Focus Area	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computing systems	PSED –	Technology around us	IT around us	Connecting computers	The Internet	Systems and sharing	Systems and sharing
and networks	 Show resilience and 	I know how to explain that	I know different types of	I know what an input is	I know how networks	I know that a system is a set	I know that computer
	perseverance in the face of a	technology is something that	computers used in school	I know that a process acts on	connect to other networks	of interconnected parts	systems communicate with
	challenge.	can help us	I know that a computer is a	the inputs	I know how information can	which work together	other devices
	 Know and talk about the 	I know how to identify	part of information	I know that an output is	be shared via the World Wide	I know that computers can be	I know that data can be
	different factors that support	examples of technology	technology	produced by the process	Web	connected together to form	transferred between IT
	their overall health and	I know examples of	I know the features of	I know how computer	I know that the World Wide	IT systems	systems
	wellbeing:	technology which help us	information technology	systems can change the way	Web is part of the internet	I know how a particular IT	I know that there are human
	- sensible amounts of 'screen	I know that a computer is an	I know about uses of	that we work	I know that the global	system has a role in my life	elements of a computer
	time'.	example of technology	information technology	I know how changing the	interconnection of networks	I know that search engines	system
		I know that choices are made	I know how rules for using	process can affect the output	is the internet	are examples of large IT	I know that search engines
	ELG – PSED – Managing Self:	when using technology	information technology can	I know that a digital device is	I know that the global	systems	create indices, and that they
	Be confident to try new	I know that rules are needed	help us	made up of several parts	interconnection of networks	I know that search engines	are different for each search
	activities and show	when using technology	I know how information	I know that computers can be	is the internet	create indices, and that they	engine
	independence, resilience and	I can choose a piece of	technology benefits us	connected to each other	I know the need for security	are different for each search	I know the role of web
	perseverance in the face of	technology to do a job	I know that choices are made	I know how devices in a	on the internet	engine	crawlers in creating an index
	challenge.	I can recognise that some	when using information	network are connected with	I know the types of	I know how search results are	I know that ranking orders
	Explain the reasons for	technology can be used in	technology	one another	content/media that can be	selected	search results to make them
	rules, know right from wrong and try to behave	different ways I can identify the main parts	I can describe some uses of	I know that a network is made up of a number of	added, created, and shared on the World Wide Web	I know that ranking orders search results to make them	more useful I know how ranking is
	and try to behave accordingly.	of a computer	computers I can identify information	components	I know how the content of	more useful	determined by rules, and that
	accordingly.	I can use a mouse in different	technology in school	I know how information is	the World Wide Web is	I know why the order of	different search engines use
		ways	I can identify information	passed through multiple	created, owned, and shared	results is important and to	different rules
		I can use a keyboard to type	technology beyond school	connections	by people	whom	I know why the order of
		I can use the keyboard to edit	I can show how to use	I know the benefits of	I know that the internet	I know how search engines	results is important and to
		text	information technology safely	computer networks	enables us to view the World	make money by selling	whom
		I can show how to use	omation teamonogy surely	I can input and output	Wide Web	targeted advertising space	I know how search engines
		technology safely		devices	I know that the World Wide	I know some of the	make money by selling
				I can explain that a computer	Web comprises of websites	limitations of search engines	targeted advertising space
				system accepts an input and	and web pages	I know not to believe	I know some of the
				processes it to produce an	I know the current limitations	everything we see online	limitations of search engines
				output	of World Wide Web media	I can describe the input and	and somethings can not be
				I can explain how a computer	I know the reliability of	output of a search engine	searched
				network can be used to	content and the	I can identify tasks that are	I know not to believe
				shared information	consequences of unreliable	managed by computer	everything we see online
				I can explain the role of a	content	systems	I can describe the input,
				switch server, and wireless	I know the benefits of the	(I can explain the benefits of	process, and output of a
				access point in a network	World Wide Web	a given computer system)	digital system
				I can explain how networks	I know how to access the	I can demonstrate that	I can explain that computer
				can be connected to other	World Wide Web	different search terms	systems communicate with
				networks	I can describe how networks	produce different results	other devices
					physically connect to other	I can explain how search	I can explain the benefits of a
					networks	engines make money	given computer system
					I can explain the types of	I can describe some of the	I can recognise the role of
					media that can be shared on	ways that search results can	web crawlers in creating an
					the Word Wide Web	be influenced	index
					I can create media which can	I can evaluate the results of	I can explain that a search
					be found on websites	search terms	engine follows rules to rank
			l				results

