

information technology school.Collecting, analysing, evaluating real world data/problem solving hardware and software.Controlling and programming using hardware and software.simulation software.Use different fort sizes, colours and effectively, apprentiate tables.Use search technologies evaluating real world and rankedDesign, write and debug grams that accomplish specific goals, controlling physical systemsCreate a short-animated sequence from captured storyboard an and rankedCreate a short-animated diagrams to have series of events and decisions (offline).Online Relationships Explai nome risks of comunicating online with others at offlithe).Use appropriate editing tools to ensure their work is clear and error free (using tools such as spell checker, thesaurus).Understand the dynamics of search engines and know that there are different sore ach engines - some within sites and some for the whole of the largerms to a swere a problem.Use logical reasoning to explain how some and key words to search for beychic up offlithe).Solve open ended problems with a floor robot, or other robit, or other proper sources and use it appropriately in their own work.Develop key questions and key words to search e.g. copy, paste and edit information to present workSolve problems by decomposing them into smaller parts.Solve problems by decomposing them into smaller parts. <th>Year 3</th> <th>Common uses of</th> <th>Data handling</th> <th>Programming</th> <th>Digital media-</th> <th>Modelling and</th> <th>Online Safety</th>	Year 3	Common uses of	Data handling	Programming	Digital media-	Modelling and	Online Safety
inside and beyond school.evaluating real world data/problem solving hardware and software.store, manipulate and retrieve digital content.Create simple flow diagrams to show a animation prior to communicate meaning.Online Relationships Explain some risks of communicating online with outsers selected and ranked dynamics of search engines and know that these are different search engines - some spell checker, free (using tools such as spell checker, thesaurus).Online Relationships Explain some risks of communicating online with others i don't know well.Use outs consure their work is clear and error free (using tools such as content.Understand the dynamics of search engines and know that thesaurus).Use logical reasoning to explain how some search engines - some within sites and some for specific information programsUse logical reasoning to explain how some and to detect and programsUse an onion layer to create as moth transitionsCreate a simple flow diagrams to control physical devices (real or screen simulations)Privacy and Security Should only share information with people I choose to and can transitionsUse torefine and reorder content.Develop key questions and key words to search for specific information resources and use it appropriately in their own work.Use researched information to present workSolve open ended programs by decomposing them into smaller parts.Import a background into an animationImport a background into an animationHealth, Wellbeing and Lifestyle Explain My spending to omuch time using technology can sometimes have a negative import of <br< th=""><th></th><th>information technology</th><th>Collecting, analysing,</th><th>Controlling and</th><th>Creating, organising,</th><th>simulation software-</th><th></th></br<>		information technology	Collecting, analysing,	Controlling and	Creating, organising,	simulation software-	
school.data/problem solvinghardware and software.retrieve digital content.Use different font sizes, colours and effects to communicate meaning.Use search technologies effectively, appreciate and rankedDesign, write and debug programs that accomplish specific goals, controlling physical systemsStryboard an animation prior to creating itCreate simple flow diagrams to show a series of events and decisions (offline).Dhine Relationships Explain some risks of communicating online well.Use appropriate diffus tools to ensure their work is clear and error free (using tools such as spell checker, thesaurus).Use logical reasoning to explain how some simple algorithms work and to detect and algorithms and programsUse an onion layer to create smooth transitionsCreate simple flow diagrams to control physical devices (real or screen simulations)Privacy and Security offline).Use cut, copy and paste to refine and reorder content.Develop key questions and key words to search information to answer a problem.Solve open ended problems by decomposing them into smaller parts.Import a background into an animationInto an animationHealth, Wellbeing and LifestyleUse researched information purposefully to complet specific tasks e.g. copy, paste and elit information to present work.Solve problems by decomposing them into smaller parts.Solve problems by decomposing them into smaller parts.Greate and creating it corteet encoticCreate simple flow diagrams to control privacy and Security solve on the problems by decomposing them into smaller pa		inside and beyond	evaluating real world	programming using	store, manipulate and		
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Select suitable text and images from electronic resources and use it appropriately in their own work. Solve problems by decomposing them into smaller parts. Solve some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos).			for specific information	programmable devices.			technology can
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resources and use itOse researcheddecomposing them intoappropriately in theirinformationsmaller parts.own work.purposefully tocomplete specific taskse.g. copy, paste and editinformation to presentworkworkline engaged (e.g.games, films, videos).		images from electronic		Solve problems by			negative impact on me.
appropriately in theirinformationsmaller parts.Give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos).		resources and use it	Use researched	decomposing them into			
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information to present work			complete specific tasks				time engaged (e.g.
work			e.g. copy, paste and edit				time engaged (e.g.
WORK			work				games, mins, videos).
			WUIK				
Develop skills to know			Develon skills to know				
which data needs to be			which data needs to he				
collected and design a			collected and design a				



