## Computing Progression

WEST HOVE INFANT SCHOOL A family of friends



	(Comp	ar R outing)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Nursery	Reception of Reception:	Duths and after to Variat	and 2 computing, students	Dualis and after	Stage 2: In Year 3 and 4		
			skills foster logical thinking, creativity, and an understanding of how computers follow instructions to complete tasks.		knowledge by exploring Scratch, text-based coding, and loops. They learn that objects in Scratch have attributes, recognize commands as blocks, and create programs by typing commands. They design and test algorithms, use count-controlled loops, and modify code to achieve specific outcomes. Through sequencing, repetition, and event-driven programming, they refine their ability to predict, debug, and improve programs. They make design choices, incorporate sound and movement, and evaluate the effectiveness of their code. By reusing and adapting existing code snippets, they develop logical thinking and problem-solving skills in coding projects.		programming skills, including working with microcontrollers, variables, loops, and selection statements. They learn to create circuits, program LED and control multiple outputs using loops. They explore variables as placeholders for data, modifying them through conditions and user input. By implementing selection statements (ifthenelse), they control program flow and create interactive projects. They design, test, debug, and refine programs, considering real-world applications and improving efficiency. Through experimentation with different inputs, debugging strategies, and structured program design, they enhance their ability to create, evaluate, and shar sophisticated coding projects.	
Programming A and	Copy the actions of others to operate simple equipment and toys	Help adults operate equipment around the school, independently operating simple equipment	outcome - I can predict the outcome of a command on a device	sequence - I can follow instructions	-I can explain that objects in Scratch have attributes (linked to) - I can identify the objects in a Scratch project (sprites, backdrops) - I can recognise that commands in Scratch are represented as blocks	-I can create a code snippet for a given purpose - I can explain the effect of changing a value of a command - I can program a computer by typing commands	-I can create a simple circuit and connect it to a microcontroller - I can explain what an infinite loop does - I can program a microcontroller to make an LED switch on	-I can explain that the way a variable changes can be defined - I can identify examples of information that is variable - I can identify that variables can hold numbers or letters
В	Explore simple software to make things happen	Use simple software to make things happen	- I can recall words that can be acted out	-I can show the difference in outcomes between two sequences that consist of the same commands - I can use an algorithm to program a sequence on a floor robot - I can use the same instructions to create different algorithms	-I can choose a word which describes an on-screen action for my plan - I can create a program following a design - I can identify that each sprite is controlled by the commands I choose	-I can test my algorithm in a text- based language - I can use a template to create a design for my program - I can write an algorithm to produce a given outcome	-I can connect more than one output component to a microcontroller - I can design sequences that use count-controlled loops - I can use a count-controlled loop to control outputs	-I can explain that a variable has a name and a value - I can identify a program variable as a placeholder in memory for a single value - I can recognise that the value of a variable can be changed
	Use buttons on electronic toys and be able to state what the buttons do.	Press buttons on a floor robot or screen robot and talk about the movements	- I can predict the outcome of a sequence involving forwards and backwards commands - I can start a sequence from the same place	- I can predict the outcome of a sequence	project will respond exactly to the code - I can start a program in different ways	include repetition as part of a sequence, eg brushing teeth, dance moves - I can identify patterns in a sequence - I can use a count-controlled loop to produce a given outcome		-I can decide where in a program to change a variable - I can make use of an event in a program to set a variable - I can recognise that the value of a variable can be used by a program
	Identify some differences between a variety of toys.	Explore options and make choices with toys, software and websites	- I can experiment with turn		-I can combine sound commands - I can explain what a sequence is - I can order notes into a sequence	-I can choose which values to change in a loop - I can identify the effect of changing the number of times a task is repeated - I can predict the outcome of a program containing a count-controlled loop	- I can identify a condition and an action in my project - I can use selection (an 'ifthen'	-I can choose the artwork for my project - I can create algorithms for my project - I can explain my design choices
			- I can debug my program - I can explain what my program should do	-I can create an algorithm to meet my goal - I can explain what my algorithm should achieve - I can use my algorithm to create a program	-I can build a sequence of commands - I can decide the actions for each sprite in a program - I can make design choices for my artwork	-I can explain that a computer can repeatedly call a procedure - I can identify 'chunks' of actions in the real world - I can use a procedure in a program	-I can create a detailed drawing of my project - I can describe what my project will do - I can identify a real-world example of a condition starting an action	-I can choose a name that identifies the role of a variable - I can create the artwork for my project - I can test the code that I have written

