



EYFS: Pre-School	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2			
We are learning about:	_	Children recognise that a range of technology is used in places such as homes and schools. They use a range of technological equipment in their role play							
	,	use technology for particu	• •						
	_		ney were worried about so	mothing thay had soon ar	dono on a dovico				
Development Matters	PSED	day they would talk to it ti	iey were worned about so	mething they had seen of	done on a device				
3-4	1	and resources, with help w	hen needed						
	Literacy	and resources, with help w	men necueu.						
	•	nd letter knowledge in the	eir early writing						
	UTW	•	, ,						
	Explore how things work								
	Name and describe peop	le who are familiar to the	n.						
Sticky Knowledge	Some electronic	devices have a touch scre	en which can be tapped, d	ragged and swiped					
'I will know that'	Some electronic	devices have a keyboard	or buttons which can be pr	essed					
		ds can be typed on a keyb							
	I should speak to	o a trusted adult if I feel ur	nsafe (e-safety)						
Key Vocabulary:	computer								
	tablet								
	iPad								
	mobile phone								
	safe								
	keyboard								





EYFS: Reception	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2					
We are learning about:	Children know that technology can be used for different purposes, including communication and entertainment										
	They understand that tec	They understand that technology changes over time and was different in the past									
	They select and use techr	ology for particular purpos	es in their play								
	They use their developing	phonic knowledge to read	and type using electronic	devices							
	1 .	•	•	• .	or done on a digital device						
	They develop the early vo	cabulary to support them v	with future learning e.g. tha	at linked to position and di	rection for programming						
Development Matters	C&L										
	Use talk to help work o	ut problems and organis	e thinking and activities,	and to explain how thin	gs work and why they mi	ght happen					
	PSED										
	Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of 'screer PD										
	Develop their small motor skills so that they can use a range of tools competently, safely and confidently										
	Literacy										
	Spell words by identifying the sounds and then writing the sound with letter/s.										
	Maths										
	Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'.										
	UTW										
	Name and describe people who are familiar to them.										
	Know some similarities be	etween things in the past a	nd now								
Sticky Knowledge	I should limit the	amount of time I spend lo	oking at a screen								
'I will know that'		ology for different purpose	=	icate with each other							
	-	es that are safe for me to o	· · · · · · · · · · · · · · · · · · ·								
			afe, at home or in school (• •							





Key Vocabulary:	communicate
	device
	computer
	iPad
	mobile phone
	safe
	screen time
	past
	present
	trust

Early Learning Goal/s:

<u>C&L</u>

Speaking:

Offer explanations for why things might happen,

Express their ideas and feelings about their experiences using full sentences,

PSED

Self Regulation:

Show an understanding of their own feelings and those of others, and begin to regulate their behaviour accordingly;

Set and work towards simple goals, being able to wait for what they want and control their immediate impulses when appropriate;

Building Relationships:

Form positive attachments to adults and friendships with peers

Literacy

Writing

Spell words by identifying sounds in them and representing the sounds with a letter or letters $% \left(1\right) =\left(1\right) \left(1\right)$

Write simple phrases and sentences that can be read by others.

Understanding the World

Past and Present:

Talk about the lives of the people around them and their roles in society

Know some similarities and differences between things in the past and now





KS1: Y1	Autumn Term		Spring Term		Summer Term	
	Digital literacy Digital	Information	Computer Science	Digital Literacy	Information technology	Computer Science
What are we learning	literacy Online safety	Technology				
about?		Animation 1.6				
What are we learning	Digital literacy Online	Animated story books	Lego builders 1.4	Technology outside	Pictogram 1.3	Coding 1.7
about?	safety & Exploring Purple	1.6	I can follow a set of	school 1.9	I can use a programme	I can follow a set of
	Mash 1.1	We will learn how to	instructions	I know what a	to create a date that can	instructions and use it
	How to be safe online and	save and re-cover a		monitor tablet	be shared	on digital device
	create a password and	document		keyboard and mouse		
	know the importance			are used for		
	Use technology safely and	Use technology	Understand what	Recognise common	Use technology	Understand what
National Curriculum	respectfully, keeping	purposefully to create,	algorithms are; how	uses of information	purposefully to create,	algorithms are; how
Statements	personal information	organise, store,	they are implemented	technology beyond	organise, store,	they are implemented
	private; identify where to	manipulate and	as programs on digital	school	manipulate and retrieve	as programs on digital
	go for help and support	retrieve digital	devices; and that		digital content.	devices; and that
	when they have concerns	content.	programs execute by			programs execute by
	about content or contact		following precise and			following precise and
	on the internet or other		unambiguous			unambiguous
	online technologies.		instructions.			instructions.
			Create and debug			Create and debug
			simple programs.			simple programs





Sticky Knowledge 'I will know that...'

