a computer	and features of	devices function	can be recorded	computers can be	to run on a
	to find and retrieve	and its main parts	information technology	To identify input and	To explain that audio	connected together to	controllable device
	information of interest	To use a mouse in	To identify the uses of	output devices	recordings can be	form systems	To explain that
	to them	different ways	information technology	To recognise how	edited	To recognise the role	selection can control
		To use a keyboard to	in the school	digital devices can		of computer systems in	the flow of a program
		type on a computer	To identify information	change the way we		our lives	To update a variable
		To use the keyboard	technology beyond	work		To identify digital	with a user input
		to edit text	school	To explain how a		devices that can record	To use a conditional
		To create rules for	To explain how	computer network can		video	statement to compare
		using technology	information technology	be used to share		To control a simple	a variable to a value
		responsibly	helps us	information		circuit connected to a	To design a project
			To explain how to use	To explore how digital		computer	that uses inputs and
			information technology	devices can be		To write a program	outputs on a
			safely	connected		that includes	controllable device
			To recognise that	To recognise the		countcontrolled loops	To develop a program
			choices are made	physical components of		To explain that a loop	to use inputs and
			when using information	a network		can stop when a	outputs on a
			technology	To use a digital device		condition is met	controllable device
			To use a digital device	to collect data		To design a physical	
			to take a photograph	automatically		project that includes	
			To make choices when	To explain that a data		selection	
			taking a photograph	logger collects 'data		To create a program	
				points' from sensors		that controls a physical	
				over time		computing project	
				To identify the data			
				needed to answer			
				questions			
				To use data from			
				sensors to answer			
				questions			

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Creating	Can create content	To describe what	To use a digital device	To explain that	To describe how	To explain what makes	To review an existing
Media	such as a video	different freehand tools	to take a photograph	animation is a sequence	content can be added	a video effective	website and consider
	recording, stories,	do	To make choices when	of drawings or	and accessed on the	To identify digital	its structure
	and/or draw a picture	To use the shape tool	taking a photograph	photographs	World Wide Web	devices that can record	To plan the features of
	on screen	and the line tools	To describe what	To relate animated	(WWW)	video	a web page
		To make careful	makes a good	movement with a	To explain that audio	To capture video using	To consider the
		choices when painting a	photograph	sequence of images	recordings can be	a range of techniques	ownership and use of
		digital picture	To decide how	To plan an animation	edited	To create a storyboard	images (copyright)
		To explain why I chose	photographs can be	To identify the need to	To recognise the	To identify that video	To recognise the need
		the tools I used	improved	work consistently and	different parts of	can be improved	to preview pages
		To use a computer on	To use tools to change	carefully	creating a podcast	through reshooting and	To outline the need for
		my own to paint a	an image	To review and improve	project	editing	a navigation path
		picture	To recognise that	an animation	To apply audio editing	To consider the impact	To recognise the
		To compare painting a	photos can be changed	To evaluate the impact	skills independently	of the choices made	implications of linking
		picture on a computer		of adding other media	To combine audio to	when making and	to content owned by
		and on paper		to an animation	enhance my podcast	sharing a video	other people
		To use a computer to		To create a project	project	To identify that	To choose suitable
		write		from a task description	To evaluate the	drawing tools can be	ways to present data
		To add and remove		To recognise how text	effective use of audio	used to produce	To recognise that you
		text on a computer		and images convey	To explain that the	different outcomes	can work in three
		To identify that the		information	composition of digital	To create a vector	dimensions on a
		look of text can be		To recognise that text	images can be changed	drawing by combining	computer
		changed on a computer		and layout can be	To explain that colours	shapes	To identify that digital
		To make careful		edited	can be changed in	To use tools to achieve	3D objects can be
		choices when changing		To choose appropriate	digital images	a desired effect	modified
		text		page settings	To explain how cloning	To recognise that	To recognise that
		To explain why I used		To add content to a	can be used in photo	vector drawings consist	objects can be
		the tools that I chose		desktop publishing	editing	of layers	combined in a 3D
		To compare typing on		publication	To explain that images	To group objects to	model
		a computer to writing		To consider how	can be combined	make them easier to	To create a 3D model
		on paper		different layouts can	To combine images for	work with	for a given purpose
				suit different purposes	a purpose	To apply what I have	To plan my own 3D
				To consider the	To evaluate how	learned about vector	model
				benefits of desktop	changes can improve an	drawings	To create my own
				publishing	image		digital 3D model