	questionnaire to aid its		
	collection.		
	Collect appropriate		
	information, enter it		
	into a database and use		
	the database to answer		
	simple questions.		
	Determine the data		
	needed to solve a		
	specific problem;		
	organise, present,		
	analyse and interpret		
	the data in tables and		
	charts		
	Understand what a		
	database is by creating a		
	physical one		
	Consider how much		
	easier it is using ICT for		
	data handling		



Year 3 Brain	Computing Skills and Word	Search Engines	Probots	Flowol	Pivot Animator	Excel
Busters	BB1: You can create	BB1: The more specific	BB1: An algorithm is a	BB1: A flowchart uses	BB1: An animation is a	BB1: A database holds
	word documents on	your search is, the	set of instructions.	pictures to represent	combination of different	information.
	Microsoft Word	better results you will		steps in a process.	scenes to create	
		get.			motion.	
	BB2: The 'A' icon when	BB2: Search results are	BB2: Debug means to	BB2: An oval represents	BB2: Pivot animator is a	BB2: Top trumps are an
	clicked will alter the	ranked in order of	correct errors.	the start or end point of	program used to create	example of a database.
	colour of the text.	usefulness and		a flow diagram.	an animation.	
		relevance.				
	BB3: You have to use	BB3: Google is the most	BB3: Decompose means	BB3: A parallelogram is	BB3: Animations can be	BB3: Excel is a
	the insert button to	popular search engine.	to break down into	used to represent inputs	used to tell stories.	commonly used
	create a table.		smaller parts.	or outputs.		program for databases.
	BB4: You can copy and	BB4: Use the right	BB4: After debugging an	BB4: A simulation is	BB4: You need to add a	BB4: A spreadsheet
	paste from the internet	button on your mouse	algorithm we test it.	used to test instructions	frame each time you	holds lots of different
	into a Word Document.	to copy and paste.		in a Flowchart.	want to save a	types of data.
					movement.	
	BB5: Spell check is used	BB5: Copyright means	BB5: A procedure is a	BB5: A flow diagram can	BB5: Animations work	BB5: Data from
	to correct spelling errors	someone has ownership	process within an	be used to control	best through short,	spreadsheets can be
		over a product.	algorithm.	multiple inputs and	concise movements.	presented in charts and
				outputs.		graphs.

Year 3	Computing Skills and	Search Engines	Probots	Flowol	Pivot Animator	Excel
Vocabulary	Word					
	Computer	Search Engine	Decompose	Output	Animation	Spreadsheet
	Microsoft	Rank	Navigate	Control	Frame	Column
	Font	Kiddle	Algorithm	Input	Storyboard	Row
	Screen	Copyright	Debug	Simulation	Onion skin	Cell
	Windows	Browser	Test	Flow diagram	Import	Database
	Table	Order	Procedure		Media	Chart
	Mouse	Сору	Program			
	Edit	Paste				
	Сору					
	Keyboard					