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			-I can identify several possible solutions	-I can plan algorithms for different parts of a task	-I can identify and name the objects I will need for a project	-I can design a program that includes count-controlled loops	-I can test and debug my project - I can use selection to produce an	-I can identify ways that my game could be improved
			- I can plan two programs	- I can put together the	- I can implement my algorithm as code	- I can develop my program by debugging it	intended outcome - I can write an algorithm that	- I can share my game with others - I can use variables to extend my
			- I can use two different	different parts of my program	- I can relate a task description to a	- I can make use of my design to write	9	game
			programs to get to the same	- I can test and debug each	design	a program		
			Ť	part of the program	Land the same high have to see for	land list and a section of	Land the off and the original to	haranda a la
			-I can compare different	-I can identify that a program	-I can choose which keys to use for actions and explain my choices	-I can list an everyday task as a set of instructions including repetition	<ul><li>-I can identify conditions in a program</li><li>-I can modify a condition in a program</li></ul>	
			programming tools - I can find which commands	needs to be started - I can identify the start of a	- I can explain the relationship	- I can modify a snippet of code to	- I can recall how conditions are used	- I can test my program on an
				sequence	between an event and an action - I can identify a way to improve a	create a given outcome - I can predict the outcome of a	in selection	emulator - I can transfer my program to a
			- I can use commands to move		program	snippet of code		controllable device
				program				
			-I can run my program	-I can change the outcome of a		-I can choose when to use a count-	-I can create a program with different	-I can determine the flow of a
			- I can use a Start block in a	sequence of commands	project - I can choose a suitable size for a	controlled and an infinite loop - I can modify loops to produce a giver	outcomes using selection	program using selection - I can identify examples of conditions
			program	- I can match two sequences	character in a maze	outcome	outcomes in an 'if then else'	in the real world
				with the same outcome	- I can program movement	- I can recognise that some	statement	- I can use a variable in an if, then, else
			block by joining them together	I		programming languages enable more than one process to be run at once	- I can use selection in an infinite loop to check a condition	program
			-I can change the value	a sequence of commands -I can build the sequences of	-I can choose blocks to set up my	-I can choose which action will be	-I can design the flow of a program	-I can experiment with different
			_	blocks I need	program	repeated for each object	which contains 'if then else'	physical inputs
			numbers	- I can decide which blocks to	- I can consider the real world when making design choices	- I can evaluate the effectiveness of the repeated sequences used in my	- I can explain that program flow can branch according to a condition	<ul> <li>I can explain that checking a variable doesn't change its value</li> </ul>
			- I can say what happens when		- I can use a programming extension	program	- I can show that a condition can direct	
			I change a value	- I can work out the actions of		- I can explain what the outcome of	program flow in one of two ways	variable
				a sprite in an algorithm		the repeated action should be		
			•	-I can choose backgrounds for	-I can build more sequences of commands to make my design work	-I can explain the effect of my changes - I can identify which parts of a loop	-I can identify the outcome of user input in an algorithm	-I can explain the importance of the order of conditions in else, if
			'	the design	- I can choose suitable keys to turn on	can be changed	- I can outline a given task	statements
			- I can delete a sprite - I can show that a project can	- I can choose characters for	additional features - I can identify additional features	- I can re-use existing code snippets or	_	- I can modify a program to achieve a different outcome
			include more than one sprite	- I can create a program based	•	new sprites	my project	- I can use an operand (e.g. <>=) in an
			•	on the new design				if, then statement
			-I can choose appropriate	-I can build sequences of	-I can match a piece of code to an	-I can develop my own design explaining what my project will do	-I can implement my algorithm to create the first section of my program	-I can decide what variables to include
			· · · · · · · · · · · · · · · · · · ·	blocks to match my design	outcome - I can modify a program using a	- I can evaluate the use of repetition in	- I can share my program with others	in a project - I can design the algorithm for my
			- I can create an algorithm for	I	design	a project	- I can test my program	project
			each sprite - I can decide how each sprite	my own design	- I can test a program against a given design	- I can select key parts of a given project to use in my own design		- I can design the program flow for my project
			will move	- I can create an algorithm	ucsign	project to use in my own design		project
			-I can add programming blocks	-I can compare my project to			-I can extend my program further	-I can create a program based on my
			based on my algorithm	my design			- I can identify the setup code I need	design
			- I can test the programs I	- I can debug my program			in my program - I can identify ways the program	- I can test my program against my design
			have created	- I can improve my project by			could be improved	- I can use a range of approaches to
			•	adding features				find and fix bugs
	B 14/1 - 1 - 2 - 1	<u> </u>	my design			1	microcontrollor LICD same	nonente connection infinite
	Press, What happens? Show	Choice, program, buttons,	Bee-bot, forwards, backwards, turn,	instruction, sequence, clear,	- Scratch, programming, blocks			ponents, connection, infinite motor, repetition, count
Vocabulary	me.	up, down, forward, backwards, turn.	clear, go,	unambiguous, algorithm,	costume, stage, backdrop, mot to, glide, sequence, event, task		controlled loop, Crumble co	ontroller, switch, LED, Sparkle,
		- Sackwaras, turri	commands,	program, order, prediction,	note, chord, algorithm, bug, de		crocodile clips, connect	, battery box, program,