							,
					I can explain that website and		I can evaluate the results of
					their content are created by		search terms
					people		I can explain how search
					I can explain that not		engines make money
					everything on the World		I can recognise some of the
					Wide Web is true		limitations of search engines
					I can explain why some		Communication and
					information I find online may		collaboration
					not be honest, accurate, or		I know that data is
					legal		transferred across networks
					I can explain why I need to		using agreed protocols
					think carefully before I share		(methods)
					or reshare content		I know that connections
							between computers allow
							access to shared stored files
							I know that data is
							transferred in packets
							I know that computers
							connected to the internet
							allow people in different
							places to work together
							I know the opportunities that
							technology offers for
							communication and
							collaboration
							I know which types of media
							7.
							can be shared through the
							internet
							I know that communicating
							and collaboration using the
							internet can be public or
							private
							I can choose methods of
							communicating and
							collaborating using the
							internet
							I can choose methods of
							internet communication and
							collaboration for given
							purposes
							I can evaluate different
							methods of online
							communication and
							collaboration
							I can decide what you should
							and should not share online
Programming	PSED –	Moving a robot	Robot algorithms	Sequence in music	Sequence in music	Selection in physical	Selection in physical
	Show resilience and	I know words that can be	I know describe that a series	I know that sprites are	I know that a program	computing	computing
	perseverance in the face of a	enacted	of instructions is a sequence	images I can create and	includes sequences of	With support:	Independently:
	challenge.	I know what a given	I know what happens when	program	commands and these can	I know that a condition can	I know that a condition can
		command does	we change the order of	I know "blocks" in Scratch	build up complexity	only be true or false	only be true or false
	ELG – PSED – Managing Self:		instructions	means instead of writing lines	depending on the purpose		

· Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.

PD -

· Develop their small motor skills so that they can use a range of tools competently, safely and confidently.

I know how to match a command to an outcome I know that a program is a set of commands that a computer can run I know that a series of instructions can be issued before they are enacted I can enact a given word I can predict the outcome of a command on a device I can list which commands can be used on a given device I can run a command on a floor robot I can choose a command for a given purpose

I can choose a series of words that can be enacted as a program I can choose a series of

commands that can be run as a program I can build a sequence of

commands in steps I can combine commands in a program

I can run a program on a

Introduction to animation I know how to enact a given

word I know words that can be enacted

I know how to predict the outcome of a command on a device

I know that commands can be used on a given device I know what a given command does I know how to match a command to an outcome To recognise how to run a command (press a button) To choose a command for a given purpose To understand that a program is a set of commands a computer can

run

I know that a series of instructions can be issued before they are enacted I know that you can predict the outcome of a program I can choose a series of words that can be enacted as a sequence I can choose a series of instructions that can be run

as a program I can create a program I can trace a sequence to make a prediction I can run a program on a device

I can debug a program that I have written I can choose a series of words that can be enacted as a sequence

I can explain what happens when we change the order of instructions I can choose a series of

commands that can be run as a program I can trace a sequence to

make a prediction I can test a prediction by running the sequence I can create and debug a program that I have written I can run a program on a device

An introduction to quizzes

I know a series of instructions is a 'sequence' I know that a series of instructions can be issued before they are enacted I know that logical reasoning is used to predict the outcome of a program

of code to program you use "blocks" I know that commands in Scratch are represented as

blocks I know that programs start because of an input I know what a sequence is

I know that a program includes sequences of commands I know that the sequence of a

program is a process I know that the order of commands can affect a program's output I can build a sequence of

commands I can move a sprite I can combine commands in a

I can order commands in a program

Events and actions

I know that programs start because of an input I know that everyday tasks include repetition as part of a sequence, eg brushing teeth, dance moves I know that we can use a loop command in a program to repeat instructions I know that there are patterns in a sequence I know how to identify a loop within a program I know that in programming there are indefinite loops and count-controlled loops I know that an indefinite loop will run until the program is

I know that you can program

a loop to stop after a specific

number of times

and when not to

I know how to identify

patterns in a sequence, eg

'step 3 times' means the

same as 'step, step, step'

I know when to use a loop

repeat instructions and how they improve the sequence I know how to identify a loop within a program I know that in programming there are indefinite loops and count-controlled loops I know that an indefinite loop will run until the program is stopped I know that you can program a loop to stop after a specific number of times I know how to identify patterns in a sequence, eg 'step 3 times' means the same as 'step, step, step' I know when to use a loop and when not to I know the importance of instruction order in a loop I know that not all tools enable more than one process to be run at once

same output

sprite

sequence of commands

I can combine complex

commands in a program

commands in a program

commands to produce a

I can create a sequence of

command in a program to

I can order complex

given outcome

Events and actions

I can move more than one

I know that the sequence of a I know that a countprogram is a process controlled loop is a command I know that the order of that repeatedly runs a defined section of code a commands can affect a program's output and how predefined number of times changing the order can I know that a countchange the outcome controlled loop contains a I know that different condition sequences can achieve the I know that a conditioncontrolled loop command I know that different that repeatedly runs a sequences can achieve defined section of code until different outputs a condition is met I can build a complex I know that a condition-

> when a condition is met I know when a condition is met, a loop will complete a cycle before it stops I know that selection can be used to branch the flow of a program

I know that a loop can be used to repeatedly check whether a condition has been I know that we can use a loop met

controlled loop will stop

I know the importance of instruction order in 'if...then...else...' statements I can create a conditioncontrolled loop I can compare a countcontrolled loop with a condition-controlled loop I can use a condition in an

'if...then...' statement to start an action I can use selection to switch the program flow in one of two ways

I can use a condition in an 'if...then...else...' statement to produce given outcomes Selection in guizzes

I know that an algorithm is a precise set of ordered steps that can be followed by a human or a computer to achieve a task

I know that a condition can only be true or false

I know that a countcontrolled loop is a command that repeatedly runs a defined section of code a predefined number of times I know that a countcontrolled loop contains a condition I know that a condition-

controlled loop command that repeatedly runs a defined section of code until a condition is met I know that a conditioncontrolled loop will stop when a condition is met I know when a condition is

met, a loop will complete a cycle before it stops I know that selection can be used to branch the flow of a program