Year 4	Common uses of	Data handling	Programming	Digital media-	Modelling and	Online Safety
	information technology	collecting, analysing, evaluating real world	Controlling and	store, manipulate and	simulation software-	
	school.	data/problem solving	hardware and software.	retrieve digital content.		
				U		
	Use layout, format,	NA	Design, write and debug	Use ICT to select and	Discuss ways	Online Bullying
	graphics and		programs that	record voice and sounds	simulations are used to	Explain why I need to
	illustrations for different		accomplish specific	and use recorded sound	help us (e.g. flight	think carefully about
	purposes or audiences.		goals	files in other	simulations to teach	how content I post
				applications.	pilots, driving	might affect others,
	Recognise key features		Use Logo programming		simulators, weather	their feelings and how it
	of layout and use design		algorithms (pen-up/pen-	Start to evaluate media	pattern simulations	may affect how others
	features such as text		down, repeat	used in the world	etc.).	feel about them (their
	boxes, columns and		commands etc.) to	around us What is the		reputation).
	borders.		create shapes/patterns.	message of the	Discuss their use of	
				clip/image/sound? Does	simulations and	Self-image and identity
	Use page setup to select		Test to detect errors	it work? Why?	compare with reality.	Explain how my online
	different page sizes and		and modify procedures			identity can be different
	orientations.		or sequences where	Acquire, store and	Be able to explore the	to the identity I present
			necessary.	retrieve images from	effect of changing	in 'real life'.
	Select and import			cameras, scanners or	variables.	
	images and prepare for		Use logical reasoning to	the internet and begin		Online Reputation
	use (cropping, resizing,		explain how some	to use paint packages or	Work with variables and	Describe how others can
	editing).		simple algorithms work	photo-manipulation	various forms of input	find out information
			and to detect and	software to change an	and output	about me by looking
	Start to independently		correct errors in	image		online.
	select ways to		algorithms and		Use variables to make	
	communicate their own		programs.	Select specific areas of a	and test predictions to	
	ideas.			painting, copy and paste	support learning in	
			Create a procedures	to make repeating	other subject areas.	
	Contribute to discussion		(e.g. a square in Logo)	patterns.		
	torums, blogs and		Create conversion ()	Desing along onto		
	surveys on a Learning		Create sequences (e.g. a	Resize elements.		
	Platform and create		logo procedure that			
	their own.		rotates x degrees and			



	draws another square	Develop greater control	
Skills need to be applied	and so on.)	over the digital stills use	
in different applications		the enhanced tools	
and contexts with pupils		(Landscape, Zoom).	
starting to make			
choices.		Discuss and evaluate the	
		quality of their own and	
Begin to understand		others' captured	
about online identities		images.	
and differences			
between private or			
public presence			
Discuss and evaluate			
blogs/wikis/websites			

Year 4	Duck Builder	MSW Logo	Audacity	Publisher	Paint.net	Gsuite
Brain						
Busters	BB1: A simulation is a	BB1: Algorithms are	BB1: A jingle is a short	BB1: Publisher allows	BB1: A logo is a symbol	BB1: GSuite is a group of
	safe way of testing	instructions for	song or tune.	you to format and	made up of images and	tools that helps to
	things.	computers to follow		position documents	texts.	provide collaboration
				easily.		and communication.
	BB2: Duck Builder is an	BB2: Computers will	BB2: A programme used	BB2: Guides are used to	BB2: Paint.net is	BB2: We must use chats
	example of a simulation.	follow algorithms	to do specific tasks is	help with your design.	software used to create	sensibly as everything
		exactly the way they are	called software e.g.		images.	we type and send is
		written	Audacity.			stored.
	BB3: Simulations are	BB3: 'Bugs' in algorithms	BB3: We can control	BB3: Royalty free images	BB3: Paintbrushes can	BB3: You can share a file
	used to train astronauts.	are present because of	features such as record	are non-transferrable	be used to change size,	when 'chatting online'
		human error	and edit using software.		fill and colour.	by clicking the
						+ symbol.
	BB4: A parameter is a	BB4: When writing	BB4: To import a file	BB4: Copyright is the	BB4: Layers are a way to	BB4: A forum is an
	limit.	algorithms, we need to	means to bring it from	right a creator has over	edit parts of an image.	online discussion board.
		link our maths skills	one format to another.	their work/design.		



