

# Choices + Vocabulary



#### **Computing Curriculum Overview**

<u>EYFS</u>	<u>Y1</u>	<u>Y2</u>	<u>Y3</u>	<u>Y4</u>	<u>Y5</u>	<u>Y6</u>
Exploring Technology	Technology around us	Information technology around us	Connecting computers	The internet	Systems and searching	Communication and collaboration
Winter Warmers	Digital painting (G)	Digital photography (P&V)	Stop-frame animation (G, P&V)	Photo editing (G, P&V)	Introduction to vector graphics (G)	Webpage creation (T)
Spring Time	Moving a robot	Robot algorithms	Sequencing sounds	Repetition in shapes	Selection in physical computing	Variables in games
People that help us	Digital writing (T)	Digital music (A)	Desktop publishing (T)	Data logging	Flat-file databases	Introduction to spreadsheets
Transport	Programming animations	Programming quizzes	Events and actions in programs	Repetition in games	Selection in quizzes	Sensing movement
	OPTIONAL Grouping data	OPTIONAL Pictograms	OPTIONAL Branching databases	OPTIONAL Audio production (A)	OPTIONAL Video production (P&V,A)	OPTIONAL 3D modelling (G)

NOTE: T= Text, A= Audio, V= Video, G= Graphics

#### Subject Progression Computing Declarative Concepts Overview



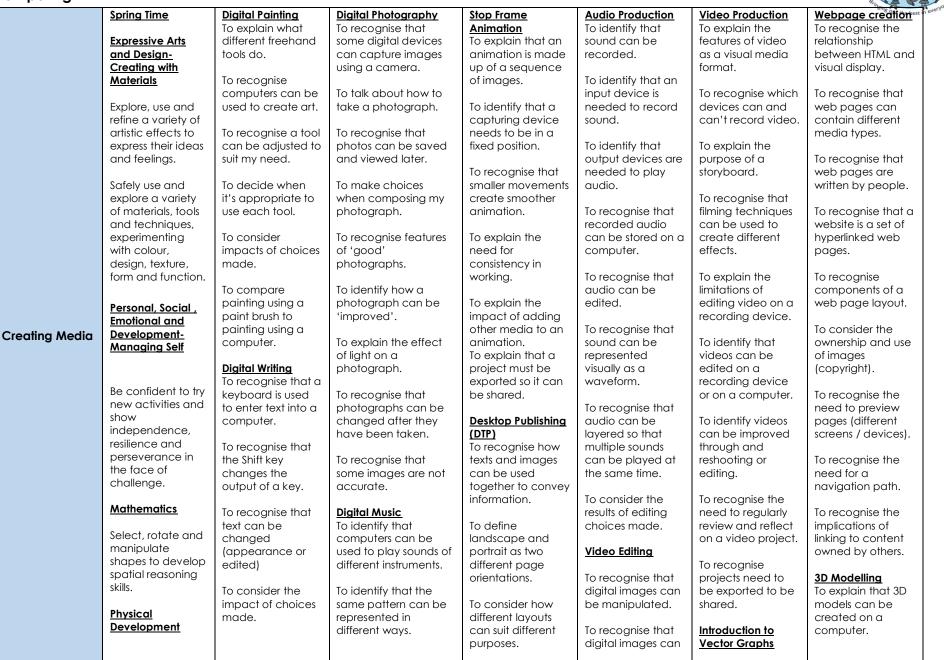
EYFS				<u>Y1</u>		<u>Y2</u>		<u>Y3</u>					<u>Y</u>	<u>4</u>			<u>Y5</u>					<u>Y6</u>																			
	Exploring Technology	Winter Warmers	Spring Time	People that Help us	Transport	Technology around us	Digital painting	Moving a Robot	Grouping Data	Digital Writing	Programming Animations	Information Technology Around us	Digital Photography	Robot Algorithms	Pictograms	Digital Music	Programming quizzes	Connecting Computers	Stop-frame Animations	Se quencing Sounds	Branching Databases	Desktop Publishing	Events and Actions in Programs	The Internet	Audio Production	Repetition in Shapes	Data Logging	Photo Editing	Repetition in Games	Systems and Searching	Video Production	Selection in Physical Computing	Flat-file databases	Introduction to Vector Graphics	Selection in quizzes	Communication and Collaboration	Webpage Creation	Variables in games	Intro to spreadsheets	3D Modelling	Sensing Movement
Computing Systems and Networks	~					$\checkmark$						$\checkmark$						$\checkmark$						$\checkmark$						$\checkmark$						$\checkmark$					
Creating Media			~	~			~			~			~			$\checkmark$			~			~			$\checkmark$			$\checkmark$			~			$\checkmark$			~			~	
Programming		~		~	<			$\checkmark$			~			$\checkmark$			~			~			$\checkmark$			~			<			~			~			$\checkmark$			~
Data Information		~			$\checkmark$				~						$\checkmark$						~						~						$\checkmark$						$\checkmark$		
Online Safety	~	$\checkmark$	~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	~	$\checkmark$	$\checkmark$	$\checkmark$	~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$