			instructions,	artwork, design, route, mat,		<b>J</b> ,	power, cell, buzzer	lection, action, debug, circuit,
			directions, left,	debugging, decomposition	motion, event, sprite, algorithn	_		
			right, route, plan,		block, pen up, set up, pen, desi			false, count-controlled loop,
			algorithm, program		setup, code, test, debug, action	ns.	debug question answer to	tement, algorithm, program, ask, design, input, implement,
			ScratchJr,		Logo (programming environme	nt) program turtle	test, run, setup, operator	اعادة محاوان البعد الالمادالا
			command, sprite,	sequence, command,	commands, code snippet, algor	–		
			compare,	program, run, start,	repeat, repetition, count-control			value, set, design, event, vork, program, project, code,
			programming, area,	outcome, predict, blocks,	decompose, procedure.	, , , ,,	test, debug, improve, evalu	ate, share, assign, declare
			block, background,	design, actions, sprite,				
			delete, reset, algorithm, predict,	project, modify, change,		plocks, code, loop, repeat, value	Micro:bit, MakeCode, inpu	ıt, process, output, flashing dition, if then else, variable
			effect, change,	algorithm, build, match,	infinite loop, count-controlled I		random, sensing accele	erometer, value, compass
			value, instructions,	compare, debug, features,	forever, animate, event block, o		direction, navigation, de	sign, task, algorithm, step
			design	evaluate, decomposition,	algorithm, debug, refine, evalu	ale	counter, plan, create, code	
				code.				
				coue.				
Creating Media	By the end o	f Reception:	By the end of KS1: By the en	nd of KS1, students develop	By the end of Lower KS2: By th	e end of Lower KS2, students	By the end of Upper Key Stage	2: By the end of Upper KS2,
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There are Constituting FLC		edit, and format text using basic word processing tools. In photography, they capture and evaluate images, considering lighting, composition, and perspective. Through these activities, students build creativity, digital		structured documents like magazine covers. They record and edit audio, plan engaging podcasts, and arrange sound for specific effects. In animation, they create flipbooks and stop-frame sequences, breaking down		hyperlinks to navigate between them. They learn abording the copyright, fair use, and ethical content sharing. In desthey manipulate vector and 3D objects, using layers resizing, rotation, and alignment tools to create detail	
There are Computing ELG however the computing we children in other areas of the access an increasi	teach in school is supporting e EYFS and providing skills to						
Mark make with a touch controlled device.	Use mouse control and simple software to create pictures	- I can use the paint tools to draw a picture	- I can identify simple differences in pieces of music - I can say what I do and don't like about a piece of music	- I can identify the advantages and disadvantages of using	who records the sound can say who is allowed to use it - I can identify the input and output devices used to record	- I can explain that video is a visual media format - I can identify features of	-I can discuss the different types of media used on websites - I can explore a website - I know that websites are written in HTML
Explore images both physical and digital and identify if they are interactive or not. E.g. when you press on the balloon it starts the makes a noise.	Recognise text, images and sound when using ICT	-I can make marks with the square and line tools - I can use the shape and line tools effectively - I can use the shape and line tools to recreate the work of an artist	- I can explain that music is created and played by humans - I can play an instrument following a rhythm pattern	_	- I can inspect the soundwave view to know where to trim my recording - I can re-record my voice to	different camera angles - I can identify and find	-I can draw a web page layout that suits my purpose - I can recognise the common features of a web page - I can suggest media to include on my page
Identify devices that allow you to take pictures or capture videos.	Use a camera or sound recorder to collect photos or sound	- I can create a picture in the style of an artist - I can make appropriate	- I can relate an idea to a piece of music - I can use a computer to experiment with pitch	- I can define the term 'page orientation' - I can recognise placeholders and say why they are	be combined to make a podcast more engaging - I can plan appropriate content for a podcast	-I can capture video using a range of filming techniques - I can review how effective my video is - I can suggest filming techniques for a given purpose	-I can describe what is meant by the term 'fair use' - I can find copyright-free images - I can say why I should use copyright-free images
Move physical objects around in a small world scenario and describe to others the purpose of the movement. E.g. He's eating his dinner.	Use a mouse to rearrange objects and pictures on a screen	recreate the work of an artist - I can say which tools were helpful and why	-I can explain how my music can be played in different ways - I can identify that music is a sequence of notes - I can refine my musical	-I can choose the best locations for my content - I can make changes to	-I can improve my voice recordings - I can record content following my plan - I can review the quality of my	- I can decide which filming techniques I will use - I can outline the scenes of my video	-I can add content to my own web page - I can evaluate what my web page looks like on different devices and suggest/make edits - I can preview what my web page looks like
Understand that text on devices or toys is there to aid understanding. Identify text and images as separate things. E.g. that's my name and that is a dog.	Begin to use a keyboard to build words.	<ul><li>I can make dots of colour on the page</li><li>I can use dots of colour to create a picture in the style of</li></ul>	to my rhythm - I can create a rhythm which represents an animal I've chosen	- I can identify different layouts	to create the effect I want I can explain the difference between saving a project and exporting an audio file I can open my project to continue working on it	-I can explain how to improve a video by reshooting and editing - I can select the correct tools to make edits to my video - I can store, retrieve, and	-I can describe why navigation paths are useful - I can explain what a