BB5: Changing	BB5: MSWlogo uses	BB5: Voice overs are	BB5: Target audience	BB5: Selection tools can	BB5: A contacts list is a
parameters in a	algorithms to draw	words spoken by a	are the group of people	create shapes.	collection of screen
simulation affects the	shapes	person who is not seen.	who the product/		names.
outcome.			service is aimed at.		

Year 4	Duck Builder	MSW Logo	Audacity	Publisher	Paint.net	Gsuite
Vocabulary	Parameter	Algorithm	sound	leaflet	Paint.net	message
	Simulation	Program	record	design	logos	communication
	Specified	Procedures	import	Publisher	symbols	digital
	Variable	Patterns	internet	guide	brushes	email
	Audience	Fd=Forward	jingle	format	image	blog
	Purpose	Bk=Backward	pitch	re-size	watermark	GSuite
		Rt=Right turn	volume	royalty free	layers	Share
		Lt=Left turn	microphone	copyright	tools	Personal
		Computational thinking	sound wave	Word Art	letterforms	forum



Year 5	Common uses of information technology inside and beyond school	Data handling Collecting, analysing, evaluating real world data/problem solving	Programming Controlling and programming using bardware and software	Digital media- Creating, organising, store, manipulate and retrieve digital content	Modelling and simulation software-	Online Safety
	301001.	uata/problem solving	naruware and software.	retrieve digital content.		
	NA	Understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration Select an appropriate search engine to find information related to their topic. Develop strategies for finding information checking for bias and different viewpoints (using different keywords, cross checking with other sources etc.). Discuss how internet search engines find, store and rank data.	Evaluate ready-made games and simulations before designing own to know what makes a good game. Design own game or simulation and use a programming tool to create it for use by others. Explain the algorithms to show an understanding of the logical steps and debug where necessary. Work with variables and various forms of input and output. In Scratch, develop more complex flow diagrams/sequences for a specific purpose Use selection, repetition and variables in	Independently select, edit and combine sound files. Manipulate the sounds (such as reversing sounds, adding echo, altering speed etc) and using them appropriately considering audience and purpose. Use ICT to produce music for a specific purpose, considering the impact on the audience (e.g. length, style, genre etc.). Evaluate media used in the world around us (video clips, images, sounds etc.). What is the message? Does it work? Why? Plan and create a short- animated sequence to	NA	 Online Relationships Describe some of the communities in which I am involved and describe how I collaborate with others positively. Privacy and Security Explain how many free apps or services may read and share my private information with others. Health, Wellbeing and Lifestyle Describe ways technology can affect healthy sleep and can describe some of the issues.
		question where web	algorithms (more	communicate an idea,		



content might originate	complex loops, repeats	using a storyboard and	
and understand that this	or timed events).	timeline adding own	
gives clues to its		narration or music.	
authenticity/reliability	Work with variables and		
(by looking at web	various forms of input	Combine stills, video	
address, author, linked	and output.	and sound using a video	
pages etc.).		editing package.	
	Detect and correct		
Discuss issues of	errors (debug) to	Make use of transitions	
copyright and	improve desired	and special effects in	
downloading material	outcomes.	video editing software	
(e.g. mp3s, images,		and understand the	
videos etc.).	Solve problems by	effect they have on the	
	decomposing them into	audience.	
Reference sources used	smaller parts.		
in their work.			
Use the pre-			
programming features			
of data logging software			
and devices to set up a			
specific data capture,			
perhaps overnight.			
Use graphical			
information to answer			
questions and solve			
simple problems.			
Use a range of sensors			
(temperature, light,			
sound, etc.) in a variety			
of situations in the			
course of scientific			
investigations.			



Discuss jobs where data loggers are used in the world (e.g. meteorologists, volcanologists, seismologists).		
Research to find out		
how they log data.		