### Declarative Knowledge and Concepts

	EYFS	<u>Y1</u>	<u>Y2</u>	<u>Y3</u>	<u>Y4</u>	<u>Y5</u>	<u>Y6</u>
	<ul> <li>Exploring Technology</li> <li>Winter Warmers</li> <li>Spring Time</li> <li>People that Help us</li> <li>Transport</li> </ul>	<ul> <li>Technology around us</li> <li>Digital Painting</li> <li>Moving a robot</li> <li>Digital writing</li> <li>Programming animations</li> <li>Grouping data (Optional)</li> </ul>	<ul> <li>Information technology around us</li> <li>Digital photography</li> <li>Robot algorithms</li> <li>Digital Music</li> <li>Programming quizzes</li> <li>Pictograms (Optional)</li> </ul>	<ul> <li>Connecting Computers</li> <li>Stop Frame Animations</li> <li>Sequencing Sounds</li> <li>Desktop Publishing</li> <li>Events and Actions in programs</li> <li>Branching Databases (Optional)</li> </ul>	<ul> <li>The Internet</li> <li>Repetition in shapes</li> <li>Data logging</li> <li>Photo Editing</li> <li>Repetition in Games</li> <li>Audio Production (Optional)</li> </ul>	<ul> <li>Systems and Searching</li> <li>Selection in Physical Computing</li> <li>Flat File Databases</li> <li>Introduction to Vector Graphics</li> <li>Selection in Quizzes</li> <li>Video Production (Optional)</li> </ul>	<ul> <li>Communication and Collaboration</li> <li>Webpage Creation</li> <li>Variables in games</li> <li>Introduction to spreadsheets</li> <li>Sensing movement</li> <li>3D- modelling (Optional)</li> </ul>
	Exploring	Technology	Information	Connecting	The internet	Systems and	Communication
	<u>Technology</u> <u>Understanding the</u> <u>World</u>	Around Us To explain that technology is something that	Technology Around Us To recognise different types of computers used in school.	Computers To describe what an input is.	To describe how networks connect to other networks.	searching To recognise that a system is a set of interconnected	and Collaboration To recognise that data is transferred across networks
	Explore how things	can help us.	To recognise that a	To explain that a process acts on	To outline how information can be	parts which work	using agreed protocols
	work.	To identify examples of	computer is part of information	the inputs.	shared via the World Wide Web.	together. To explain that	(methods).
	<u>Physical</u> Development	technology.	technology.	To explain that an output is produced	To recognise that	computers can be connected	To recognise that connections
	Develop their small motor skills so that they can use	To explain how examples of technology help us.	To recognise the features of information technology.	by the process. To identify how changing the	the World Wide Web is part of the internet.	together to form IT systems. To identify that	between computers allow access to shared stored files.
Computing Systems and Networks	a range of tools competently, safely and confidently.	To recognise that a computer is an example of	To talk about uses of information technology.	process can change the output.	To explain that the global interconnection of networks is the	data can be transferred between IT systems.	To explain that data is transferred in packets.
		technology.	To say how rules for using information	To recognise that a digital device is	internet.	To recognise	To recognise
		To recognise that choices are made when using	technology can help us.	made up of several parts.	To recognise the need for security on the internet.	inputs, processes, and outputs in large IT systems.	computers connected to the internet allow
		technology. To explain why rules are needed	To explain how information technology benefits us.	To explain how computer systems can change the way we work.	To describe how to access the World Wide Web.	To describe the role of a particular IT system in their	people in different places to work together.
		when using technology.	To recognise that choices are made when using information technology.	To recognise that computers can be connected to each other.	To describe the types of content/media that can be added, created,	lives. To relate that search engines are examples of large IT systems.	To discuss the opportunities that technology offers for communication and collaboration.







Computina Develop their To compare playing To recognise that be changed for To identify that a To recognise that small motor skills so music on instruments DTP pages can be different purposes. vector drawina 3D environment structured with can be viewed that they can use with making music on comprises from different a range of tools a computer. placeholders. To choose the separate objects. competently, most appropriate perspectives. safely and To recognise how tool for a particular To recognise that confidently. different font styles purpose. each object in a To recognise that and effects are drawing is in its digital tools can be used for particular a particular own layer. used to manipulate purposes. purpose To 3D objects. consider the To recognise that To consider the impact of changes vector images can To show how benefits of using a made on the be scaled without placeholders can DTP publication. auality of the impact on auality. create holes in 3D image. objects. To recoanise that To recognise that obiects can be modified in groups. artefacts can be broken down into a collection of 3D To explain how alignment and size objects. guides can help create a more consistent drawina. To consider the impact of choices made. Winter Warmers. Moving a robot/ **Robot Algorithms/** Seavencina Repetition in Selection in Variables in People who Help Programming Programming quizzes Sounds/ Events shapes/Repetition Physical games/ Sensing us, Transport Animations To describe that a and actions in in games Computina/ movements To recall words series of instructions is programs To relate what Selection in auizzes To define a **Mathematics** that can be To explain that 'repeat' means. To explain that a 'variable' as a sequence. programs start enacted. condition can only something that is because of an be true or false. To explain what To identify changeable. Solve real world To explain what a input. everyday tasks happens when we mathematical given command change the order of that include To relate that a To identify problems with instructions. repetition as part count-controlled examples of does. To explain what a numbers up to 5. seauence is. of a sequence, loop contains a information that is Programming To match a To recall that a set of e.g. brushing teeth, condition. variable, for Discuss routes and To identify that a command to an instructions can be dance moves. example, a locations, using outcome. issued before they are program includes To compare a football score words like 'in front enacted. sequences of To explain that we count-controlled during a match. of' and 'behind'. To understand that commands. can use a loop loop with a To recognise that you condition-To explain that a a program is asset command in a Notice and of commands that can predict the To identify that the program to repeat controlled loop. variable can be correct an error in a computer can outcome of a sequence of a instructions. used in a program, a repeating To explain that a run. program. program is a e.g. 'score'. pattern. process. To identify patterns conditionin a sequence. controlled loop will