Enjoy exploring age appropriate applications.	Develop an interest in ICT by using age appropriate websites or programs	-I can explain that pictures can be made in lots of different ways - I can say whether I prefer painting using a computer or using paper - I can spot the differences between painting on a computer and on paper	my work - I can listen to music and describe how it makes me feel - I can review my work	desktop publishing to work created by hand - I can identify the uses of desktop publishing in the real world - I can say why desktop publishing might be helpful	to an audio recording	- I can recognise that my choices when making a video will impact on the quality of the final outcome	- I can explain the implication of linking to content owned by others
Know that devices have different things on them. e.g. Mummy has that game on her phone but Daddy doesn't.	Understand that work can be saved for later use.	-I can identify and find keys on a keyboard - I can open a word processor - I can recognise keys on a keyboard	capture a digital photo - I can recognise what devices can be used to take photographs - I can talk about how to take a photograph	- I can draw a sequence of pictures - I can explain how an	-I can explain why I might crop an image - I can improve an image by rotating it - I can use photo editing software to crop an image		-I can add 3D shapes to a project - I can move 3D shapes relative to one another - I can view 3D shapes from different perspectives
Be able to tell if a device is on or off.	Know the computer requires a password. Know not to press the power button to turn off a computer.	-I can enter text into a computer - I can use backspace to remove text - I can use letter, number, and space keys	- I can take photos in both	- I can explain why little changes are needed for each frame - I can predict what an	-I can experiment with different colour effects - I can explain that different colour effects make you think and feel different things - I can explain why I chose certain colour effects	-I can explain that each element added to a vector drawing is an object - I can identify the shapes used to make a vector drawing - I can move, resize, and rotate objects I have duplicated	
		-I can explain what the keys that I have learnt about already do - I can identify the toolbar and use bold, italic, and underline - I can type capital letters	-I can discuss how to take a good photograph - I can identify what is wrong	settings, characters and events - I can create a storyboard - I can describe an animation that is achievable on screen	- I can identify how a photo edit can be improved	-I can explain how alignment grids and resize handles can be used to improve consistency - I can modify objects to create a new image - I can use the zoom tool to help me add detail to my drawings	- I can rotate objects in three
		-I can change the font - I can select all of the text by clicking and dragging - I can select a word by double-clicking	-I can experiment with different light sources - I can explain why a picture may be unclear - I can explore the effect that light has on a photo	- I can review a sequence of frames to check my work - I can use onion skinning to help me make small changes	might be edited - I can use a range of tools to	layers in a vector drawing - I can identify that each	-I can accurately size 3D objects - I can combine a number of 3D objects - I can show that placeholders can create holes in 3D objects
		-I can decide if my changes have improved my writing - I can say what tool I used to change the text	-I can explain my choices - I can recognise that images can be changed - I can use a tool to achieve a				