Data and	To label objects	To recognise that we	To explain that data	To create questions	To use a form to	To create a data set in
Information	To identify that objects	can count and compare	gathered over time can	with yes/no answers	record information	a spreadsheet
	can be counted	objects using tally	be used to answer	To identify the	To compare paper and	To build a data set in a
	To describe objects in	charts	questions	attributes needed to	computer-based	spreadsheet
	different ways	To recognise that	To use a digital device	collect data about an	databases	To explain that
	To count objects with	objects can be	to collect data	object	To outline how you	formulas can be used
	the same properties	represented as pictures	automatically	To create a branching	can answer questions	to produce calculated
	To compare groups of	To create a pictogram	To explain that a data	database	by grouping and then	data
	objects	To select objects by	logger collects 'data	To explain why it is	sorting data	To apply formulas to
	To answer questions	attribute and make	points' from sensors	helpful for a database	To explain that tools	data
	about groups of	comparisons	over time	to be well structured	can be used to select	To create a
	objects	To recognise that	To recognise how a	To plan the structure	specific data	spreadsheet to plan an
		people can be	computer can help us	of a branching database	To explain that	event
		described by attributes	analyse data	To independently	computer programs	To choose suitable
		To explain that we can	To identify the data	create an identification	can be used to	ways to present data
		present information	needed to answer	tool	compare data visually	
		using a computer	questions	To identify that sound	To use a real-world	
			To use data from	can be recorded	database to answer	
			sensors to answer	To recognise the	questions	
			questions	different parts of	To identify that	
				creating a podcast	drawing tools can be	
				project	used to produce	
					different outcomes	

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Design and	To explain why I chose	To describe what	To plan an animation	To explain why it is	To recognise why the	To evaluate different
Development	the tools I used	makes a good	To identify the need to	helpful for a database	order of results is	methods of online
	To compare painting a	photograph	work consistently and	to be well structured	important, and to	communication
	picture on a computer	To decide how	carefully	To independently	whom	To review an existing
	and on paper	photographs can be	To review and improve	create an identification	To explain what makes	website and consider
	To plan a simple	improved	an animation	tool	a video effective	its structure
	program	To explain that	To evaluate the impact	To explain that audio	To create a storyboard	To plan the features of
	To explain why I used	programming projects	of adding other media	recordings can be	To consider the impact	a web page
	the tools that I chose	can have code and	to an animation	edited	of the choices made	To consider the
	To design the parts of a	artwork	To change the	To recognise the	when making and	ownership and use of
	project	To design an algorithm	appearance of my	different parts of	sharing a video	images (copyright)
	To use my algorithm to	To create and debug a	project	creating a podcast	To design a physical	To recognise the need
	create a program	program that I have	To create a project	project	project that includes	to preview pages
		written	from a task description	To evaluate the	selection	To outline the need for
		To create a program	To consider how	effective use of audio	To create a program	a navigation path
		using a given design	different layouts can	To explain how cloning	that controls a physical	To recognise the
		To change a given	suit different purposes	can be used in photo	computing project	implications of linking
		design	To consider the	editing	To compare paper and	to content owned by
		To create a program	benefits of desktop	To evaluate how	computer-based	other people
		using my own design	publishing	changes can improve an	databases	To choose how to
		To decide how my	To identify and fix bugs	image	To apply what I have	improve a game by
		project can be	in a program		learned about vector	using variables
		improved	To design and create a		drawings	To design a project
			maze-based challenge		To design a program	that builds on a given
					which uses selection	example
					To create a program	To use my design to
					which uses selection	create a project
					To evaluate my	To evaluate my project
					program	To plan my own 3D
						model
						To create my own
						digital 3D model
						To design a project
						that uses inputs and
						outputs on a
						controllable device
						To develop a program
						to use inputs and
						outputs on a