I know that a loop can be used to repeatedly check whether a condition has been met

I know the importance of

instruction order in 'if...then...else...' statements I can create a conditioncontrolled loop I can compare a countcontrolled loop with a condition-controlled loop I can use a condition in an 'if...then...' statement to start an action

I can use selection to switch the program flow in one of two ways

I can use a condition in an 'if...then...else...' statement to produce given outcomes

Selection in guizzes

I know that an algorithm is a precise set of ordered steps that can be followed by a human or a computer to achieve a task I know that a condition can only be true or false

To recall that a series of I know the importance of I can an indefinite loop to I know that a count-I know that a countinstructions can be issued instruction order in a loop produce a given outcome controlled loop is a command controlled loop contains a before they are enacted I can use a count-controlled that repeatedly runs a condition I can list an everyday task as defined section of code a I know the difference To build a sequence of a set of instructions including loop to produce a given commands in steps repetition outcome predefined number of times between a count-controlled To combine commands in a I can an indefinite loop to I know that a countloop and a condition-I can plan a program that includes appropriate loops to controlled loop contains a controlled loop program produce a given outcome I can choose a series of words I can use a count-controlled produce a given outcome condition I know that when a condition that can be enacted as a loop to produce a given independently I know the difference is met a loop will complete a program outcome I can recognise tools that between a count-controlled cycle before it stops I can choose a series of I can plan a program that enable more than one loop with a condition-I know that selection can be commands that can be run as includes appropriate loops to process to be run at the same controlled loop used to branch the flow of a I know that a conditiona program produce a given outcome time (concurrency) program I can run a program on a I can recognise tools that I can make my own design controlled loop command I know that a loop can be device enable more than one choices and justify them that repeatedly runs a used to repeatedly check process to be run at the same I can evaluate my project and defined section of code until whether a condition has been time (concurrency) explain what went well and a condition is met I know that a condition-I know the importance of I can make two or more what needs to be improved sequences that run at the Repetition in shapes controlled loop will stop instruction order in 'if... I know that 'repeat' means to when a condition is met then... else...' statements same time Repetition in shapes do something more than I know that when a condition I can choose a condition to I know that 'repeat' means to once is met a loop will complete a use in a program do something more than I know that everyday tasks cycle before it stops I can create a conditionthat include repetition as part I know that selection can be controlled loop I know that a loop command used to branch the flow of a I can use a condition in an of a sequence in a program is used to I know that a loop command program 'if... then...' statement to repeat instructions in a program is used to I know that a loop can be start an action I know that in programming repeat instructions used to repeatedly check I can use selection to switch whether a condition has been there are indefinite loops and program flow I know that in programming count-controlled loops there are indefinite loops and I can use 'if... then... else...' to I know that an indefinite loop count-controlled loops I know the importance of switch program flow in one of will run until the program is I know that an indefinite loop instruction order in 'if... two wavs stopped will run until the program is then... else...' statements Variables in games I know that you can program stopped I can choose a condition to Independently: I know a variable is a named a loop to stop after a specific I know that you can program use in a program a loop to stop after a specific I can create a conditionpiece of data (often a number number of times I know that patterns in a number of times controlled loop or text) stored in a sequence, eg 'step 3 times' I know when to use a loop I can use a condition in an computer's memory, which means the same as 'step, and when not to 'if... then...' statement to can be accessed and changed step, step' I know the importance of start an action by a computer program I know a 'variable' as I know when to use a loop instruction order in a loop I can use selection to switch something that is changeable and when not to I can list an everyday task as program flow I know the importance of a set of instructions including I can use 'if... then... else...' to I know that a variable can be instruction order in a loop repetition switch program flow in one of used in a program, eg 'score' I can use an indefinite loop I can use an indefinite loop to two ways I know how to program to produce a given outcome produce a given outcome Variables in games variables as a placeholder in I can use a count-controlled I can use a count-controlled With support: memory for a single value loop to produce a given loop to produce a given I know a variable is a named I know that a variable has a outcome piece of data (often a number name and a value outcome I can identify patterns in a I can identify patterns in a or text) stored in a I know that the value of a sequence sequence computer's memory, which variable can be used by a program