**Subject Progression** 



events, real or fictional, using words such as 'first', 'then.be issued before they are enacted.the outcome of a program.commands can affect a program's output.within a program.To explain that in programming there are indefinite loops and count- controlled loops.as a placehol memory for a single value.Continue, copy and create repeating patterns.the outcome of a program.commands can affect a program's output.within a program.To explain that in programming there are indefinite loops and count- controlled loops.To explain that you complete a cycle before it stops.To explain that memory for a single value.Notice and correct an error in a repeating pattern.Notice and correct an error in a repeating pattern.Notice and correct an error in a repeating pattern.Notice and correct an error in a repeating pattern.the outcome of a program.To identify that different sequences can achieve different sequences can achieve differentwithin a program.To explain that when a condition is met, a loop will complete a cycle before it stops.To explain that selection can be used to branch the flow of a program.Notice and correct an error in a repeating pattern.Notice and correct an error in a repeating pattern.the outcome of a program.To identify that different sequences can achieve different sequences can achieve differentTo explain that a loop to stop after a specific number of times.To explain that a loop can be usedTo explain that a loop can be used <th>Computing</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Computing							
Physical Development       Develop their small motor skills so that they can use a range of tools completently.       Develop their small motor skills so that they can use a range of tools completently.       Develop their small motor skills so that they can use a range of tools completently.       To explain the indefinite loop and when not to.       To explain the instruction order in stage).       To explain the instruction order in a loop.       To define the variables can updated.         To confidently.       To identify tho instruction order in a loop.       To explain the instruction order in a loop.       To identify tho variables can updated.         To recognise that nor all tools enable more than one process to be run at once.       To recognise that nor all tools enable more than one process to be run at once.       To recognise that nor all tools enable       To recognise the importance o setting up a		a sequence of events, real or fictional, using words such as 'first', 'then. Continue, copy and create repeating patterns. Notice and correct an error in a repeating pattern. Physical Development Develop their small motor skills so that they can use a range of tools competently, safely and	of instructions can be issued before they are enacted. To choose a command for a	reasoning to predict the outcome of a	order of commands can affect a program's output. To identify that different sequences can achieve the same output. To identify that different sequences can achieve different	<ul> <li>within a program.</li> <li>To explain that in programming there are indefinite loops and count-controlled loops.</li> <li>To explain that you can program a loop to stop after a specific number of times.</li> <li>To identify patterns in a sequence, eg 'step 3 times' means the same as 'step, step, step'.</li> <li>To explain that an indefinite loop will run until the program is stopped.</li> <li>To justify when to use a loop and when not to.</li> <li>To explain the importance of instruction order in a loop.</li> <li>To recognise that not all tools enable more than one process to be run</li> </ul>	condition is met. To explain that when a condition is met, a loop will complete a cycle before it stops. To explain that selection can be used to branch the flow of a program. To explain that a loop can be used to repeatedly check whether a condition has been met. To explain the importance of instruction order in 'ifthenelse'	<ul> <li>program variable as a placeholder in memory for a single value.</li> <li>To explain that a variable has a name and a value.</li> <li>To recognise that the value of a variable can be used by a program.</li> <li>To recognise that the value of a variable can be updated.</li> <li>To identify that variables can hold numbers (integers) or letters (strings).</li> <li>To define the way that a variable is changed.</li> <li>To identify that variables can hold numbers (integers) or letters (strings).</li> <li>To define the way that a variable is changed.</li> <li>To recognise that a variable can be set as a constant (fixed value).</li> <li>To explain the importance of setting up a variable at the start</li> </ul>



Computing							
							To explain that there is only one value for a variable at any one time.
							To explain that if you read a variable, the value remains.
							To explain that if you change the value of a variable, you cannot access the previous value (cannot undo).
							To explain that the name of a variable needs to be unique.
							To explain that the name of a variable is meaningless to the computer.
-	Winter Warmers	Grouping Data	Pictograms	Branching	Data Logging	Flat-file databases	Introduction to
	and People Who	To identify that	To use a tally chart to	Databases	To suggest	To explain that a	spreadsheets
	Help Us	objects can be	collect data.	To investigate	questions that can	computer program	To identify
		counted.		questions with	be answered using	can be used to	questions that can
	<u>Mathematics</u>	To us a surface the set	To compare objects	yes/no answers.	a table of data.	organise data.	be answered using
	Count objects,	To recognise that information can be	that have been grouped by attribute.	To identify	To identify data	To explain that	spreadsheet data.
	actions and	presented.	grouped by dimbure.	attributes that you	that can be	tools can be used	To explain what an
	sounds.		To complete a given	can ask yes/no	logged over time.	to select data to	item of data is in a
		To recognise that	comparison question,	questions about.		answer questions.	spreadsheet.
Data	Link the number symbol (numeral)	information can be presented in	e.g. There are more balls than	To select an	To identify that sensors are input	To outline how	To explain how the
Information	with its cardinal	different ways.	balls.	attribute to	devices.	ordering data	data type
	number value.			separate objects		allows us to answer	determines how a
			To suggest	into two similarly	To recognise that a sensor can be	some questions.	spreadsheet can process the data.
			appropriate headings for tally charts and	sized objects.	used as an input	To outline how	process me daid.
			pictograms.	To explain that a	device for data	operands can be	To outline that
				branching	collection.	used to filter data.	there are different
			To explain that we can	database is an	Te eveletie de et -		software tools to
			present information using a computer.	identification tool.	To explain that a data logger	To outline how 'AND' and 'OR'	work with data.
					captures 'data	can be used to	