- To log in safely and understand why that is important.
- To create an avatar and to understand what this is and how it is used.
- To be able to create a picture and add their own name to it.
- To start to understand the idea of 'ownership' of creative work.
- To save work to the My Work area and understand that this is private space.

"To understand the differences between traditional books and e-books.
To explore the tools of 2Create a Story's My Simple Story level.

Simple Story level.
To save the page they have created."
"To add animation to a

"To add animatior p' of picture.

To play the pages

created so far.
To save the additional changes and overwrite the file.

"To add a sound effect to a picture. To add a voice recording to the picture. To add created music to the picture.

"To add a background to the story.
To demonstrate a good understanding of all the tools they have used in 2Create a Story and use these successfully to create their own story."

To emphasise the importance of following instructions. To follow and create simple instructions on the computer.
To consider how the order of instructions affects the result.

what is meant by 'technology'. Children have considered types of technology used in school and out of school. " Children have recorded 4 examples of where technology is used away from school.

"Children understand

"Children can discuss and illustrate the transport used to travel to school. Children can contribute to the collection of class data Children have used these illustrations to create a simple pictogram, " "Children can contribute to a class pictogram. Children can discuss what the pictogram shows. " "Children can collect

data from rolling a die 20 times and recording the results. Children can represent the results as a pictogram. " "Children can give and follow instructions.
Children can draw symbols to represent instructions.
Children can arrange code blocks to create a set of instructions. "
"Children can create a program using code blocks.

and action code blocks. " "Children can create a simple program using

Children can use object

code blocks.
Children can use event,
object and action code
blocks. "

"Children can create a simple program using code blocks.

Children can use event, object and action code blocks.

Children can notice when their code executes when their program is run. "
"Children can edit a scene by adding, deleting and moving objects.





"To use the copy and	Children can change the
paste feature to create	size of objects using the
additional pages.	properties table. "
To continue and	"Children can create a
complete an animated	design plan for their
story.	Free Code Scene
To create a class	program.
display board of the	Children can use code
story books created by	to make the program
the class. "	they have designed
	work."





	Login	"e-book	"Instructions	technology	"Data	"Instructions
Key Vocabulary:	password	sound	algorithm	computer	pictogram	algorithm
Key vocabalary.	private	eraser	<a of<="" td="" variety=""><td>Compater</td><td>visual"</td><td>code</td>	Compater	visual"	code
	home screen	undo	prepositional		title	programmer
	work area				"Collect data	· -
		redo	language>"			coding
	avatar	paint tools	"Program		record results	software
	icon	text	machine		compare	code blocks
	typing	save"	computer"		totals"	object
	saving	"Overwrite	"Recipe			action
	log out	animation	debugging			"
		play mode"	code			"2Do
		"Sound effect	sequence"			command
		voice recording				Design View
		drop-down menu				Code view
		category"				debug\ debugging
		"Background				run"
		clip-art gallery				"Event
		font"				click
		"Copy				sound
		paste				when clicked
		features				output"
		edit"				"Execute
		53.10				"
						"Background
						scale
						scene
						properties
						"
						plan





KS1: Y2	Autum	n Term	Spring Term		Summer Term	
What are we learning about?	Digital literacy Digital literacy Online safety	Information Technology	Computer Science	Digital Literacy	Information technology	Computer Science
What are we learning about?	Online safety 2.2 I can know how to make personal information safe	Questioning 2.4 I can use a digital programme to show data	Coding 2.1 I can follow instructions and debug simple mistakes in a programme	Effective searching 2.5 Able to use a search engine	Making music 2.7 Able to technology to make a digital programme (music) Understand that music can be made digitally	Maze explorers 1.5/ Able to create simple programmes and debug where thing is not working.
National Curriculum Statements	Use technology safely and respectfully, 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.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs.	Recognise common uses of information technology beyond school	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs





Sticky Knowledge	To know how to refine	To show that the	"To understand what	To understand the	"To be introduced to	"To understand the
I will know that'	searches using the	information provided	an algorithm is.	terminology	making music digitally	functionality of the basic
	Search tool.	on pictograms is of	To create a computer	associated with the	using 2Sequence.	direction keys in
	To know how to share	limited use beyond	program using an	Internet and	To explore, edit and	Challenges 1 and 2.
	work electronically	answering simple	algorithm."	searching.	combine sounds using	To be able to use the
	using the display	questions	" To create a program	To gain a better	2Sequence."	direction keys to
	boards.	To use yes/no questions	using a given design.	understanding of	"To add sounds to a tune	complete the challenges
	To use digital	to separate information	To understand the	searching the Internet.	to improve it.	successfully."
	technology to share	To construct a binary	collision detection	To create a leaflet to	To think about how	"To understand the
	work on Purple Mash to	tree to separate	event.	help someone search	music can be used to	functionality of the basic
	communicate and	different items.	"	for information on the	express feelings and	direction keys in
	connect with others	Use 2Question (a binary	"To understand that	Internet.	create tunes which	Challenges 3 and 4.
	locally.	tree) to answer	algorithms follow a		depict feelings."	To understand how to
	To have some	questions	sequence.		"To upload a sound from	create and debug a set
	knowledge and	"To use a database to	To design an algorithm		a bank of sounds into	of instructions
	understanding about	answer more complex	that follows a timed		the Sounds section.	(algorithm).
	sharing more globally	search questions.	sequence.		To record their own	"
	on the Internet.	To use the Search tool	"		sound and upload it into	"To use the additional
		to find information."	"To understand that		the Sounds section.	direction keys as part of
			different objects have		To create their own tune	their algorithm.
			different properties.		using the sounds which	To understand how to
			To understand what		they have added to the	change and extend the
			different events, do in		Sounds section."	algorithm list.
			code.			To create a longer
			"			algorithm for an
			"To create a program			activity."
			using a given design.			
			To understand the			
			function of buttons in			
			a program.			
			"			
			"To know what			
			debugging means.			
			To understand the			

need to test and





debug a program repeatedly. To debug simple programs."	
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Key Vocabulary:	search	"Pictogram	"Instruction	"Internet	"Tune	" Direction
·	filter	data	algorithm	World Wide Web	compose	forwards
	internet	information"	event	network	note	backwards
	sharing	"Sort	object	device	speed	left
	display board	avatar	action	web page	beats	right
	email	question"	command	browser	volume"	keys
	attachment	binary tree	scene	website	"Tempo	challenge
	reply		background	domain	sound effect	undo
	personal information	"Database	properties	web address	repeat	rewind
	private information	record	scale	URL	bars"	route
	digital footprint	field	click events	search engine"	"Soundtrack	delete command
	protection	search	collision detection	Digital Footprint		Unit"
	identifying	"	predict"		II .	"Algorithm
	secure		"Interaction			debug
			collision detection			"
			event			
			collision detection			
			action			
			image			
			implement"			
			"Timer			
			interval			
			sequence			
			output"			
			"Properties			
			turtle object			
			when key event			
			when swiped event			
			when clicked event"			
			"Button object name			
			text"			
			"Bug debugging test"			





KS2: Y3	Autumn	Term	Sprii	ng Term	Summer Term		
What are we learning about?	Digital literacy Online safety	Information technology	Computer science	Digital literacy	Information Technology	Computer Science	
What are we learning about?	Online safety 3.2 Be able create password and know the reason we use them. How to behave online	Touch typing 3.4 Able to use a programme to achieve a goal and follow instructions	Coding 3.1 Beginning to write programme which have control.	Email 3.5 Able to understand how email works and how to use it correctly and safely	Presenting 3.9 Present date using a specific programme	Micro bit 3.10 Design and debug a programme using coding	
National Curriculum Statements	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	





Sticky Knowledge
'I will know that'

To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away.

To understand how the

To understand how the Internet can be used to help us to communicate effectively.

To consider if what can be read on websites is always true.

To think about why these sites might exist and how to check that the information is accurate.