		I can identify a loop within a	I can identify a loop within a	can be accessed and changed	I know that the value of a
		program	program	by a computer program	variable can be updated
		I can plan a program that	I can plan a program that	I know a 'variable' as	I know that variables can hold
		includes appropriate loops to	includes appropriate loops to	something that is changeable	numbers (integers) or letters
		produce a given outcome	produce a given outcome	I know that a variable can be	(strings)
		I can recognise tools that	I can recognise tools that	used in a program, eg 'score'	I know that a variable can be
		enable more than one	enable more than one	I know how to program	set as a constant (fixed value)
					I know the importance of
		process to be run at the same time (concurrency)	process to be run at the same time (concurrency)	variables as a placeholder in memory for a single value	setting up a variable at the
		, , , , , , , , , , , , , , , , , , , ,		I know that a variable has a	start of a program
		I can create two or more	I can create two or more	name and a value	(initialisation)
		sequences that run at the	sequences that run at the	I know that the value of a	,
		same time	same time		I know that there is only one
		Repetition in games	Repetition in games	variable can be used by a	value for a variable at any
		I know that 'repeat' means to	I know that 'repeat' means to	program	one time
		do something more than	do something more than	I know that the value of a	I know that if you change the
		once	once	variable can be updated	value of a variable, you
		I know loop command in a	I know loop command in a	I know that variables can hold	cannot access the previous
		program to repeats	program to repeats	numbers (integers) or letters	value (cannot undo)
		instructions	instructions	(strings)	I know that if you read a
		I know that in programming	I know that in programming	I know that a variable can be	variable, the value remains
		there are indefinite loops and	there are indefinite loops and	set as a constant (fixed value)	I know that the name of a
		count-controlled loops	count-controlled loops	I know the importance of	variable is meaningless to the
		I know that an indefinite loop	I know that an indefinite loop	setting up a variable at the	computer
		will run until the program is	will run until the program is	start of a program	I know that the name of a
		stopped	stopped	(initialisation)	variable needs to be unique
		I know that you can program	I know that you can program	I know that there is only one	I can identify examples of
		a loop to stop after a specific	a loop to stop after a specific	value for a variable at any	information that is variable,
		number of times	number of times	one time	for example, a football score
		I know that patterns in a	I know that patterns in a	I know that if you change the	during a match
		sequence, eg 'step 3 times'	sequence, eg 'step 3 times'	value of a variable, you	I can identify a variable in an
		means the same as 'step,	means the same as 'step,	cannot access the previous	existing program
		step, step	step, step'	value (cannot undo)	I can experiment with the
		I know when to use a loop	I know when to use a loop	I know that if you read a	value of an existing variable
		and when not to and explain	and when not to and explain	variable, the value remains	I can choose a name that
		why	why	I know that the name of a	identifies the role of a
		I know the importance of	I know the importance of	variable is meaningless to the	variable to make it easier for
		instruction order in a loop	instruction order in a loop	computer	humans to understand it
		I know that not all tools	I know that not all tools	I know that the name of a	I can decide where in a
		enable more than one	enable more than one	variable needs to be unique	program to set a variable
		process to be run at once	process to be run at once	I can identify examples of	I can update a variable with a
		I can use an indefinite loop to	I can use an indefinite loop to	information that is variable,	user input
		produce a given outcome	produce a given outcome	for example, a football score	I can use an event in a
		I can use a count-controlled	I can use a count-controlled	during a match	program to update a variable
		loop to produce a given	loop to produce a given	I can identify a variable in an	I can use a variable in a
		outcome	outcome	existing program	conditional statement to
		I can plan a program that	I can plan a program that	I can experiment with the	control the flow of a program
		includes appropriate loops to	includes appropriate loops to	value of an existing variable	I can use the same variable in
		produce a given outcome	produce a given outcome	I can choose a name that	more than one location in a
		I can identify patterns in a	I can identify patterns in a	identifies the role of a	program
		sequence	sequence	variable to make it easier for	Sensing
		I can identify a loop within a	I can identify a loop within a	humans to understand it	Independently:
		program	program		

I can recognise tools that	I can recognise tools that	I can decide where in a	I know that 'variable' as
enable more than one	enable more than one	program to set a variable	something that is changeable
process to be run at the same		I can update a variable with a	I know that a variable can be
time (concurrency)	time (concurrency)	user input	used in a program, e.g.
I can create two or more	I can create two or more	I can use an event in a	'score'
sequences that run at the	sequences that run at the	program to update a variable	I know that a variable has a
same time	same time	I can use a variable in a	name and a value
		conditional statement to	I know the value of a variable
		control the flow of a program	can be used by a program
		I can use the same variable in	I know the value of a variable
		more than one location in a	can be updated
		program	I know that variables can hold
		Sensing	numbers (integers) or letters
		With support:	(strings)
		I know that 'variable' as	I know that a variable can be
		something that is changeable	set as a constant (fixed value)
		I know that a variable can be	I know the importance of
		used in a program, e.g.	setting up a variable at the
		'score'	start of a program
		I know that a variable has a	(initialisation)
		name and a value	I know that there is only one
		I know the value of a variable	value for a variable at any
		can be used by a program	one time
		I know the value of a variable	I know that if you change the
		can be updated	value of a variable, you
		I know that variables can hold	cannot access the previous
		numbers (integers) or letters	value (cannot undo)
		(strings)	I know that if you read a
		I know that a variable can be	variable, the value remains
		set as a constant (fixed value)	I know that the name of a
		I know the importance of	variable is meaningless to the
		setting up a variable at the	computer
		start of a program	I know that the name of a
		(initialisation)	variable needs to be unique
		I know that there is only one	I can identify a variable in an
		value for a variable at any	existing program
		one time	I can experiment with the
		I know that if you change the	value of an existing variable
		value of a variable, you	I can choose a name that
		cannot access the previous	identifies the role of a
		value (cannot undo)	variable to make it more
		I know that if you read a	usable (to humans)
		•	` ,
		variable, the value remains	I can decide where in a
		I know that the name of a	program to set a variable
		variable is meaningless to the	I can update a variable with a
		computer	user input
		I know that the name of a	I can use an event in a
		variable needs to be unique	program to update a variable
		I can identify a variable in an	I can use a variable in a
		existing program	conditional statement to
		I can experiment with the	control the flow of a program
		value of an existing variable	