Componing							
			To use a computer	To recognise that a	points' from sensors	refine data	To explain that out the best neve
			program to present	data set can be	over time.	selection.	formulas can be
			information in different	structured using			used to produce
			ways.	yes/no questions.		To explain that	calculated data.
						computer	
			To give simple	To explain that a		programs can be	To recognise cells
			examples of why some	well-structured		used to compare	can be linked.
			information should not	branching		data visually.	
			be shared.	database will			To explain why
				enable you to		To explain that we	data should be
				identify objects		present information	organised in a
				using fewer		to communicate a	spreadsheet.
				questions.		message.	
							To recognise that a
				To relate two levels			cell's value
				of a branching			automatically
				database using			updates when the
				AND.			value in a linked
							cell is changed.
				To suggest real-			
				world applications			To evaluate results
				for branching			in comparison to
				databases.			the question asked.
	<u>Personal, Social ,</u>	Self-Image and	Self-Image and	Self-Image and	Self-Image and	Self-Image and	Self-Image and
	Emotional and	Identity	<u>Identity</u>	Identity	<u>Identity</u>	<u>Identity</u>	<u>Identity</u>
	Development-	l can recognise	I can explain how	I can explain what	I can explain how	I can explain how	l can describe
	Managing Self	that there may be	other people may look	is meant by the	my online identity	identify online can	issues online that
		people online who	and act differently	term 'identity'.	can be different to	be copied,	could make
	Remember rules	could make	online and offline.		my offline identity.	modified or	anyone feel sad,
	without needing	someone feel sad,		l can explain ways		altered.	worried,
	an adult to remind	embarrassed or	I can give examples of	in which someone	l can describe		uncomfortable or
	them.	upset.	issues online that might	might change their	positive ways for	<u>Online</u>	frightened. I know
			make someone feel	identity depending	someone to	Relationships	and can give
	Know and talk						Ű,
		If something	sad, worried,	on what they are	interact with others	I can explain that	examples of how
	about the	happens that	uncomfortable or	doing online (e.g.	interact with others online and	I can explain that there are some	examples of how to get help, both
Online Safety	about the different factors	happens that makes me feel	uncomfortable or frightened: I can give	doing online (e.g. gaming; using an	interact with others online and understand how	I can explain that there are some people I	examples of how
	about the different factors that support their	happens that makes me feel sad, worried,	uncomfortable or frightened: I can give examples of how they	doing online (e.g. gaming; using an avatar; social	interact with others online and understand how this will positively	I can explain that there are some people I communicate with	examples of how to get help, both online and offline.
,	about the different factors that support their overall health and	happens that makes me feel sad, worried, uncomfortable or	uncomfortable or frightened: I can give	doing online (e.g. gaming; using an	interact with others online and understand how this will positively impact on how	I can explain that there are some people I communicate with online who may	examples of how to get help, both online and offline. I can explain the
,	about the different factors that support their overall health and wellbeing: -	happens that makes me feel sad, worried, uncomfortable or frightened, I can	uncomfortable or frightened: I can give examples of how they might get help.	doing online (e.g. gaming; using an avatar; social media) and why.	interact with others online and understand how this will positively impact on how others perceive	I can explain that there are some people I communicate with online who may want to do me or	examples of how to get help, both online and offline. I can explain the importance of
	about the different factors that support their overall health and wellbeing: - sensible amounts	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships	doing online (e.g. gaming; using an avatar; social media) and why. <u>Online</u>	interact with others online and understand how this will positively impact on how	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I	examples of how to get help, both online and offline. I can explain the importance of asking until I get
	about the different factors that support their overall health and wellbeing: -	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships I can give examples of	doing online (e.g. gaming; using an avatar; social media) and why. <u>Online</u> <u>Relationships</u>	interact with others online and understand how this will positively impact on how others perceive them.	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that	examples of how to get help, both online and offline. I can explain the importance of
	about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'.	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to speak to an adult I	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships I can give examples of how someone might	doing online (e.g. gaming; using an avatar; social media) and why. <u>Online</u> <u>Relationships</u> I can describe	interact with others online and understand how this will positively impact on how others perceive them. I can explain that	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/our	examples of how to get help, both online and offline. I can explain the importance of asking until I get the help I need.
	about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'. Explain the	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to speak to an adult I can trust and how	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships I can give examples of how someone might use technology to	doing online (e.g. gaming; using an avatar; social media) and why. Online Relationships I can describe ways people who	interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that	examples of how to get help, both online and offline. I can explain the importance of asking until I get the help I need. Online
	about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'. Explain the reasons for rules,	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to speak to an adult I	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships I can give examples of how someone might use technology to communicate with	doing online (e.g. gaming; using an avatar; social media) and why. Online Relationships I can describe ways people who have similar likes	interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can pretend to be	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/ our fault.	examples of how to get help, both online and offline. I can explain the importance of asking until I get the help I need. <u>Online</u> <u>Relationships</u>
	about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'. Explain the reasons for rules, know right from	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to speak to an adult I can trust and how they can help.	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships I can give examples of how someone might use technology to communicate with others they don't also	doing online (e.g. gaming; using an avatar; social media) and why. Online Relationships I can describe ways people who have similar likes and interests can	interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can pretend to be someone else,	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/ our fault. I can describe	examples of how to get help, both online and offline. I can explain the importance of asking until I get the help I need. <u>Online</u> <u>Relationships</u> I can explain how
	about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'. Explain the reasons for rules, know right from wrong and try to	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to speak to an adult I can trust and how they can help.	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships I can give examples of how someone might use technology to communicate with others they don't also know offline and	doing online (e.g. gaming; using an avatar; social media) and why. Online Relationships I can describe ways people who have similar likes and interests can get together	interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can pretend to be someone else, including my	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/ our fault. I can describe some of the ways	examples of how to get help, both online and offline. I can explain the importance of asking until I get the help I need. Online <u>Relationships</u> I can explain how sharing something
	about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'. Explain the reasons for rules, know right from wrong and try to behave	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to speak to an adult I can trust and how they can help. <u>Online</u> <u>Relationships</u>	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might	doing online (e.g. gaming; using an avatar; social media) and why. Online Relationships I can describe ways people who have similar likes and interests can	interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can pretend to be someone else, including my friends, and can	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/ our fault. I can describe some of the ways people may be	examples of how to get help, both online and offline. I can explain the importance of asking until I get the help I need. Online <u>Relationships</u> I can explain how sharing something online may have
	about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'. Explain the reasons for rules, know right from wrong and try to	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to speak to an adult I can trust and how they can help. Online <u>Relationships</u> I can give	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky, (e.g. email,	doing online (e.g. gaming; using an avatar; social media) and why. Online Relationships I can describe ways people who have similar likes and interests can get together online.	interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/ our fault. I can describe some of the ways people may be involved in online	examples of how to get help, both online and offline. I can explain the importance of asking until I get the help I need. Online <u>Relationships</u> I can explain how sharing something online may have ab impact either
	about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'. Explain the reasons for rules, know right from wrong and try to behave	happens that makes me feel sad, worried, uncomfortable or frightened, I can give examples of when and how to speak to an adult I can trust and how they can help. <u>Online</u> <u>Relationships</u>	uncomfortable or frightened: I can give examples of how they might get help. Online Relationships I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might	doing online (e.g. gaming; using an avatar; social media) and why. Online Relationships I can describe ways people who have similar likes and interests can get together	interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can pretend to be someone else, including my friends, and can	I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my/ our fault. I can describe some of the ways people may be	examples of how to get help, both online and offline. I can explain the importance of asking until I get the help I need. Online <u>Relationships</u> I can explain how sharing something online may have