			controllable device
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Effective Use	Uses ICT	To use a mouse in	To make choices when	To explain that animation	To create a branching	To explain how	To explain the
of Tools	hardware to	different ways	taking a photograph	is a sequence of drawings	database	search results are	importance of
OI 100IS	interact with	To use a keyboard to	To decide how photographs	or photographs	To explain why it is	ranked	internet addresses
		type on a computer	can be improved	To relate animated	helpful for a database to	To recognise why	To recognise how
	age appropriate	To use the keyboard to	To use tools to change an	movement with a	be well structured	the order of results	data is transferred
	computer	edit text	image	sequence of images	To plan the structure of	is important, and to	across the internet
	software	To create rules for using	To recognise that photos	To identify the need to	a branching database	whom	To explain how
	Soltware	technology responsibly	can be changed	work consistently and	To explain that audio	To create a	sharing information
		To describe what	To recognise that objects	carefully	recordings can be edited	storyboard	online can help
		different freehand tools	can be represented as	To review and improve an	To recognise the	To identify that	people to work
		do dinerent ir eenand tools	pictures	animation	different parts of	video can be	together
		To use the shape tool	To create a pictogram	To evaluate the impact of	creating a podcast	improved through	To evaluate different
		and the line tools	To select objects by	adding other media to an	project	reshooting and	ways of working
		To make careful choices	attribute and make	animation	To apply audio editing	editing	together online
		when painting a digital	comparisons	To explore a new	skills independently	To consider the	To recognise how we
		picture	To recognise that people	programming environment	To combine audio to	impact of the	communicate using
		To explain why I chose	can be described by	To recognise that text and	enhance my podcast	choices made when	technology
		the tools I used	attributes	layout can be edited	project	making and sharing	To evaluate different
		To use a computer on	To explain that we can	To choose appropriate	To create a program in a	a video	methods of online
		my own to paint a	present information using a	page settings	text-based language	To use a form to	communication
		picture	computer	To add content to a	To explain that the	record information	To recognise the
		To compare painting a	Computer	desktop publishing	composition of digital	To explain that	need to preview
		picture on a computer		publication	images can be changed	tools can be used	pages
		and on paper		To consider how different	To explain that colours	to select specific	To outline the need
		To use a computer to		layouts can suit different	can be changed in digital	data	for a navigation path
		write		purposes	images	To explain that	To recognise the
		To add and remove text		To consider the benefits	To explain how cloning	computer programs	implications of linking
		on a computer		of desktop publishing	can be used in photo	can be used to	to content owned by
		To identify that the look		To explain how a sprite	editing	compare data	other people
		of text can be changed		moves in an existing	To explain that images	visually	To explain that
		on a computer		project	can be combined	To use a real-world	formulas can be used
		To make careful choices		To create a program to	To combine images for a	database to answer	to produce calculated
		when changing text		move a sprite in four	purpose	questions	data
		To explain why I used		directions	To evaluate how changes	To identify that	To apply formulas to
		the tools that I chose		To use a digital device to	can improve an image	drawing tools can	data
		To compare typing on a		collect data automatically		be used to produce	To create a
		computer to writing on		To explain that a data		different outcomes	spreadsheet to plan
		paper		logger collects 'data		To create a vector	an event