		I				Lean shaces a name that	Lean use the same variable in
						I can choose a name that	I can use the same variable in
						identifies the role of a	more than one location in a
						variable to make it more	program
						usable (to humans)	
						I can decide where in a	
						program to set a variable	
						I can update a variable with a	
						user input	
						I can use an event in a	
						program to update a variable	
						I can use a variable in a	
						conditional statement to	
						control the flow of a program	
						I can use the same variable in	
						more than one location in a	
						program	
Data and	PSED -	Grouping Data	Grouping Data	Branching databases	Branching databases	Spreadsheets	Spreadsheets
Information	Show resilience and	I know that objects can be	I know different ways to	I know that a branching	I know that a branching	I know questions that can be	I know what an item of data
IIIOIIIIatioii	perseverance in the face of a	counted	count objects	database is an identification	database is used to classify		is in a spreadsheet
		I know that information can	,	tool	,	answered using spreadsheet	I know how the data type
	challenge.		I know that information can		groups of objects.	data	· · ·
	51.6 BS5B A4 : 6.16	be presented	be presented and which ways	I know that there are	I know that a branching	I know what an item of data	determines how a
	ELG – PSED – Managing Self:	I can identify some attributes	are more effective	questions with yes/no	database is an identification	is in a spreadsheet	spreadsheet can process the
	Be confident to try new	of an object	I know that information can	answers	tool	I know that there are	data
	activities and show	I can collect simple data	be presented in different	I know an attribute can to	I know that there are	different software tools to	I know there are different
	independence, resilience and	I can show that collected data	ways	separate objects into two	questions with different	work with data	formats for data
	perseverance in the face of	can be counted	I can collect different types	similarly sized groups	attributes with yes/no	I know that formulas can be	I know that formulas can be
	challenge.	I can describe the properties	data	I know that a data set can be	answers	used to produce calculated	used to produce calculated
		of an object	I can show that collected data	structured using yes/no	I know an attribute can to	data	data
	PD –	I can choose an attribute to	can be counted in different	questions	separate objects into two	I know that formulas work	I know that cells can be
	 Develop their small motor 	group objects by	ways	I know that a well-structured	similarly sized groups	across multiple cells to	linked
	skills so that they can use a	I can group objects to answer	I can describe the different	branching database will	I know that a data set can be	complete the calculation.	I know why data should be
	range of tools competently,	questions	properties of an object	enable you to identify objects	structured using yes/no	I know why data should be	organised in a spreadsheet
	safely and confidently.	which ways are more	I can group objects to answer	using fewer questions	questions	organised in a spreadsheet	I know that a cell's value
	,	effective	questions and explain why I	I know real-world	I know that there are two	I know that a cell's value	automatically updates when
	Maths –		did it that way	applications for branching	levels of a branching	automatically updates when	the value in a linked cell is
	Count objects, actions and		I can explain that objects can	databases	database using AND	the value in a linked cell is	changed
	sounds		be grouped by similarities	I can select an attribute to	I know different real-world	changed.	I can suggest how to
		Pictograms	(attribute)	separate objects into groups	applications for branching	I can collect data	structure my data
		I know that tally marks are a	I can describe a group of	I can choose questions that	databases	I can input data into a cell	I can choose an appropriate
		form of numeral used for	objects (based on	will divide objects into evenly	I can create questions with	I can explain what an items of	format for a cell
		counting	commonality)	sized subgroups	yes/no answers	data is	I can calculate data using a
		I know that these marks can	Pictograms	I can repeatedly create	I can write guestions that will	I can construct a formula in a	formula for each operation
		be put on a tally chart	I know a tally chart is used to	subgroups of objects	divide objects into evenly	spreadsheet with support	I can use functions to create
		I know that a pictogram is a	collect data	I can identify an object using	sized subgroups	I can use existing cells within	new data
		chart or graph which uses	I know that an attribute is a	a branching database	I can repeatedly create	a formula	I can use existing cells within
			word or a phrase that can be	I can retrieve information	subgroups of objects	I can choose suitable ways to	a formula
		pictures to represent data in	·		• .	1	
		a simple way	used to describe an object	from different levels of the	I can use my branching	present spreadsheet data	I can choose suitable ways to
		I know that different objects	such as its colour, size, or	branching database	database to answer questions	I can evaluate results from	present spreadsheet data
		can be grouped	price	Data logging	I can prove my branching	my spreadsheet	I can evaluate results in
		I know we can use a tally	I know objects that have	I know questions that can be	database works	Flat-file databases	comparison to the question
		chart or pictogram to	been grouped by attribute	answered using a table of	I can compare two ways of	I know that data can be	asked
		compare different attributes		data	presenting information	organised in different ways	Flat-file databases