1 3		•					Bringing
	Self-Image and	permission to do	pal in another	someone' online	<u>Online</u>	might collaborate	l can describe how
	<u>Identity</u>	something online	school/country).	and why this might	<u>Relationships</u>	constructively with	to be kind and
	l can recognise	and explain why		be different from	l can describe	others and make	show respect for
	online or offline,	this is important.	l can explain who l	knowing someone	strategies for safe	positive	others including
	that anyone can		should ask before	offline.	and fun	contributions. (e.g.	the importance of
	say 'no'- 'please	I can explain why it	sharing things about		experiences in a	gaming	respecting
	stop' – I'll tell' –'I'll	is important to be	myself or others online.	l can explain what	range of online	communities or	boundaries
	ask' to somebody	considerate and		is meant by	social	social media	regarding what is
	who makes them	kind to people	l can describe	'trusting someone	environments (e.g.	groups).	shared about them
	feel sad	online and to	different ways to ask	online', why this is	livestreaming,		online and how to
	uncomfortable,	respect their	for, give, or deny my	different from	gaming platforms).	I can explain how	support them if
	embarrassed or	choices.	permission online and	'liking someone		someone can get	others do not.
	upset.		can identify who can	online', and why it	Online Reputation	help if they are	
		I can explain why	help me if I am not	is important to be	I can describe how	having problems	I can describe how
	Online	things one person	sure.	careful about who	to find out	and identify when	things shared
	Relationships	finds funny or sad		to trust online	information about	to tell a trusted	privately online
	I can give	online may not	I can explain why I	including what	others by	adult.	can have
	examples of how I	always be seen in	have a right to say	information and	searching online.		unintended
	(might) use	the same way by	'no' or 'I will have to	content they are	0	Online Reputation	consequences for
	technology to	others.	ask someone'. I can	trusted with.	l can explain ways	I can describe	others e.g. screen
	communicate		explain who can help		that some of the	ways that	grabs.
	with people I	Online Reputation	me if I feel under	I can explain why	information about	information about	grabs.
	know.	I can recognise	pressure to agree to	someone may	anyone online	anyone online can	I can explain that
	KIIOW.	that information	something I am unsure	change their mind	could have been	be used by others	taking or sharing
	Online Bullying	can stay online	about or don't want to	about trusting	created, copied or	to make	inappropriate
	I can describe	and can be	do.	anyone with	shared by others.	judgements about	images of
	ways that some	copied.	d0.	something if they	shared by officis.	an individual and	someone (e.g.
	people can be	copieu.	I can identify who can	feel nervous,	Online Bullying	why these may be	embarrassing
	unkind online.	l can describe	help me if something	uncomfortable or	l can describe	incorrect.	images), even if
	origina origine.	what information I	happens online	worried.	ways people can	inconeci.	they say it is okay,
	I can offer	should not put	without my consent.	womea.	be bullied through	Online Pullving	may have an
		online without	wilhout my consent.	Loan ovelain how	a range of media	<u>Online Bullying</u> I can recognise	
	examples of how this can make	asking a trusted	Loop ovelein how it	I can explain how	(e.g. image, video,		impact for the
	others feel.		I can explain how it	someone's feelings		online bullying can be different to	sharer and others;
	others teel.	adult first.	may make others feel	can be hurt by	text, chat).		and who can help
			if I don not ask their	what is said or	La sua accalation de la	bullying in the	if someone is
	Managing Online	Online Bullying	permission or ignore	written online.	I can explain why	physical world and	worried about this.
	Information	I can describe how	their answers before		people need to	can describe some	
	I can talk about	to behave online	sharing something	I can explain the	think carefully	of those	Online Reputation
	how to use the	in ways that do not	about them online.	importance of	about how	differences.	I can explain the
	internet as a way	upset others and		giving and gaining	content they post		ways in which
	of finding	can give	I can explain why I	permission before	night affect others,	I can describe how	anyone can
	information online.	examples.	should always ask a	sharing things	their feelings and	what one person	develop a positive
			trusted adult before	online; how the	how it may affect	perceives as	online reputation.
		Managing Online	clicking 'yes', 'agree'	principle of sharing	how others feel	playful joking and	
	Health, Wellbeing	Information	or 'accept' online.	online is the same	about them (their	teasing (including	Online Bullying
	and Lifestyle	I can give simple		as sharing offline	reputation).	'banter') might be	I can describe how
	I can identify rules	examples of how	Online Reputation	e.g. sharing images		experienced by	to capture bullying
	that help keep us	to find information	I can describe how	and videos.	Managing Online	others as bullying.	content as
	safe and healthy	using digital	anyone's online		Information		evidence (e.g.
	inn and beyond	technologies e.g.		Online Reputation			screen-grab, URL,



Componing							
	the home when	search engines,	information could be	I can explain how	l can describe	I can explain how	profile) to share the best of
	using technology.	voice activated	seen by others.	to search for	some of the	anyone can get	with others who
		searching.		information about	methods used to	help if they are	can help me.
			I know who to talk to if	others online.	encourage people	being bullied	
	Privacy and	Health, Wellbeing	something has been		to buy things	online and identify	I can explain how
	Security	and Lifestyle	put online without	l can give	online (e.g.	when to tell a	someone would
	I can identify	I can explain rules	consent or if it is	examples of what	advertising offers;	trusted adult.	report online
	some simple	to keep me safe	incorrect.	anyone may or	in-app purchases,		bullying in different
	examples of my	when using		may not be willing	pop-ups) and can	I can identify a	contexts.
	personal	technology both in	Online Bullying	to share about	recognise some of	range of ways to	
	information (e.g.	and beyond the	I can explain what	themselves online. I	these when they	report concerns	Managing Online
	name, address,	home.	bullying is, how people	can explain the	appear online.	and access	Information
	birthday, age,		may bully others and	need to be careful		support both in	I can explain how
	location).	Health, Wellbeing	how bullying can	before sharing	I can explain why	school and at	search engines
	,	and Lifestyle	make someone feel.	anything personal.	lots of people	home about online	work and how
	l can describe	I can explain rules		,	sharing the same	bullying.	results are selected
	who would be	to keep myself	I can talk about how	I can explain who	opinions or beliefs	, 0	and ranked.
	trustworthy to	safe when using	anyone experiencing	someone can ask if	online do not	I can explain how	
	share this	technology both in	bullying can get help.	they are unsure	make those	to block abusive	I can describe how
	information with: I	and beyond the	, , , , , , , , , , , , , , , , , , , ,	about putting	opinions or beliefs	users.	some online
	can explain why	home.	Managing Online	something online.	true.		information can be
	they are trusted.		Information	<u> </u>		I can describe the	opinion and can
	-,	Privacy and	I can explain the	Online Bullying	I can explain that	helpline services	offer examples.
	Copyright and	Security	difference between	I can describe	technology can	which can help	
	Ownership	I can explain how	things that are	ways to behave	be designed to act	people	I can explain how
	I know that work I	passwords are	imaginary, 'made up'	towards other	like or impersonate	experiencing	and why some
	create belongs to	used to protect	or 'make believe' and	people online and	living things (e.g.	bullying, and how	people may
	me.	information,	things that are 'true' or	why this is	bots) and describe	to access them	present 'opinions'
		accounts and	'real'.	important.	what the benefits	(e.g. Childline or	as 'facts'; why the
		devices.			and the risks might	The Mix).	popularity of an
			I can explain why	I can give	be.	,	opinion or the
		l can recognise	some information I find	examples of how		Managing Online	personalities of
		more detailed	online may not be real	bullying behaviour	I can explain what	Information	those promoting it
		examples of	or true.	could appear	is meant by fake	I can explain what	does not
		information that is		online and how	news e.g. why	is meant by 'being	necessarily make it
		personal to	Privacy and Security	someone can get	some people will	sceptical'; I can	true, fair or perhaps
		someone (e.g.	I can explain how	support.	create stories or	give examples of	even legal.
		where someone	passwords can be		alter photographs	when and why it is	<u> </u>
		lives and goes to	used to protect	Managing Online	and put them	important to be	I can define the
		school, family	information, accounts	Information	online to pretend	'sceptical'.	terms 'influence',
		names).	and devices.	I can explain the	something is true		'manipulation',
				difference	when it isn't.	l can explain key	and 'persuasion'
		I can explain why it	I can explain and give	between 'belief',		concepts	and explain how
		is important to	examples of what is	an 'opinion' and a	Health, Wellbeing	including:	someone mmight
		always ask a	meant by 'private'	'fact' and can	and Lifestyle	information,	encounter these
		trusted adult	and 'keeping things	give examples of	I can explain how	reviews, facts,	online (e.g.
		before sharing any	private'.	how and where	using technology	opinions, belief,	advertising and
			1 ·		S		0
		personal		they might be	can be a	validity, reliability,	'ad targeting' and
		personal information online,	l can describe and	they might be shared online, e.g.	can be a distraction from	valiaity, reliability, evidence.	'ad targeting' and targeting for fake