Year 5 Brain	Networks and Search Engines	Kodu	Data Logging	Scratch – Broadcasting	Audacity	Stop Animation
Busters	BB1: A computer network is a group of computers that are connected.	BB1: A sub-routine is an action that is a result of a changing routine.	BB1: Data logging is a way of measuring and recording information.	BB1: A sprite is a programable character.	BB1: Audacity is a music editing software.	BB1: A stop animation involves lots of frames being created and put together.
	BB2: Information and data can be shared across a network.	BB2: A digital environment is the physical setting of a game.	BB2: Data loggers can measure sound, light and temperature.	BB2: A script is a set of instructions which tell the sprite what to do.	BB2: The sound file (music) is called a 'track'.	BB2: A frame is a snapshot.
	BB3: The internet is a global network.	BB3: A routine is a repetitive task.	BB3: The metric measure of temperature is Celsius (°C)	BB3: Input is information entered into the computer.	BB3: Importing music means to transfer sound files into a program.	BB3: 'Shorts' is a name for short films.
	BB4: Copyright means giving credit to content creators.	BB4: You can programme using the instructions 'when' and 'do'. E.g. When this happens, do this.	BB4: Sound is measured in decibels (dBA)	BB4: A variable is something that can be changed in a computer game.	BB4: A fade-in is when the volume of a track slowly increases.	BB4: A storyboard is used to plan a stop animation.
	BB5: Search engines search hundreds of billions of pages on the world wide web.	BB5: An NPC is a non- player character that is pre-programmed.	BB5: Light intensity is measured in Lux (lx)	BB5: Conditions are created by the programmer to influence	BB5: An effect can be added to a track to manipulate the sound of the track. E.g. distortion.	BB5: 'The Nightmare Before Christmas' is a famous stop animation film.



		actions in a game.	

Year 5	Networks and Search	Kodu	Data Logging	Scratch – Broadcasting	Audacity	Stop Animation
Vocabulary	Engines					
	network	Variable	Data	Sprite	Interface	Transitions
	server	Routine	Analyse	Script	fade-in/out	Frames
	router	sub-routine	Record	Condition	track	Onion
	IP address		Intervals	Rule	looping	layer
	wireless		Probe	Object	effect	
	internet		Measure	if/then		
			Automated	decomposition		
			intensity			



Year 6	Common uses of information technology	Data handling Collecting, analysing, evaluating real world	Programming Controlling and programming using	Digital media- Creating, organising, store, manipulate and	Modelling and simulation software-	Online Safety
	school.	data/problem solving	hardware and software.	retrieve digital content.		
	Use and refine their	Design questions using	Evaluate ready-made	Combine stills, video	Use an object-based	Online Bullying
	skills while	key words, to search a	games, apps and	and sound using a video	graphics package to	Describe how to capture
	independently creating,	large pre-prepared	simulations before	editing package.	design(model).	bullying content as
	sending and responding	database.	designing own to know			evidence to share with
	to emails, blogs and		what makes a good	Make use of transitions	Create images using a	others who can help me.
	forums.	Use complex searches	game. What will their	and special effects in	range of techniques.	
		(and/or, is greater/less	own game look like?	video editing software		Self-image and identity
	Produce formal or	than) to search data	<u> </u>	and understand the	Use measurement tools	Explain how identity
	informal messages	when looking for	Design own game,	effect they have on the	to create scale	online can be copied,
	appropriate to the task	relationships and	simulation or app and	audience.		modified or altered.
	or to solve problems	patterns in data.	use a programming tool		Use guidelines	Online Reputation
	(requesting information,	Constant aufine and	to create it for use by	Enhance a presentation		Describe some simple
	sharing data etc.).	Construct, refine and	others.	by acquiring, storing,		ways that help build a
	Understand about	Interpret frequency	Evalain the algorithms	and combining images		positive online
	Understand about	tables, bar charts with	Explain the algorithms	from different sources.		reputation.
	differences between	grouped discrete data	to show an	Dian and create a chart		
	anierences between	and line graphs;	logical stops and dobug	Pidit difu create a snort		
	Platform) or public	interpret ple charts.	whore pocossary	an idea using a		
	presence (social	Identify and enter the	where hecessary.	storyboard and timeline		
	networks)	correct formulae into	Work with variables and	adding own narration or		
	networksj.	cells modify the data	various forms of input	music		
	Know what acceptable	make predictions of	and output	indoie.		
	online behaviour is	changes and test them.	Write sequences which	Evaluate media used in		
			use outputs and inputs	the world around us and		
	Critically evaluate	Use more advanced	(using selection 'if	what messages varving		
	blogs/wikis/websites).	formulae (Sum, average.	then' type commands)	camera angles portrav.		
	What makes a good	mode etc.).	to control events in	0 1 1		
	site? Explore safe social	,	response to conditions.			
	network sites.					