		I know that has dings tall see	To construct (complete) a	I know that data can be	Data logging	Lknow that a committee	I know that tools can be used
		I know that headings tell me what the chart is about	To construct (complete) a given comparison question,	I know that data can be logged over time	Data logging I know questions that can be	I know that a computer program can be used to	I know that tools can be used to select data to answer
		I know that we can present	e.g. are there more balls	I know an input device is a	answered using a table of	organise data	questions
		information using a computer	than balls?	piece of hardware used to	data	I know that tools can be used	I know that different
		I know why some information	I know what headings for	control, or send data to, a	I know that data can be	to select data to answer	computer programs can be
		should not be shared	tally charts and pictograms	computer	logged over time using	questions	used to organise data
		I can count and record data	are	I know that sensors are input	different devices	I know what 'field' and a	I know that ordering data
		using a tally mark	I know a computer program	devices	I know that sensors are input	'record' is in a database	allows us to answer some
		I can enter data onto a	to present information in	I know that a data logger	devices	I know that ordering data	questions
		computer with support	different ways	captures 'data points' from	I know that a sensor can be	allows us to answer some	I know that a value or field
		I can recognise that people,	I know why some information	sensors over time	used as an input device for	questions	involved in an operation is
		animals and objects can be	should not be shared and	I can choose a question that	data collection	I know how 'AND' and 'OR'	called an operand
		described by attributes	what to do if I see something	can be answered using	I know that a data logger	can be used to refine data	I know that operands can be
		I can use a computer to view	that worries me	logged data	captures 'data points' from	selection	used to filter data
		data	I can enter data onto a	I can use a digital device to	sensors over time	I know that computer	I know how 'AND' and 'OR'
		I can use pictograms to	computer	collect data automatically	I can propose a question that	programs can be used to	can be used to refine data
		answer single-attribute	I can organise different data	I can choose how often to	can be answered using	compare data visually	selection
		questions	by attributes	automatically collect data	logged data	I know that we present	I know that computer
			I can use a computer to view	samples	I can use a digital device to	information to communicate	programs can be used to
			data in different formats	I can use a set of logged data	collect data automatically	a message	compare data visually
			I can use pictograms to	to find information	I can choose how often to	I can use a paper form to	I know that we present
			answer questions	I can use a computer	automatically collect data	record information	information to communicate
			I can use a computer to	program to sort data by one	samples	I can create multiplate	a message
			answer comparison questions	attribute	I can use a set of logged data	questions about the same field	I can order, sort and group
			(graphs, tables)		to find information I can draw conclusions from		data
					the data that I have collected	I can ask questions that need more than one attribute to	I can choose different ways to view data
					I can use a computer	answer	I can explain how information
					program to sort data by one	I can choose which attribute	can be recorded.
					attribute	and value to search by to	I can ask questions that need
					I can export information in	answer a given question	more than one attribute to
					different formats	(operands)	answer
					direction formuts	I can choose which attribute	I can choose which attribute
						to sort data by to answer a	and value to search by to
						given question	answer a given question
						I can choose multiple criteria	(operands)
						to search data to answer a	I can choose which attribute
						given question (AND and OR)	to sort data by to answer a
						I can select an appropriate	given question
						graph to visually compare	I can choose multiple criteria
						data with support	to search data to answer a
						I can choose suitable ways to	given question (AND and OR)
						present information to other	I can choose suitable ways to
						people	present information to other
							people and explain why I
							have done that
Creating Media	Creating with materials	Digital Painting	Digital Painting	Animation	Animation (same knowledge	Vector drawing	Vector drawing
	Explore, use and refine a	I know what different	I know that a tool can be	I know that an animation is	as year 3 but progression	I know that a vector drawings	I know that a vector drawing
	variety of artistic effects to	freehand tools do	adjusted to suit my needs	made up of a sequence of	showed through repetition,	are made of simple lines and	comprises separate objects
	express their ideas and	I know that computers can be	I know how to decide when	images	outcome and support)	shapes	I know that each object in a
	feelings.	used to create art	it's appropriate to use each				drawing is in its own layer
			tool and why I need to use it				

- Return to and build on their previous learning, refining ideas and developing their ability to represent them.
- · Create collaboratively, sharing ideas, resources and skills.

ELG - creating with materials Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

I know how to decide when it's appropriate to use each I know how to consider impact of choices made I know how to compare painting using a computer with painting using brushes I can create a picture using freehand tools I can use shape and line tools I can use a range of paint colours I can use the fill tool to colour an enclosed area I can use the undo button to

artwork

correct a mistake

I can combine a range of

tools to create a piece of

Digital Writing I know that a keyboard is used to enter text into a computer I know that the Shift key changes the output of a key I know that text can be changed I know that text can be edited I know that the appearance of text can be changed I know the impact of choices I can use letter, number, and Space keys to enter text into

a computer I can use punctuation and special characters I can select text I can use the Backspace key to remove text I can position the text cursor in a chosen location I can use Undo I can choose options to achieve a desired effect I can change the appearance of text on a computer Digital photography

I know how to consider impact of choices made and how to tailor it to my desired audience I know that artists use computers as a medium and not always physical art mediums

I can use shape and line tools when precision is needed I can use a range of paint colours accurately to suit a purpose I can use the fill tool to colour

small areas I can use the undo and redo button to correct a mistake I can explain why I have chosen a specific tool for the task I need

I can combine a range of tools to create a piece of artwork in an aesthetically pleasing way to suit my desired audience I can explain the difference between electronic art work

and physical art pieces Digital photography

I know that some digital devices can capture images using a range of digital devices I know about how to take a

photograph I know that photographs can be saved and viewed later and how to view them again once I have taken the photo I know there are choices when composing my photograph I know features of 'good' photographs I know how a photograph

could be improved I know the effect of light on a I can add and edit text photograph I can organise text and add I know that photographs can images in a page layout be change after they have I can add and remove images been taken and that an app I can move resize and rotate can do this images