Road Prim



	computing					
	belonging to	keeping personal	posts, news stories	both a positive	l can describe	ong out the best in
	myself or others.	information private	etc.	and a negative	ways of identifying	I can demonstrate
		(e.g. creating and		way.	when online	how to analyse
	Copyright and	protecting passwords).	I can explain that		content has been	and evaluate the
	<u>Ownership</u>		not all opinions	I can identify times	commercially	validity of 'facts'
	I understand that	Copyright and	shared may be	or situations when	sponsored or	and information
	work created by	<u>Ownership</u>	accepted as true	someone may	boosted, (e.g. by	and I can explain
	others does not	I can recognise that	or fair by others	need to limit the	commercial	why using these
	belong to me even	n content on the	(e.g. monsters	amount of time	companies or by	strategies are
	if I save a copy.	internet may belong	under the bed).	they use	vloggers, content	important.
		to other people.		technology e.g. l	creators,	
			Health, Wellbeing	can suggest	influencers).	I can describe the
		I can describe why	and Lifestyle	strategies to help		difference
		other people's work	I can explain why	with limiting this	I can explain what	between online
		belongs to them.	spending too	time.	is meant by the	misinformation and
			much time using		term 'stereotype',	disinformation.
			technology can	Privacy and	how 'stereotypes'	
			sometimes have a	Security	are amplified and	I can explain why
			negative impact	I can describe	reinforced online,	information that is
			on anyone; I can	strategies for	and why	on a large number
			give some	keeping personal	accepting	of sites may still be
			examples of both	information	'stereotypes' may	inaccurate or
			positive and	private,	influence how	untrue. I can assess
			negative activities where it is easy to	depending on context.	people think about others.	how this might happen (e.g. the
			spend a lot of time	Comexi.	omers.	sharing of
			engaged.	I can explain that	I can describe how	misinformation or
			engugeu.	internet use is	fake news may	disinformation).
			I can explain why	never fully private	affect someone's	alsinonnanony.
			some online	and is monitored,	emotions and	I can identify, flag
			activities have age	e.g. adult	behaviour, and	and report
			restrictions, why it is	supervision.	explain why this	inappropriate
			important to follow		may be harmful.	content.
l			them and know	I know what the	-,	
			who I can talk to if	digital age of	I can explain what	Health, Wellbeing
			others pressure me	consent is and the	it meant by a	and Lifestyle
			to watch or do	impact this has on	'hoax'. I can	I can describe
			something online	online services	explain why	common systems
			that makes me feel	asking for consent.	someone would	that regulate age-
			uncomfortable		need to think	related content
			(e.g. age restricted	Copyright and	carefully before	(e.g. PEGI, BBFC,
			gaming or	<u>Ownership</u>	they share.	parental warnings)
			websites).	l can give some		and describe their
				examples of	Health, Wellbeing	purpose.
			Privacy and	content which I	and Lifestyle	
			<u>Security</u>	must not use	l can describe	I recognise and
			I can describe	without permission	ways technology	can discuss the
			simple strategies	from the owner,	can affect health	pressures that
			for creating and	e.g. videos, music,	and well-being	technology can
				images.	both positively	place on someone



Computing			
	keeping passwords	(e.g. mindfulness	and how/when"the best in
	private.	apps) and	they could
		negatively.	manage this.
	l can give reasons		
	why someone	I can describe	Privacy and
	should only share	some strategies,	<u>Security</u>
	information with	tips or advice to	I can describe
	people they	promote health	effective ways
	choose to trust. I	and wellbeing with	people can
	can explain that if	regards to	manage
	they are not sure or	technology.	passwords (e.g.
	feel pressured then		storing them
	they should tell a	I can explain how	securely or saving
	trusted adult.	and why some	them in the
		apps and games	browser).
	Copyright and	may request or	
	Ownership	take payment for	I can explain what
	I can explain why	additional content	to do if a password
	copying someone	(e.g. in-app	is shared, lost or
	else's work from	purchases,	stolen.
	the internet	lootboxes) and	
	without permission	explain the	I can describe
	isn't fair and can	importance of	simple ways to
	explain what	seeking permission	increase privacy
	problems this might	from a trusted	on apps and
	cause.	adult before	services that
		purchasing.	provide privacy
			settings.
		Privacy and	
		Security	I can describe
		I can explain how	ways in which
		many free apps or	some online
		services may read	content targets
		and share private	people to gain
		information (e.g.	money or
		friends, contacts,	information
		likes, images,	illegally; I can
		videos, voice,	describe strategies
		messages,	to help me identify
		geolocation) with	such content (e.g.
		others.	scams, phishing).
		I can explain what	I know that online
		app permissions	services have terms
		are and can give	and conditions
		some examples.	that govern their
			Use.
		Copyright and	
		Ownership	



sempenng				Bring
			l can give	out the best in ev
			examples of	
			content that is	
			permitted to be	
			reused and know	
			how this content	
			can be found	
			online.	