To learn about the meaning of age restrictions symbols on digital media and devices.
To discuss why PEGI

restrictions, exist.
To know where to turn for help if they see inappropriate content or have inappropriate contact from others.

"To introduce typing terminology.

To understand the correct way to sit at the keyboard.
To learn how to use the home, top and

bottom row keys.

To practice and improve typing for home, bottom, and

To practice the keys typed with the left hand.

top rows.

To practice the keys typed with the right hand.

"To review previous coding knowledge.
To understand what a flowchart is and how flowcharts are used in computer

computer programming."
"To understand that there are different types of timers.

To be able to select the right type of timer for a purpose."
To understand how to use the repeat command.

"To use coding knowledge to create a range of programs. To understand the importance of nesting."

To design and create an interactive scene.

To think about the different methods of communication.

"To open and respond to an email. To write an email to someone from an

"

address book.

To learn how to use email safely.
To learn how to use email safely.
To add an attachment to an email.
To explore a simulated email scenario.

• To create a page in a presentation.

• To add media to a presentation

• To add animations into a presentation

• To use the skills learnt in previous weeks to design and present an effective presentation.

• To use the skills learnt in previous weeks to design and present an effective presentation.

"• Understand the micro: bit is a tiny computer which needs instructions in code to make it work.

• Use Free Code micro: bit to create instructions in code that the micro: bit can understand and then transfer them to the micro: bit.

 Know the micro: bit has an LED display output which it can use to show words (as well as numbers and pictures)."

"• Understand that sequence and timing is important when making an animation.

 Understand that animations create an illusion of movement by showing a sequence of still images.

• Code the micro: bit to show simple animations on its LED display output. "

"• Code the micro: bit to make different outputs happen depending on different inputs.





			 Understand that
			inputs and outputs
			involve the flow of data
			in and out of computers.
			 Apply this knowledge
			using the micro: bit's
			button inputs and
			display output. "
			"• Understand how
			sensor inputs from the
			accelerometer can be
			used to detect
			movement.
			 Understand how to
			create sounds and music
			using the music editor.
			 Apply this knowledge
			using the micro: bit's
			gesture inputs and
			sound output."



Watermoor C of E Primary School Subject Progression 2024-2025



Subject: Computing

Key Vocabulary:	password	posture	"Timer	"Communication	"Textbox	Free Code	
	personal information	typing	sequence	mind mapping	presentation	Micro-bit	
	blog	keys	nested"	node	font formatting"	degrees"	
	permission	spacebar	"Repeat	link"	"Media	"Nesting	
	vlogs		input	"Email	slide	test	
	appropriate		command	compose	editing	debug"	
	Internet		button	address book	video"	"Actions	
	website		right-angle	inbox"	"Animation	object type	
	spoof		degrees"	"Trusted contact	transition		
	verify		"Nesting	personal information	preview"		
	reputable source		test	password	review		
	Inappropriate		debug"	Save to draft"			
	Permission		"Actions				
			object type	"Attachment			
			alert	CC - carbon copy"			
			II	BCC - blind carbon copy			





KS2: Y4	Autumi	n Term	Spring	g Term	Summer Term	
What are we learning about?	Digital literacy Online safety	Information technology	Computer science	Computer science	Information Technology	Computer Science
What are we learning about?	Online safety 4.2 We are going to use SMART and understand what it means to be safe online	Animation 4.6 Able to use a programme to create a stop animation	Coding 4.1 Create a simple programme which has a back ground and a game	Logo 4.5 Use programme to create a logo	Spreadsheets 4.3 Collect and use date and put them into a spread sheet and be able to produce a graph	Micro bits 4.11 Create a simple programme which has a back ground and a game
National Curriculum Statements	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.





Sticky Knowledge
'I will know that'

- "To understand how children can protect themselves from online identity theft.
- •To understand that information put online leaves a digital footprint or trail and that this can aid identity theft.

To identify the risks and benefits of installing software including apps. "To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism.

•To identify appropriate behaviour when participating or contributing to collaborative online projects for learning.