I know that a capturing device needs to be in a fixed position

I know that smaller movements create smoother animation I know the need for

consistency in working I know the impact of adding other media to an animation I know that a project must be exported so it can be shared I can set up the work area with an awareness of what

will be captured I can plan a simple animation using a storyboard I can capture an image I can use the onion skinning tool to review subject

position I can move a subject between captures

I can remove frame to improve an animation I can add media to enhance an animation I can review a completed

project Desktop publishing (DTP)

I know how text and images can be used together to convey information I know that landscape and portrait as two different page orientations I know how different layouts can suit different purposes

I know that there are I know how text and images different font styles and can be used together to effects and these change the convey information appearance of text I know that a placeholder is a I know the benefits of using a character, word, or string of DTP application characters that temporarily I can show that page takes the place of the final orientation can be changed data

I know how different layouts can suit different purposes I know that DTP pages can be structured with placeholders

I know that an animation is I know that each element of a vector drawing is called an made up of a sequence of object images I know that a capturing I know that each object in a

device needs to be in a fixed drawing is in its own layer position I know that zooming in on a I know that smaller vector image helps improve movements create smoother complexity

animation I know that objects can be I know the need for modified in groups consistency in working I know how alignment and I know the impact of adding size guides can help create a more consistent drawing other media to an animation I know that a project must be I know that vector drawings exported so it can be shared have a specific purpose to I can set up the work area meet their target audience with an awareness of what I can add an object to a

will be captured vector drawing I can plan a complex I can select one object or choices made multiple animation using a storyboard I can capture an image objects I can use the onion skinning I can delete objects

position I can move a subject accurately between captures I can review a captured sequence of frames as an animation

tool to review subject

I can remove frame to improve an animation I can add media to enhance an animation

I can review a completed project and explain what when well and what needs to be improved

Desktop publishing (DTP)

I know the features of video as a visual media format I know you need a device to record a video I know the purpose of a storyboard I know that filming techniques can be used to create different effects I know that videos can be edited on a recording device or on a computer I know videos can be improved through and reshooting or editing

I can move objects between

I can duplicate objects using

the layers of a drawing

selected objects

copy and paste

I can modify objects

for a given purpose

Video production

I can reposition objects

I can combine options to

I can create a vector drawing

achieve a desired effect

I can group and ungroup

and the layers move independently I know that vector images can be scaled without impact on

I know that objects can be modified in groups and grouping makes it easier to work with

I know how alignment and size guides can help create a more consistent drawing I know that vector drawings have a specific purpose to meet their target audience I can add an object to a vector drawing I can select one object or

choices made multiple objects I can delete objects

I can move objects between the layers of a drawing I can group and ungroup selected objects I can duplicate objects using copy and paste

I can modify objects I can reposition objects I can combine options to

achieve a desired effect I can create a vector drawing for a given purpose

Video production

I know that different videos have different features I know which devices can and can't record video I know the purpose of a storyboard is to plan what I want to record I know that filming

techniques can be used to create different effects I know the limitations of editing video on a recording device

I know videos can be improved through and reshooting or editing and know the correct tools to make edits to my video

I know that some digital devices can capture images using a camera I know about how to take a photograph with support I know that photographs can be saved and viewed later I know I need to think before I take a photograph and choose my subject carefully I know I may need to take another photograph to improve it I know that photographs can be change after they have been taken I know that some images I see are not accurate I can capture a digital image I can view photographs on a digital device with support I can decide which photographs to keep I can hold the camera still to take a clear photograph I can improve a photograph by retaking it I can edit a photo on an app once it has been taken with support

I know that some images are not accurate and begin to identify them I can capture a digital image I can take photographs in both landscape and portrait format I can view photographs on a digital device I can decide which photographs to keep and explain why I can hold the camera still to take a clear photograph I can use zoom to change the composition of a photograph I can consider lighting before taking a photograph I can improve a photograph by retaking it I can edit a photo on an app once it has been taken Making music I know that computers can be used to play sounds of different instruments I know that the same pattern can be represented in different ways I know playing music on instruments with making music on a computer are different I can experiment with musical patterns on a computer I can experiment with different sounds on a computer I can use a computer to create a musical pattern I can use a computer to compose a rhythm and a melody on a given theme I can use a computer to play the same music in different ways (e.g. tempo) I can evaluate a musical composition created on a computer I can improve a musical

composition created on a

computer

I can choose fonts and apply effects to text I can review a document Audio production I know that sound can be recorded I know that an output device is a piece of hardware that is controlled by outputs from a computer I know that an input device is a piece of hardware used to control, or send data to, a computer I know that an input device is needed to record sound I know that output devices are needed to play audio I know that recorded audio can be stored on a computer I know that audio can be edited I know the results of editing choices made I can record sound using a computer I can save a digital recording as a file I can open a digital recording from a file I can play recorded audio I can import audio into a project I can delete a section of audio I can change the volume of tracks in a project I can discuss the features of a digital recording I like Photo editing I know that applications can change the whole digital image I know that applications can change part of a digital image I know that applications to add to the composition of a digital image I know that the rotate feature allows you to turn an image

in a clockwise or counter

clockwise direction

I know how different font styles and effects are used for particular purposes I know the benefits of using a DTP application and how these are used in everyday I can add text to a placeholder I can organise text and image placeholders in a page layout I can add and remove images to and from placeholders I can edit text in a placeholder I can move resize and rotate images I can choose fonts and apply effects to text depending on the context of my audience I can review a document and make improvements Audio production I know that sound can be recorded on different devices I know that an input device is needed to record sound I know that output devices are needed to play audio I know that recorded audio can be stored on a computer, tablet or other devices which can store information I know that sound can be represented visually as a waveform I know that audio can be edited I know that audio can be layered so that multiple sounds can be played at the same time I know the results of editing choices made I can record sound using a computer I can use editing tools to arrange sections of audio I can play recorded audio I can import audio into a project I can delete a section of audio