- I can use 'undo' to remove

between typing and writing

- I can make changes to text photo

changes

on a computer

or writing

desired effect

photography skills to capture a

- I can identify which photos

- I can recognise which photos have been changed

-I can explain the differences -I can apply a range of

- I can say why I prefer typing are real and which have been

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	Game, picture, writing, button, press	Move, screen, click, drag, mouse, button, tools	paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour,	music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create, emotion,	text, images, advantages, of font, style, landscape, port template, layout, content, paste, purpose, benefits.  animation, flip book, stopf		vector, drawing tools, object drawing, move, resize, color duplicate/copy, zoom, selectory, copy, paste, group, u	our, rotate, ct, align, modify, layers,
Vocabulary			brush style, brush size, pictures, painting, computers	beat, instrument, open, edit.	image, photograph, setting skinning, consistency, evaluimport, transition.	g, character, events, onion uation, delete, media,	reflection	angroup, reuse,
			word processor, keyboard,	device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose,	output device, sound, pode import, record, playback, s MP3, evaluate, feedback. image, edit, digital, crop, readjustments, effects, colou	otate, undo, save, export, otate, undo, save, urs, hue, saturation, sepia,	video, audio, camera, talkir up, video camera, microphe long shot, moving subject, low, normal), static, zoom, filming, review, import, spl	one, lens, mid-range, side by side, angle (high, pan, tilt, storyboard, it, trim, clip, edit,
			keys, letters, type, numbers, space, backspace, text cursor, capital letters,	light sources, flash, focus, background, editing, filter, format, framing, lighting,		clone, select, combine, made opy, paste, alter, background, ont.	reshoot, delete, reorder, ex	
			toolbar, bold, italic, underline, mouse, select, font, undo, redo, format, compare, typing, writing.				Markup Language (HTML), media, purpose, copyright, preview, evaluate, device, of breadcrumb trail, navigation evaluate, implication, exten	logo, layout, header, fair use, home page, Google Sites, on, hyperlink, subpage,
							TinkerCAD, 2D, 3D, shapes, perspective, view, handles, recolour, rotate, duplicate, cuboid, sphere, cone, prism hollow, choose, combine, comodify.	resize, lift, lower, group, cylinder, cube, n, pyramid, placeholder,
	There are Computing ELG however the computing we children in other areas of th access an increas	of Reception: is or statements in the EYFS teach in school is supporting te EYFS and providing skills to ingly digital world.	develop fundamental comp handling and categorisation. I group objects based on their a charts to organise information data, represent it in pictogram quantities, similarities, and d activities, they will enter an learning how to present info Additionally, they will explore begin to understand why son These skills will help them build to collect, organise, and inte	They will learn to describe and ttributes, using labels and tally. They will record and compare is, and answer questions about lifferences. Through practical id view data on a computer, rmation in different formats. It is safe information sharing and ine data should not be shared. It confidence in using technology rpret information effectively.	Stage 2, children will further particularly in data collection, will learn to group objects bas branching databases, and us information. They will explore data, recognising how data cused to answer specific quexperience, they will work w collect and interpret real-time an understanding of how to sensure accurate classificat independently and collaboratic solving skills and an awareness data h	develop their computing skills, organisation, and analysis. They ed on attributes, create and test se yes/no questions to classify different ways to view and sort can be gathered over time and uestions. Through hands-on ith data loggers and sensors to data. Additionally, they will gain structure questions carefully to cion and analysis. By working ively, they will develop problemss of real-world applications for handling.	2, children will build advanced organising, sorting, and analys and spreadsheets. They we databases, define fields and reto refine searches and answer understanding of structuring formulas, and using calculative effectively. Through practical benefits of using computer selecting appropriate form Additionally, they will lead information, and use logical of to enhance data selection. By a able to collect, organise, meaningful conclusions and present services.	will learn to navigate flat-file ecords, and use multiple criteria questions. They will develop an and formatting data, applying ons to manipulate information activities, they will explore the s to create charts and tables, nats to present data clearly. In to refine searches, filter perators such as 'AND' and 'OR' applying these skills, they will be and interpret data to draw resent their findings confidently.
Data and Information	Look at pictures and describe what they show.	Collect information as photos or sound files	<ul><li>I can identify the label for a group of objects</li><li>I can match objects to groups</li></ul>	-I can compare totals in a tally chart - I can record data in a tally chart - I can represent a tally count as a total	objects	-I can choose a data set to answer a given question - I can identify data that can be gathered over time - I can suggest questions that can be answered using a given data set	-I can create a database using cards - I can explain how information can be recorded - I can order, sort, and group my data cards	-I can collect data - I can enter data into a spreadsheet - I can suggest how to structure my data
	Sort pictures using a simple difference e.g. food not food.	Use a simple pictogram or set of photos to count and organise information	- I can group objects	-I can enter data onto a computer - I can use a computer to view data in a different format - I can use pictograms to	-I can arrange objects into a tree structure - I can create a group of objects within an existing group	-I can explain what data can be collected using sensors - I can identify that data from sensors can be recorded - I can use data from a sensor	, ,	-I can apply an appropriate format to a cell - I can choose an appropriate format for a cell - I can explain what an item of