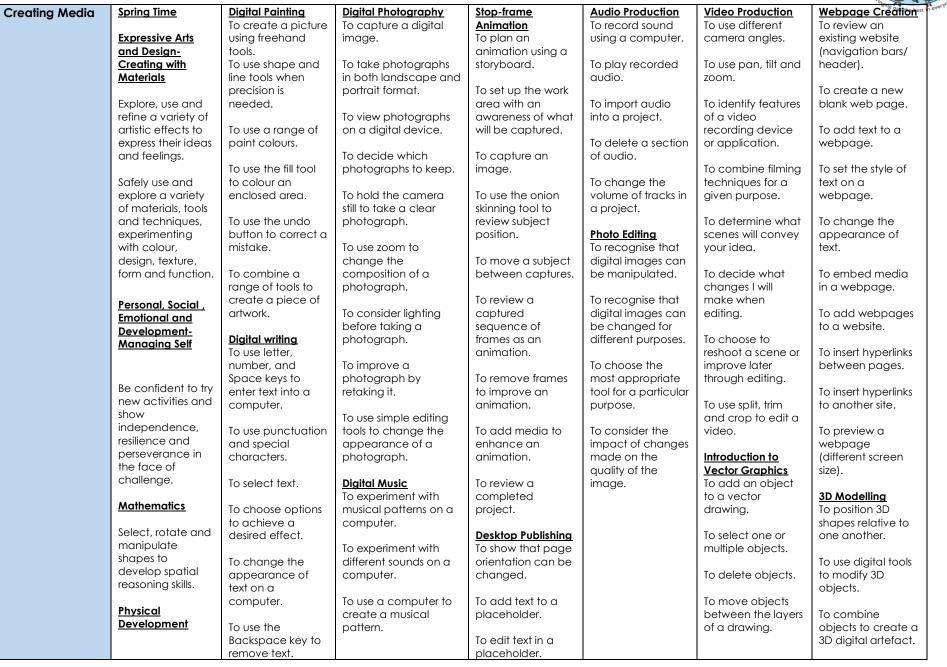


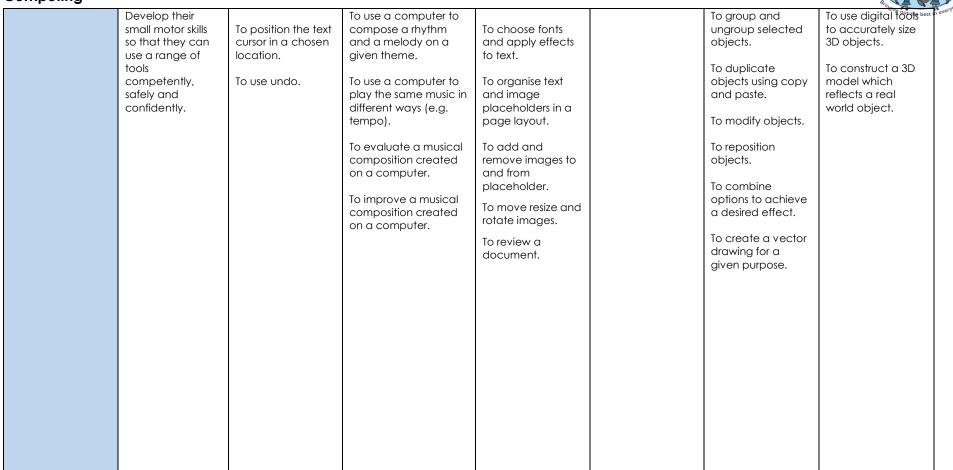
### Procedural Knowledge and Concepts

	EYFS	<u>Y1</u>	<u>Y2</u>	<u>Y3</u>	<u>Y4</u>	<u>Y5</u>	<u>Y6</u>
	<ul> <li>Exploring Technology</li> <li>Winter Warmers</li> <li>Spring Time</li> <li>People that Help us</li> <li>Transport</li> </ul>	<ul> <li>Technology around us</li> <li>Digital Painting</li> <li>Moving a robot</li> <li>Grouping data</li> <li>Digital writing Programming animations</li> </ul>	<ul> <li>Information technology around us</li> <li>Digital photography</li> <li>Robot algorithms</li> <li>Pictograms</li> <li>Digital Music</li> <li>Programming quizzes</li> </ul>	<ul> <li>Connecting Computers</li> <li>Stop Frame Animations</li> <li>Sequencing Sounds</li> <li>Branching Databases</li> <li>Desktop Publishing</li> <li>Events and Actions in programs</li> </ul>	<ul> <li>The Internet</li> <li>Audio Production</li> <li>Repetition in shapes</li> <li>Data logging</li> <li>Photo Editing</li> <li>Repetition in Games</li> </ul>	<ul> <li>Systems and Searching</li> <li>Video Production</li> <li>Selection in Physical Computing</li> <li>Flat File Databases</li> <li>Introduction to Vector Graphics</li> <li>Selection in Quizzes</li> </ul>	<ul> <li>Communication and Collaboration</li> <li>Webpage Creation</li> <li>Variables in games</li> <li>Introduction to spreadsheets</li> <li>3D- modelling</li> <li>Sensing movement</li> </ul>
Computing Systems and Networks	Understanding the         World         Explore how things work.         Physical	TechnologyAround UsTo choose a pieceof technology todo a job.To recognise that	Information Technology Around Us To describe some uses of computers. To identify information technology in school.	Connecting Computers To identify input and output devices. To explain that a	The InternetTo access theWorld Wide Web.To evaluate thereliability ofcontent and the	Systems and Searching To describe the input and output of a search engine.	Communication and Collaboration To outline methods of communicating and collaborating using the internet.
	Development Develop their small motor skills so that they can use a range of tools competently, safely and confidently.	some technology can be used in different ways. To identify the main parts of a computer. To use a mouse in different ways.	To identify information technology beyond school. To show how to use information technology safely.	computing system accepts an input and processes it to produce an output. To explain how a computer network can be used to share information.	consequences of unreliable content.	To demonstrate that different search terms produce different results. To evaluate the results of search terms.	To choose methods of internet communication and collaboration for given purposes. To evaluate different methods of communication and collaboration.
		To use a keyboard to type. To use the keyboard to edit text. To show how to		To explain the role of a switch, server, and wireless access point in a network. To identify network devices around			To decide what you should and should not share online.
		use technology safely.		me. To explain how networks can be connected to other networks.			