I know the need to regularly review and reflect on a video project I know that projects need to be exported to be shared I can explain that video is a visual media format I can use different camera angles I can use pan, tilt and zoom I can identify features of a video recording device or application I can combine filming techniques for a given purpose I can determine what scenes will convey your idea I can decide what changes I will make when editing I can choose to reshoot a scene or improve later through editing I can make edits to my video and improve the final outcome I can store, retrieve, and export my recording to a computer 3D Modelling I know that 3D models can be created on a computer I know that a 3D environment can be viewed from different perspectives I know that digital tools can be used to manipulate 3D objects I know how placeholders can create holes in 3D objects I know that artefacts can be broken down into a collection of 3D objects I can add 3D shapes to a project I can resize object in three dimensions I can lift and lower 3D objects I can recolour a 3D object I can rotate objects in three dimensions

I know the need to regularly review and reflect on a video project I know that projects need to be exported to be shared I can compare features in different videos I can use different camera angles I can use pan, tilt and zoom I can suggest filming techniques for a given purpose I can combine filming techniques I can determine what scenes will convey your idea referring back to my storyboard I can decide what changes I will make when editing I can choose to reshoot a scene or improve later through editing I can use split, trim and crop to edit a video 3D Modelling I know that 3D models can be created on a computer I know that a 3D environment can be viewed from different perspectives I know that digital tools can be used to manipulate 3D obiects I know how placeholders can create holes in 3D objects I know that artefacts can be broken down into a collection of 3D objects I can position 3D shapes relative to one another I can use digital tools to modify 3D objects I can combine objects to create a 3D digital model I can use digital tools to accurately size 3D objects I can construct my own 3D model which reflects a real world object Web page creation

		I know that the crop tool cuts	I can change the volume of	I can accurately size 3D	I know the relationship
		down an image	tracks in a project	models	between HTML and visual
		I know how to change colours	I can discuss and suggest	I can use digital tools to	display
		of a digital image	improvement to a digital	accurately size 3D objects	I know that web pages can
		I know how to select part of a	recording	I can construct a 3D model	contain different media types
		digital image	Photo editing	which reflects a real world	I know we need to consider
		I know if I see an image that	I know that applications can	object	the ownership and use of
		worries me not to share it	change a digital image	Web page creation	images (copyright) before we
		and report it	I know that you may only	I know the relationship	use them
		I can recognise that digital	want to change part of a	between HTML and visual	I know that web pages are
		images can be change so they	digital image and	display	written by people
		are not real	professionals will need to	I know that web pages can	I know that a website is a set
		I can rotate an image	choose why for a particular	contain different media types	of hyperlinked web pages
		I can consider the impact of	purpose	I know we need to consider	I know components of a web
		changes made on the quality	I know that when you flip an	the ownership and use of	page layout
		of the image	object, the object turns over,	images (copyright) before we	I know we need to preview
		I can add text to a digital	either vertically or	use them	pages (different screens /
		image	horizontally, so that the	I know that web pages are	devices) to ensure everything
		I can crop a digital image	object is now a mirror image	written by people	looks the same
		I can change colours of a	I know that the crop tool cuts	I know that a website is a set	I know we need a navigation
		digital image	down an image	of hyperlinked web pages	path
		I can copy and paste to	I know what filters are	I know components of a web	I know the implications of
		change the composition of a	I know what effects mean	page layout	linking to content owned by
		digital image	when editing a digital image	I know we need to preview	others
		I can talk about fake images	I know how to select part of a	pages (different screens /	I can review an existing
		around me	digital image	devices) to ensure everything	website (navigation bars,
			I know that cloning is used to	looks the same	header)
			retouch a digital image.	I know we need a navigation	I can create a new blank web
			I know the clone tool is used	path	page
			to copy one part of an image	I know the implications of	I can add text to a web page
			over another part	linking to content owned by	I can set the style of text on a
			I can recognise that digital	others	web page
			images can be manipulated	I can explore a website	I can embed media in a web
			I can recognise that digital	I can create a new blank web	page
			images can be changed for	page	I can change the appearance
			different purposes	I can add text to a web page	of text
			I can flip an image	I can set the style of text on a	I can add web pages to a
			I can choose the most	web page	website
			appropriate tool for a	I can embed media in a web	I can preview a web page
			particular purpose	page	(different screen sizes)
			I can consider the impact of	I can change the appearance	I can insert hyperlinks
			changes made on the quality	of text	between pages
			of the image	I can add web pages to a	I can insert hyperlinks to another site
			I can add text to a digital	website	another site
			image I can add different filters to a	I can preview a web page (different screen sizes)	
			digital image	I can insert hyperlinks	
			I can crop a digital image	between pages	
			I can use clone, copy, and	I can insert hyperlinks to	
			paste to change the	another site	
			composition of a digital	another site	
			image		
			iiiugc		