				answer simple questions about objects	- I can select an attribute to separate objects into groups		- I can navigate a flat-file database to compare different views of information	data is
	Put similar things in the same group. Say what is similar.	Identify and Count how many things meet a criteria. E.g. how many little blue bears do we have?	-I can describe an object - I can describe a property of an object - I can find objects with similar properties	-I can explain what the pictogram shows - I can organise data in a tally chart - I can use a tally chart to create a pictogram	-I can group objects using my own yes/no questions - I can select objects to arrange in a branching database - I can test my branching database to see if it works	<ul> <li>I can recognise that a data logger collects data at given points</li> <li>I can talk about the data that</li> </ul>	questions - I can explain that data can be grouped using chosen values	calculations
	Interpret simple data from a picture. E.g. They have brown hair because I can see their photo.	Look at and begin to interpret data that others have shared.	share a property	-I can answer 'more than'/'less than' and 'most/least' questions about an attribute - I can create a pictogram to arrange objects by an attribute - I can tally objects using a common attribute	-I can compare two branching database structures - I can create yes/no questions using given attributes	-I can explain that there are different ways to view data - I can sort data to find information - I can view data at different levels of detail	-I can choose multiple criteria to answer a given question - I can choose which field and	-I can apply a formula to multiple cells by duplicating it - I can calculate data using different operations - I can create a formula which includes a range of cells
	I know that pictures can be used to represent information. E.g. A bear on the cover of the book tells me the book is about bears.	I can identify a graph or pictogram when looking in a book or online.	- I can describe groups of objects	-I can choose a suitable attribute to compare people - I can collect the data I need - I can create a pictogram and draw conclusions from it	of a branching database - I can create questions that	- I can propose a question that can be answered using logged data - I can use a data logger to	using a computer to create charts - I can refine a chart by selecting a particular filter - I can select an appropriate	-I can apply a formula to calculate the data I need to answer questions - I can explain why data should be organised - I can use a spreadsheet to answer questions
			- I can decide how to group objects to answer a question - I can record and share what I have found	shared - I can share what I have found	database that reflects my plan - I can suggest real-world uses for branching databases - I can work with a partner to test my identification tool	- I can explain the benefits of using a data logger - I can interpret data that has been collected using a data	- I can present my findings to a	-I can produce a chart - I can suggest when to use a table or chart - I can use a chart to show the answer to questions
Vocabulary	Pictures, sort	Photo, information, shared	object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same	more than, less than, most, least, common, popular, organise, data, object, tally chart, votes, total, pictogram, enter, data, compare, objects, count, explain, attribute, group, same, different, conclusion, block diagram, sharing	I databasa abiaata agual	device, sensor, logger, logging, data point, interval, analyse, dataset, import, export,	database, data, information, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation.	data, collecting, table, structure, spreadsheet, cell, cell reference, data item, format, formula, calculation, spreadsheet, input, output, operation, range, duplicate, sigma, propose, question, data set, organised, chart, evaluate, results, sum, comparison, software, tools.
	statements in the EYFS however the computing we teach in school is supporting children in other areas of the EYFS and providing skills to access an increasingly digital world.		develop an understanding of information technology (IT) and		within networks to share info structure of the internet, re networks that provides various and online content creation. The will classify input and output systems, and understand he networks. Additionally, they we safety, learning that not all in Web is accurate or reliable importance of content owner	lop a deeper understanding of orks, and the internet. They will of inputs, process information, as how these devices connect rmation. They will explore the cognising it as a network of its services, including websites through hands-on activities, they devices, design simple digital ow messages travel through ill develop awareness of online formation on the World Wide. They will also consider the ship and responsible sharing, o protect digital content. These	By the end of Year 6, children: 2, children will have a strong systems, networks, and online that computer systems consoutputs and that they communicated and structured date explore how data is sent over the search engines organise and in they will compare different searches, and understand the months of the consolidation.  Children will also develop and enables collaboration, recognises of working together online.	By the end of Upper Key Stage g understanding of computer communication. They will learn sist of inputs, processes, and nicate with other devices using a transfer methods. They will he internet in packets and how ank information. Additionally, a search engines, refine web role of web crawlers in indexing tent.  Awareness of how the internet nising both public and private ne. They will explore different oosing the most appropriate for

	Τ		1			nancibly	different numana columbia	understanding that action
					and res	ponsibly.	communication may not alway will learn how search results engines generate revenue, searches. Through this, they enabling them to navigate the	understanding that online ys be private. Furthermore, they can be influenced, how search and the limitations of online will build critical thinking skills, digital world safely, responsibly, fectively.
	Recognise some of the	Recognise purposes for	-I can describe some uses of	I can describe some uses o	f-I can explain that digital	-I can demonstrate how	-I can describe that a compute	r-I can describe how computers
	outcomes of technology in the home and Nursery e.g. The camera can take pictures. That toy plays music.	using technology in school and at home	computers - I can identify examples of computers - I can identify that a computer is a part of IT	computers  - I can identify examples o computers  - I can identify that a computer is a part of IT	devices accept inputs	information is shared across the internet - I can describe the internet as a network of networks	system features inputs, processes, and outputs	use addresses to access websites - I can explain that internet devices have addresses - I can recognise that data is
Computing Systems and Networks	Understand that some objects belong to different people and that you may need their permission to use them.	Understand that things they create belong to them and can be shared with others using technology	-I can identify examples of IT - I can identify that some IT can be used in more than one way - I can sort school IT by what it's used for	-I can identify examples of IT - I can identify that some IT can be used in more than one way - I can sort school IT by what it's used for	-I can classify input and output devices - I can describe a simple process - I can design a digital device	devices and how they connect - I can explain that the internet is used to provide many services - I can recognise that the	-I can explain the benefits of a given computer system - I can identify tasks that are managed by computer systems - I can identify the human elements of a computer system	transferred over the internet is in packets
	Recognise that interactive toys can help us play and learn.	Recognise that they can use the Internet to play and learn	-I can find examples of information technology - I can sort IT by where it is found - I can talk about uses of information technology	-I can find examples of information technology - I can sort IT by where it is found - I can talk about uses of information technology	-I can explain how I use digital devices for different activities - I can recognise similarities between using digital devices and non-digital tools - I can suggest differences between using digital devices and non-digital tools	- I can describe where	-I can compare results from different search engines - I can make use of a web search to find specific information - I can refine my web search	-I can explain that the internet allows different media to be shared - I can recognise how to access shared files stored online - I can send information over the internet in different ways
			-I can demonstrate how IT devices work together - I can recognise common types of technology - I can say why we use IT	-I can demonstrate how IT devices work together - I can recognise common types of technology - I can say why we use IT	-I can discuss why we need a network switch - I can explain how messages are passed through multiple connections - I can recognise different connections	-I can explain that internet services can be used to create content online - I can explain what media can be found on websites - I can recognise that I can add content to the WWW	- I can recognise the role of web crawlers in creating an index - I can relate a search term to the search engine's index	-I can explain how the internet enables effective collaboration - I can identify different ways of working together online - I can recognise that working together on the internet can be public or private
			-I can list different uses of information technology - I can say how rules can help keep me safe - I can talk about different rules for using IT	-I can list different uses of information technology - I can say how rules can help keep me safe - I can talk about different rules for using IT	-I can demonstrate how information can be passed between devices - I can explain the role of a switch, server, and wireless access point in a network - I can recognise that a computer network is made up of a number of devices	-I can explain that there are rules to protect content - I can explain that websites and their content are created by people - I can suggest who owns the content on websites	-I can explain that a search engine follows rules to rank results - I can give examples of criteria used by search engines to rank results - I can order a list by rank	-I can choose methods of communication to suit particular purposes - I can explain the different ways in which people communicate - I can identify that there are a variety of ways to communicate over the internet