Impact of Technology	Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones	To identify technology To act out a given word	To identify the uses of information technology in the school To identify information technology beyond school To explain how information technology helps us To recognise that choices are made when using information technology	points' from sensors over time To recognise how a computer can help us analyse data To identify the data needed to answer questions To recognise how digital devices can change the way we work To consider the benefits of desktop publishing	To evaluate the consequences of unreliable content To explain that colours can be changed in digital images	drawing by combining shapes To use tools to achieve a desired effect To recognise that vector drawings consist of layers To group objects to make them easier to work with To recognise the role of computer systems in our lives To describe how search engines select results	To choose suitable ways to present data To recognise that you can work in three dimensions on a computer To identify that digital 3D objects can be modified To recognise that objects can be combined in a 3D model To create a 3D model for a given purpose To plan my own 3D model To create my own digital 3D model To evaluate different ways of working together online To recognise the implications of linking to content owned by other people
Networks	and tablets		To recognise the uses and features of information technology To identify the uses of information technology in the school To identify information technology beyond school To explain how information	To explain how a computer network can be used to share information To explore how digital devices can be connected To recognise the physical components of a network	To describe how networks physically connect to other networks To recognise how networked devices make up the internet To outline how websites can be shared via the	To experiment with search engines To describe how search engines select results To explain how search results are ranked To recognise why	To explain the importance of internet addresses To recognise how data is transferred across the internet To explain how sharing information online can help

			technology helps us To explain how to use information technology safely To recognise that choices are made when using information technology		World Wide Web (WWW) To describe how content can be added and accessed on the World Wide Web (WWW) To recognise how the content of the WWW is created by people To evaluate the consequences of unreliable content	the order of results is important, and to whom	people to work together To evaluate different ways of working together online To recognise how we communicate using technology To evaluate different methods of online communication To review an existing website and consider its structure To outline the need for a navigation path To recognise the implications of linking to content owned by other people
Programming	Completes a simple program on electronic devices	To combine forwards and backwards commands to make a sequence To combine four direction commands to make sequences To choose a command for a given purpose To show that a series of commands can be joined together To identify the effect of changing a value To explain that each sprite has its own instructions To design the parts of a project To use my algorithm to	To use logical reasoning to predict the outcome of a program To explain that programming projects can have code and artwork To create and debug a program that I have written To explain that a sequence of commands has a start To explain that a sequence of commands has an outcome To create a program using a given design To change a given design To create a program using my own design To decide how my project can be improved	To explore a new programming environment To identify that commands have an outcome To explain that a program has a start To recognise that a sequence of commands can have an order To change the appearance of my project To create a project from a task description To explain how a sprite moves in an existing project To create a program to move a sprite in four directions To adapt a program to a	To identify that accuracy in programming is important To create a program in a text-based language To explain what 'repeat' means To modify a count-controlled loop to produce a given outcome To decompose a task into small steps To create a program that uses count-controlled loops to produce a given outcome that uses count-controlled loops to produce a given outcome	To control a simple circuit connected to a computer To write a program that includes count-controlled loops To explain that a loop can stop when a condition is met To explain that a loop can be used to repeatedly check whether a condition has been met To design a physical project that includes selection To create a program that	To define a 'variable' as something that is changeable To explain why a variable is used in a program To choose how to improve a game by using variables To design a project that builds on a given example To use my design to create a project To evaluate my project To explain that formulas can be used to produce calculated data

		create a program		new context To develop my program by adding features To identify and fix bugs in a program To design and create a maze-based challenge		controls a physical computing project To explain how selection is used in computer programs To relate that a conditional statement connects a condition to an outcome To explain how selection directs the flow of a program To design a program which uses selection	To apply formulas to data To create a program to run on a controllable device To explain that selection can control the flow of a program To update a variable with a user input To use a conditional statement to compare a variable to a value To design a project that uses inputs and outputs on a
Safety and Security	???	To create rules for using technology responsibly	To recognise the uses and features of information technology To explain how to use information technology safely To recognise that choices are made when using information technology To explain that we can present information using a computer		To describe how networks physically connect to other networks To evaluate the consequences of unreliable content To combine images for a purpose	To create a program which uses selection To evaluate my program To capture video using a range of techniques	controllable device To develop a program to use inputs and outputs on a controllable device To consider the ownership and use of images (copyright)