"To identify the positive and negative influences of technology on health and the environment. To understand the importance of balancing game and screen time

- "• To decide what makes a good, animated film or cartoon and discuss favourite animations.
- To learn how animations are created by hand.
- To find out how
 2Animate animations
 can be created in a
 similar way using
 technology."
- To learn about onion skinning in animation.
- To add backgrounds and sounds to animations."
- "• Introducing 'stop motion' animation.
- To share animation the class blog."

- "• To review coding vocabulary and knowledge.
- To create a simple computer program.
- "• To begin to understand selection in computer programming.
- To understand how an IF statement works."
- "• To understand how to use co-ordinates in computer programming.
- To understand how an IF statement works.
- "• To understand the Repeat until command.
- To begin to understand selection in computer programming.
- To understand how an IF/ELSE statement works."
- "• To understand what a variable is in programming.
- To use a number variable.

- "• To learn the structure of the language of 2Logo.
- To input simple instructions in 2Logo"
- To use 2Logo to create letter shapes.
- To use the Repeat command in 2Logo to create shapes.
- To use and build procedures in 2Logo.

- "• To explore how the numbers entered into cells can be set to either currency or decimal.
- To explore the use of the display of decimal places.
- To find out how to add formulae to a cell."
- "• To explore how tools can be combined to use 2Calculate to make number games.
- To explore the use of the timer, random number and spin button tools."
- "• To use the line graphing tool in 2Calculate with appropriate data.
- To interpret a line graph to estimate values between data readings.
- "• To use the currency formatting tool in 2Calculate.
- To use 2Calculate to create a model of a reallife situation.
- To use the functions of allocating value to images in 2Calculate to

- "•Understand how inputs, outputs, and computer code work together to make control systems.
- •Understand how logic (conditional 'IF/ELSE' instructions) is used to make different outputs happen depending on changes in data from a sensor.
- •Use 'repeat forever' infinite loops to keep control systems responding to changes in the environment."

 "•Use the accelerometer via the 'when gesture:
- shake' block to start the code running.

 Make use of logical 'IF'
- conditional instructions.

 •Apply these concepts to make a computer simulation of a real-world game."
- "•Use the accelerometer via the 'when gesture: shake' command to start the code running.
- •Make use of more complex logical 'IF' conditional instructions.





	with other parts of their lives.".		"• To review vocabulary and concepts learnt in Year 4 Coding. • To create a playable game.		make a resource to teach place value.	•Apply these concepts to make a computer simulation of a real- world tool."
Key Vocabulary:	"Report SMART rules Spam attachment phishing digital footprint" "Malware software virus AdFly ransomware cookies" "Plagiarism watermark citation copyright collaborating" "Data analysis collaborative database"	"Animation frame fps (frames per second) pause" onion skinning stop motion	"Background button object properties code block predict event debugging action" "Selection if statement decision command" "Coordinate flowchart" "Repeat until if/else statement inputs execute" "Variable number variable" "Alert	"2Logo grid run speed Logo commands (e.g. FD BK RT LT) prediction" "Pen up Pen down multi line mode debugging" Repeat "Procedure SETPC SETPS"	"Formula wizard percentages decimal place format cell average" "Equal tool random number tool spinner tool timer" "Line graph data chart resize" "Budget totals calculations" "Place value 'Is equals to' tool set image"	"Infinite loop Logic Light sensor Variable" "Conditionals Gestures Selection Simulation Variable" "Conditionals Gestures Selection Simulation Logic"





KS2: Y5	Autumn Term		Sprii	ng Term	Summe	er Term
What are we learning about?	Digital literacy Online safety	Information technology	Computer science	Computer science	Information Technology	Computer Science
What are we learning about?	On line safety5.2 How to act and behave online	Spreadsheet 5.6 Collect date create a spread sheet and present data	Coding 5.1 Create background and moving parts	Game creator 5.5 Create a computer game	3d Modelling 5.6 Use a programme to create model.	Using external devices 5.9 Able to write a simple programme from a set of instructions
National Curriculum Statements	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.





Sticky Knowledge
'I will know that'

- "• To gain a greater understanding of the impact that sharing digital content can have.
- To review sources of support when using technology.
- To review children' responsibility to one another in their online behaviour."
- "• To know how to maintain secure passwords.
- To understand the advantages, disadvantages, permissions, and purposes of altering an image digitally and the reasons for this.
- To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online."
- "• To learn about how to reference sources in their work.
- To search the Internet with a consideration for the reliability of the results of sources to check

- "• To usef formulae within a spreadsheet to convertmeasurements of length and distance."
 - "• To use the count tool to answer hypotheses about common letters in use."
 - "• To use a spreadsheet to model a real-life problem.
 - To use formulae to calculate area and perimeter of shapes."
 - To create formulae that use text variables."
 - "• To use a spreadsheet to help plan a school cake sale."