			<ul> <li>I can identify the choices that</li> <li>I make when using IT</li> <li>I can use IT for different</li> </ul>	- I can identify the choices that I make when using IT - I can use IT for different types of activities	network are connected together - I can identify networked devices around me	-I can explain that not everything on the World Wide Web is true - I can explain why I need to think carefully before I share or reshare content - I can explain why some information I find online may not be honest, accurate, or legal	influenced - I can explain how search	-I can compare different methods of communicating on the internet - I can decide when I should and should not share information online - I can explain that communication on the internet may not be private
Vocabulary	learn	Internet, computer, online,	technology, computer, mouse,	=: : :	digital device, input, process, digital, connection, network, s		system, connection, digital, inp search, search engine, refine, ir	
			trackpad, keyboard, screen, double-click, typing.	computer, barcode, scanner/scan	point, cables, sockets, interne switch, server, wireless access page, web address, routing, w content, links, files, use, dowr	t, network, router, security, s point (WAP), website, web reb browser, World Wide Web,	algorithm, search engine optime content creator, selection, rank communication, protocol, data Domain Name Server (DNS), pa chat, explore, slide deck, reuse, public, private, one-way, two-w	isation (SEO), web crawler, king. , address, Internet Protocol (IP), icket, header, data payload, , remix, collaboration, internet,
	will begin to develop an aw responsible technology use they have the right to say 'r' 'I'll ask' if someone makes the embarrassed, or upset. Tinternet can be used for conthey might use technology.  Children will also learn the ito stay safe and healthy whe in school, including managiable to identify simple exam such as their name, address them understand the need fix will recognise that the work introducing the concept of digital content. These ear support their understand	ne end of Reception, children rareness of online safety and e. They will understand that no,' 'please stop,' 'l'll tell,' or hem feel sad, uncomfortable, hey will explore ways the nmunication and discuss how to talk to people they know.  Importance of following rules en using devices at home and ang screen time. They will be uples of personal information, s, birthday, and age, helping for privacy. Additionally, they they create belongs to them, fownership and respect for rly digital literacy skills will ing of safe and responsible e as they grow.	have developed essential information and staying safe to use search engines, reconline is real, and navigatinformation. They will also learn how to protect it, an interactions could mal uncomfortable. Children will of asking for permission choices, and seeking help who rules for using technology so other settings, and understincluding keeping personal in passwords. These skills will hand safe online presence where the settings in the second seeking help who have settings and understincluding keeping personal in passwords. These skills will hand safe online presence who have search ending the second secon	I skills in managing online online. They will know how ognise that not everything te basic webpages to find understand online identity, nd recognise when online ke others feel upset or I understand the importance online, respecting others' nen needed. They will explain safely, both at home and in stand the need for privacy, nformation secure and using	relationships, including the importance of permission, safe socialising, and respectful behaviour in digital spaces. Additionally, they will recognise the impact of		Upper Key Stage 2, child deep understanding of ma self-image, identity, onlin well-being. They will recebeing sceptical online, information, and make responline identity. They will know faced with online problem online interactions, and be additionally, children will their privacy, create strong time, and handle online understand copyright and	rge 2, children: By the end of ren will have developed a anaging online information, he relationships, and digital against the importance of evaluate the accuracy of ponsible choices about their now how to seek help when s, understand the impact of e respectful towards others. I learn strategies to protect g passwords, manage screen e bullying. They will also ownership, knowing when ent legally and ethically.