## Subject Progression

#### Computing







componing			1			1	
Programming	<u>Winter Warmers,</u>	Moving a robot/	Robot Algorithms/	Sequencing	Repetition in	Selection in	Variables in
	People who Help	Programming	Programming Quizzes	Sounds/ Events	Shapes/ Repetition	<u>Physical</u>	games/ Sensing
	<u>us, Transport</u>	animations	To choose a series of	and Actions in	<u>in Games</u>	Computing/	movement
		To enact a given	words that can be	<u>Programs</u>	To list an everyday	Selection in quizzes	To identify a
	<u>Mathematics</u>	word.	enacted as a	To build a	task as a set of	To create a	variable in an
			sequence.	sequence of	instructions	condition-	existing program.
	Solve real world	To predict the	To choose a series of	commands.	including	controlled loop.	
	mathematical	outcome of a	instructions that can		repetition.		To experiment with
	problems with	command on a		To combine		To use a condition	the value of an
	numbers up to 5.	device.	be run as a program.	commands in a	To use an	in an 'ifthen'	existing variable.
			To create a program.	program.	indefinite loop to	statement to start	
	Discuss routes and	To list which			produce a given	an action.	To choose a name
	locations, using	commands can	To trace a sequence	To order	outcome.		that identifies the
	words like 'in front	be used on a	to make a prediction.	commands in a		To use selection to	role of a variable
	of' and 'behind'.	given device.	To run a program on a	program.	To use a count-	switch the program	to make it easier
			device.		controlled loop to	flow in one of two	for humans to
	Notice and	To run a command	device.	To create a	produce a given	ways.	understand it.
	correct an error in	on a floor robot.	To debug a program	sequence of	outcome.		
	a repeating		that I have written.	commands to		To use a condition	To decide where in
	pattern.	To choose a		produce a given	To plan a program	in an	a program to set a
	punom.	command for a		outcome.	that includes	'ifthenelse'	variable.
	Begin to describe	given purpose.			appropriate loops	statement to	
	a sequence of				to produce a	produce given	To update a
	events, real or	To choose a series			given outcome.	outcomes.	variable with a user
		of words that can			Ū.		input.
	fictional, using words such as	be enacted as a			To recognise tools		
	'first', 'then.	program.			that enable more		To use an event in
	nisi, men.				than one process		a program to
	Continue	To choose a series			to be run at the		update a variable.
	Continue, copy	of commands that			same time		
	and create	can be run as a			(concurrency).		To use a variable in
	repeating	program.			(,,,.		a conditional
	patterns.	1			To create two or		statement to
	Notice and	To build a			more sequences		control the flow of
	correct an error in	sequence of			that run at the		a program.
	a repeating	commands in			same time.		a program
	pattern.	steps.			same inne.		To use the same
	panoni	510055.					variable in more
	Physical	To combine					than one location
	Development	commands in a					in a program.
		program.					in a program.
	Develop their	p.og.am.					
	small motor skills	To run a program					
	so that they can	on a device.					
	use a range of	UT à device.					
	tools						
	competently,						
	safely and						
	confidently.						
	coniideniiy.			I		1	



Data and Information	Winter Warmers         and People Who         Help Us         Mathematics         Count objects, actions and sounds.	Grouping dataTo identify someattributes of anobject.To collect simpledata.To show thatcollected datacan be counted.To describe theproperties of anobject.To choose anattribute to group	PictogramsTo recognise thatpeople, animals andobjects can bedescribed byattributes.To show I can enterdata onto acomputer.To use a computer toview data in differentformats.To use pictograms toanswer single-attribute	Desktop PublishingTo createquestions withyes/no answers.To choosequestions that willdivide objects intoevenly sizedsubgroups.To repeatedlycreate subgroupsof objects.To identify anobject using a	Data loggingTo use a digitaldevice to collectdataautomatically.To choose anappropriate timeframe whencollecting dataautomatically.To use a set oflogged data tofind information.To use a computer	Flat-file databases To choose different ways to view data. To choose which attribute and value to search by to answer a given question (operands). To ask questions that need more than one attribute to answer. To choose which	Introduction to spreadsheets To calculate data using a formula for each operation. To use functions to create new data. To use existing cells within a formula. To choose suitable ways to present spreadsheet data.
		objects by. To group objects to answer questions. To explain that objects can be grouped by similarities (attribute). To describe a group of objects (based on commonality).	questions. To use a computer to answer comparison questions (graphs, tables).	branching database. To retrieve information from different levels of the branching database.	program to sort data by one attribute. To export information in different formats.	attribute to sort data by to answer a given question. To choose multiple criteria to search data to answer a given question (AND and OR). To select an appropriate graph to visually compare data. To choose suitable ways to present	
Online Safety	Copyright and	Online	Managing Online	Managing Online	Online Bullying	information to other people. <u>Self-image and</u>	Self-image and
	Ownership I can name my work so that others know it belongs to me.	Relationships I can use the internet with adult support to communicate with people I know (e.g. video call apps or services)	Information I can use simple keywords in search engines. I can demonstrate how to navigate a simple webpage to	Information I can demonstrate how to use key phrases in search engines to gather accurate information online.	I can recognise when someone is upset, hurt or angry online. <u>Managing Online</u> <u>Information</u> I can analyse	Identity I can demonstrate how to make responsible choices about having an online identity, depending on	Identity I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups,
			get to information I need (e.g. home,	I can describe and demonstrate how	information to make a	context.	and explain why it is important to



Computing						
	Managing Online Information I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened. Copyright and Ownership I can save my work under a suitable title or name so that others know it belongs to me (e.g. filename, name on content).	forwards, back buttons; links, tabs, sections.	we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened.	judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others. I can describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites). Copyright and Ownership When searching on the internet, for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it.	Managing Online         Information         I can evaluate         digital content and         can explain how to         make choices         about what is         trustworthy e.g.         differentiating         between adverts         and search results.         Privacy and         Security         I can explain what         a strong password         is and demonstrate         how to create one.         Copyright and         Ownership         I can assess and         justify when it is         acceptable to use         the work of others.	challenge and "the best reject inappropriate representations online. <u>Managing Online Information</u> I can demonstrate how to analyse and evaluate the validity of 'facts' and information and I can explain why using these strategies are important. I can identify, flag and report inappropriate content. <u>Health. Wellbeing</u> and Lifestyle I can assess and action different strategies to limit the impact of technology on health (e.g. night shift mode, regular breaks, correct posture, sleep, diet and exercise). <u>Copyright and Ownership</u> I can demonstrate the use of search tools to find and access online content which can be reused by others. I can demonstrate
						how to make references to and



Computing					
				acknowledge out the best i	n every
				sources I have	
				used from the	
				internet.	