- "• To review existing coding knowledge.
- To be able to simplify code.
- To create a playable game."
- "• To understand what a simulation is.
- To program a simulation using 2Code."
- "• To know what decomposition and abstraction are in Computer Science.
- To take a real-life situation, decompose it and think about the level of abstraction.
- To use decomposition to make a plan of a reallife situation."
- "• To understand how to use friction in code.
- To begin to understand what a function is and how functions work in code."
- "• To understand what the different variable

- "• To Introduce the 2DIY 3D tool.
- To begin planning a game.
- To design the game

environment.

- "• To design the game quest to make it a playable game."
- "• To finish and share the game."
- "• To self- and peer-evaluate."

- "• To be introduced to the 2Design and Make tool.
- "• To explore the effect of moving points when designing."
- "• To design a 3D model to fit certain criteria."
- "• To refine and print a model. "

- "• To understand what the different variable types are and how they are used differently.
- To understand how to create a string."
- "• To begin to explore text variables when coding.
- To understand what concatenation is and how it works."
- "• To understand what Purple Chip is.
- To be able to upload a program to an external device.
- To adapt a program and operate it using Purple Chip"
- To understand how a device can be programmed to be used as a game controller.
- "• To explore the text functions available and appraise their uses.
- To create a simple quiz program that can be answered using an external device."
- To create a program in which an external device can be used to





validity and understand	types are and how	monitor real world
the impact of incorrect	they are used	conditions.
information. 🕮	differently.	To design a program
"• Ensuring	• To	for the Purple Chip
reliability through using	understand how to	• To code, test, debug
different methods of	create a string."	and share a program for
communication."	"• To begin to	the Purple Chip
	explore text variables	
	when coding.	
	• To	
	understand what	
	concatenation is and	
	how it works."	





Key Vocabulary:	"Responsibility	"Formula	"Event	"Evaluation	"Net	"QR code
	SMART rules"	formulae	key press	theme	template	design view
	"Encrypt	conversion	collision	scene	3D view	code view
	critical thinking	advanced mode	object	textures	pattern fill"	input
	image manipulation	copy and paste"	action	images"	points	output
	avatar"	"Advanced mode	variable	screenshot	design brief	URL
	"Citation	'How many?' tool	selection	quest	3D Printing	external device
	validity	Variable"	if/else statements	instructions		simulator\ emulator
	reliability	"Perimeter	coordinates	"Feedback		host"
	plagiarism	area	simplify	promotion"		"Algorithm
	bibliography	modelling"	efficient			event
	copyright	"Text variables	computer generated			debug
	creative commons	cell format	variable"			variable"
	licence"	totalling tool"	"Simulation			"Print to screen
	communication	"Budget	physical system			alert
		profit"	algorithm			function
			properties"			if/else
			"Decomposition			chip show text"
			abstraction"			sensor
			"Friction			
			function			
			predict			
			i			
			"String			
			variables			
			values			
			tabs			
			text variable			
			collision			
			when key			
			random			
			output"			
			"Concatenation			
			print to screen			
			tabs			





'if' statement 'if/else' statement"		





KS2: Y6	Autumr	n Term	Sprii	ng Term	Summe	er Term
What are we learning about?	Digital literacy Online safety	Information technology	Computer science	Digital literacy	Information Technology	Computer Science
What are we learning about? National Curriculum	Online safety 6.2 Behaviour online and know what is acceptable Use technology safely,	Quizzing 6.7 Use a computer programme to create a information Understand computer	Coding 6.1 Design, write and debug a programme Design, write and	Blogging 6.4 Write using a technology be able to safe and input media into a programme Use technology safely,	Spreadsheets 6.3 Use a programme to collect and analyse date Select, use and combine	Text Adventures 6.5 Design, write and debug a programme Design, write and debug
Statements	respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.