Online Safety	Self Image & Identity I know, that I can say 'no' - 'please stop' - 'I'll tell' - 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset.	Managing Online Information I can give simple examples of how to find information using digital technologies e.g. Kiddle, Google, Siri I know that there are a range of things online e.g. things which are real or make believe.	Managing Online Information I can use simple keywords in search engines. I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).	Managing Online Information I can demonstrate how to use key phrases in search engines to gather accurate information online. I can explain the difference between 'belief', 'opinion' and 'fact' online and how and where they might be shared.	Managing Online Information I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true. I can analyse information to judge the accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.	Managing Online Information I can explain what is meant by 'being sceptical'; I can give examples of when and why it is important to be 'sceptical'. I can identify ways the internet can draw us to information for different agendas, e.g. website notifications, pop-ups, targeted ads	Managing Online Information I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true. I can analyse information to judge the accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.
	Online Relationships We talk about ways in which the internet can be used to communicate. We talk about how I (might) use technology to communicate with people I know.	Self Image & Identity I can recognise that there may be people online who could make someone feel sad, embarrassed or upset. If something makes me feel sad, worried or uncomfortable I can say when and how to speak to an adult I can trust to get help.	Self Image & Identity I can explain how other people may look and act differently online and offline. I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened	Self Image & Identity I can explain what is meant by the term 'identity'. I can explain how people can represent themselves in different ways online.	Self Image & Identity I can explain how my online identity can be different to my offline identity. I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this.	Self Image & Identity I can explain how identity online can be copied, modified or altered. I can demonstrate how to make responsible choices about having an online identity, depending on context.	Self Image & Identity I can explain how my online identity can be different to my offline identity. I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this.
	Health, Well-being & Lifestyle I can follow the rules that to keep safe and healthy when using devices at home or in school (screen time etc.)	important.	Online Relationships I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure. I can explain who I should ask before sharing things about myself or others online.	and interests can	Online Relationships I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms) I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.	Online Relationships I can explain how someone can get help if they are having problems and identify when to tell a trusted adult. I can demonstrate how to support others (including those who are having difficulties) online.	Online Relationships I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms) I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.
	Privacy & Security I can identify simple examples of my personal information (e.g. name, address, birthday, age).	Health, Well-being & Lifestyle I can explain rules to keep myself safe when using technology both in and beyond the home.	Health, Well-being & Lifestyle I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment.	Health, Well-being & Lifestyle I can explain why spending too much time using technology can sometimes have a negative impact on anyone; I can give some examples of both positive and negative activities where it is easy to spend a lot of	Health, Well-being & Lifestyle I can explain how using technology can be a distraction from other things, in both a positive and negative way. I can identify times or situations when someone may need to limit the amount of	Health, Well-being & Lifestyle I recognise the benefits and risks of accessing information about health and well- being online and how we should balance this with talking to trusted adults and professionals.	Health, Well-being & Lifestyle I can explain how using technology can be a distraction from other things, in both a positive and negative way. I can identify times or situations when someone may need to limit the amount of time they use

				time engaged.	time they use technology e.g. I can suggest strategies to help with limiting this time.		technology e.g. I can suggest strategies to help with limiting this time.
1	Copyright & Ownership know that work I create pelongs to me.	Online Reputation I know that information can stay online and could be copied. I can describe what information I should not put online without asking a trusted adult first.	Online Reputation I can explain how information put online about someone can last for a long time. I can describe how anyone's online information could be seen by others.	Online Reputation I can explain how to search for information about others online. I can give examples of what anyone may or may not be willing to share about themselves online.	Online Reputation I can describe how to find out information about others by searching online. I can explain ways that some of the information about anyone online could have been created, copied or shared by others		Online Reputation I can describe how to find out information about others by searching online. I can explain ways that some of the information about anyone online could have been created, copied or shared by others.
		Privacy & Security  I can explain that passwords are used to protect information and accounts.  I know more detailed examples of information that is personal to someone.  I can explain why it is important to ask an adult before sharing any personal information online.	information, accounts and devices.  I can explain and give examples of what is meant by 'private' and 'keeping things	Privacy & Security I can describe simple strategies for creating and keeping passwords private. I can give reasons why someone should only share information with people they choose to and can trust. I can describe how connected devices can collect and share anyone's information with others.		Online Reputation I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect I can search for information about an individual online and summarise the information found.	Privacy & Security I can describe strategies for keeping personal information private, depending on context. I can explain that internet use is never fully private and is monitored, e.g. adult supervision. I can describe how some online services may seek consent to store information about me.
				Online Bullying I can describe appropriate ways to behave towards other people online and why this is important. I can give examples of how bullying behaviour could appear online and how someone can get support.	Online Bullying I can recognise when someone is upset, hurt or angry online. I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).	Privacy & Security I can explain what a strong password is and demonstrate how to create one. I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. I can explain what app permissions are and can give some examples.	I can describe ways people can be bullied through a range of media (e.g. image,
		I can describe how to behave online in ways that do not upset others and can give examples.	Online Bullying I can explain what bullying is, how people may bully others and how bullying can make someone feel.	Copyright & Ownership I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause.	explain why I need to consider who owns it and whether I have the right to reuse it.	the physical world and can describe some of those differences.	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.  I can give some simple examples of content which I

			I understand that work created by others does not belong to me even if I save a copy.	Copyright & Ownership I can recognise that content on the internet may belong to other people. I can describe why other people's work belongs to them.		Copyright & Ownership I can assess and justify when it is acceptable to use the work of others I can give examples of content that is permitted to be reused and know how this content can be found online.
Vocabulary	Safe, real, not real.	Online safety, true, false, age appropriate, choice		keywords, searching.	safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public.	spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraud/fraudulent, policy, private/personal.