		Enter labels and	Use sub routines to		
Devel	elop the use of	numbers into a	decompose the problem		
hyper	erlinks to produce	spreadsheet.	into smaller parts		
intera	ractive	Enter formulae into a			
nrese	entations or	spreadsheet and modify	Explain the logical steps		
websi	sites	the data (simple	of the flow diagram in		
Webs	Sites.	calculations $+ - x \rightarrow$	the design process		
Linde	erstand how nages		the design process.		
link to	together and	Lise a spreadsheet to	View code in their own		
	gnise the need for	draw a graph to help	new code in their own		
clarity	ty	answer specific	understand how		
Clarity	ty.		commorcial games are		
Dradu	luco o diagram to	questions.	commercial games are		
Produ	iuce a ulagram to		created (e.g. Scratch).		
show	v the links between				
pages	es.				

Year 6	Blogs, Websites and	Excel	Film Trailers	Scratch Games	Powerpoint	Sketch Up
Brain	email					
Busters	BB1: Online identity is	BB1: Spreadsheets can	BB1: Trailers show key	BB1: Scratch is used to	BB1: Hyperlinks create a	BB1: Sketch Up is a 3D
	how you are perceived	be used to store, filter	parts of a film.	code games.	link to websites and	modelling program.
	online.	and search for data.			PowerPoint pages.	
	BB2: Communicating	BB2: SUM = calculating	BB2: The trailer is used	BB2: Algorithms = set of	BB2: A 'Home Button' is	BB2: The shape tool
	and posting online	data in cells	to promote the film.	instructions.	a hyperlink to the	creates the outline of a
	creates your online				starting page	2D shape.
	identity.					
	BB3: Trolls are people	BB3: Data is inputted	BB3: A storyboard is	BB3: Debug = correct a	BB3: Flow charts can be	BB3: The push pull tool
	who negatively	into cells.	used to plan a trailer.	mistake in algorithms.	used to plan hyperlinks	is used to create a 3D
	comment repeatedly.					model.
	BB4: Fake news is	BB4: Data can be	BB4: Filmmakers use	BB4: Variables =	BB4: Multiple choice	BB4: The orbit, pan and
	misleading information.	presented as bar charts	transitions between	information that can	games use hyperlinks.	zoom tools allow you to
		or pie charts.	shots.	change		view your shape from all
				e.g. score.		angles.



BB5: E-mails are formal	BB5: AVERAGE = SUM	BB5: Editing is a key part	BB5: Tests must be	BB5: A hyperlink can be	BB5: The offset tool can
	divided by amount of	of the film making	carried out to check for	a button, a web address	be used to create detail.
	data	process.	bugs before games go	or a picture	
			live.		

Year 6	Blogs, Websites and	Excel	Film Trailers	Scratch Games	Powerpoint	Sketch Up
Vocabulary	email					
	Fake news	Spreadsheet	Storyboard	Algorithms	Hyperlink	Perspective
	communication	Filter	Stills	test	linear	Axis
	social media	Formula(e):	Transitions	code	non-linear	Scale
	cyberbullying	SUM	Special Effects	Debug	Diagram	Model
	online identity	AVERAGE	Soundtrack	evaluate	link	2D and 3D
	e-mail	Cell	Edit	variables		Orbit
	misinformation	Data				
	trolling	mean				
	blog					