Sticky Knowledge
'I will know that'

- "•To identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g., apps accessing location. •To identify secure sites by looking for privacy seals of approval, e.g., https, padlock icon. •To identify the benefits and risks of giving personal information and device access to different software." "•To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user. •To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour. •To begin to understand how information online can persist and give
- "•To create a picturebased quiz for young children."
- "•To learn how to use the question types within 2Quiz."
- "•To learn how to use the question types within 2Quiz."
- "•To explore the grammar quizzes."
 "•To make a quiz that
- requires the player to search a database."
- "•To develop skills in creating surveys and questionnaires.
- •To use a survey to gain information rather than scores."

"To design a playable game with a timer and a score.

To plan and use selection and variables.

To understand how the launch command works. "

"To design a playable game with a timer and a score.
To plan and use

selection and variables.
To understand how the launch command

works. "

"To use functions and understand why they are useful.

To understand how functions are created and called.

"To use flowcharts to test and debug a program.

To create a simulation of a room in which devices can be controlled."
"To understand the different options of

- "•To identify the purpose of writing a blog.
- •To identify the features of successful blog writing."
- To plan the theme and content for a blog.
- "•To understand how to write a blog and a blog post.
- •To consider the effect upon the audience of changing the visual properties of the blog.
- •To understand how to contribute to an existing blog."
- "•To understand the importance of commenting on blogs.
- •To peer-assess blogs against the agreed success criteria.
- •To understand how and why blog posts and comments are approved by the teacher."

To use a spreadsheet to investigate the probability of the results of throwing many dice.

"•To use a spreadsheet to calculate the discount "•

- and final prices in a sale.
 Create a formula to help
 work out the prices of
 items in the sale."

 "•To use a spreadsheet
- to plan how to spend pocket money and the effect of saving money." "•To use a spreadsheet to plan a school charity
- to plan a school charity day to maximise the money donated to charity."

 "•To use a spreadsheet
- to plan a school charity day to maximise the money donated to charity."

"• To find out what a text-based adventure game is and to explore an example made in 2Create a Story.

- To use

 2Connect to plan a

 'Choose your own

 Adventure' type story."
- Adventure' type story."

 To use

 2Connect plans for a story adventure to make the adventure using 2Create a Story."

 To read and understand given code for a text adventure game.





away details of those	generating user input
· · · · · · · · · · · · · · · · · · ·	generating user input
who share or modify it."	in 2Code.
"To understand the	To understand how
importance of balancing	user input can be used
game and screen time	in a program."
with other parts of their	To understand how
lives, e.g., explore the	2Code can be used to
reasons why they may	make a text-based
be tempted to spend	adventure game.
more time playing games	
or find it difficult to stop	
playing and the effect	
this has on their health.	
To identify the positive	
and negative influences	
of technology on health	
and the environment."	



Watermoor C of E Primary School Subject Progression 2024-2025



Subject: Computing

Key Vocabulary:	"Secure websites	"Quiz	"Algorithm	"Blog	"Count tool	text adventure
	location sharing	audience	action	vlog	dice tool	"Sprite
	spoof websites	copy\paste	output	archive	chart	link"
	phising	selfie	selection	blog post"	Formula wizard"	"Functions
	password	undo\redo	variables	"Collaborate	"Computational model	selection
	PEGI"	audio	repeat	nodes	percentage	variables
	"Digital footprint	clipart	timer	connections	format	repeat
	inappropriate	image filter	launch command	11	move tool"	step through
	II .	п	debug		"Budget	flow of control"
	"Print screen	"Preview	alert	"Commenting	Advanced mode"	"Functions
	screen time	case-sensitive"	string	approval"	"Profit	selection
	data analysis"	"Preview	x and y properties		expenses"	variables
		case-sensitive"	coordinates		"Profit	repeat
		cloze	decomposition		expenses"	debugging
		"Database	object			QR code"
		record	event"			
		field	"Algorithm			
		statistics	action			
		п	output			
		"Data	selection			
		survey	variables			
		participants	repeat			
		data analysis"	timer			
			launch command			
			debug			
			alert			
			string			
			x and y properties			
			coordinates			
			decomposition			
			object			
			event"			
			"Function			
			turtle object			
			text object			





execute function call tabs" "Flowchart simulation procedure" "Input concatenation" text adventure		
text daventure		