

<u>Computing Long Term Plan</u>

2023-2024

		<u>Year 1</u>		
<u>Year 1</u>	Lesson	Success Criteria	Progression Links	<u>Key Vocabulary</u>
<u>Year 1</u> Online Safety	Lesson Objectives Dbjectives Lesson 1; • To log in safely and understand why that is important. • To create an avatar and to understand what this is and how it is used. • To be able to create a picture and add their own name to it. • To start to understand the idea of 'ownership' of creative work. • To save work to the My Work area and understand that this is private space. Lesson 2; • To learn how to find saved work in the Online Work area.	 <u>Success Criteria</u> <u>Lesson 1;</u> Children can log in to Purple Mash using their own login. Children have created their own avatar and understand why they are used. Children can add their name to a picture they created on the computer. Children are beginning to develop an understanding of ownership of work online. Children can save work into the My Work folder in Purple Mash and understand that this is a private saving space just for their work. Lesson 2: Children can find their saved work in the Online Work area of Purple Mash. Children can find messages that their teacher has left for them on Purple 	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><image/><section-header><image/><section-header><image/><section-header><image/><section-header><section-header><section-header><section-header><section-header><image/><section-header><image/><section-header><image/><section-header><image/><section-header><image/><section-header><image/><section-header><image/><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	 Alert avatar button device file name icon log in log out menu my work area notification password private

 To learn about what the 	Children can search Purple Mash to	
teacher has access to in	find resources	
Purple Mash.		
 To learn how to see 	Lesson 3;	
messages left by the teacher	Children will be able to use the	
on their work.	different types of topic templates in the	
 To learn how to search 	Topics section confidently.	
Purple Mash to find	 Children will be confident with the 	
resources.	functionality of the icons in the topic	
	templates.	
<u>Lesson 3;</u>	 Children will know how to use the 	
 To become familiar with the 	different icons and writing cues to add	
types of resources available	pictures and text to their work.	
in the Topics section.		
 To become more familiar 		
with the icons used in the	Lesson 4;	
section	 Children have explored the Tools 	
To start to add nictures and	section on Purple Mash and become	
text to work	familiar with some of the key icons:	
	Save, Print, Open and New.	
	 Children have explored the Games 	
Lesson 4;	section and looked at Table Toons (2x	
IO explore the roots area of	tables).	
Purple Mash and to learn	 Children can log out of Purple Mash 	
about the common cons	when they have finished using it and	
Drint Open New	know why that is important.	
• To explore the Cames area		
on Purnle Mash (extension)		
• To understand the		
importance of logging out		
when they have finished		
mon droy have innoned.		

Year 1	Lesson	<u>Success Criteria</u>	Progression Links	Key Vocabulary
	<u>Objectives</u>			
Grouping & Sorting	Lesson 1: • To begin to think logically about the steps of a process. • To sort items using a range of criteria <u>Lesson 2:</u> • To sort items on the computer using the 'Grouping' activities in Purple Mash. • To bring together logical thinking and the use of technology. • To introduce the term 'algorithm' to describe logically following a process.	 Lesson 1; Children can sort various items offline using a variety of criteria. Children can follow a logical process to categorise objects. Lesson 2; Children have used Purple Mash activities to sort various items online using a variety of criteria. Children have experienced logical sorting using technology where items either fit a category or do not. 	<image/> <image/> <section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	 criteria groups sort algorithm

Pictograms	 <u>Lesson 1;</u> To understand that data can be represented in picture format. <u>Lesson 2;</u> To contribute to a class pictogram. <u>Lesson 3;</u> To use a pictogram to record the results of an experiment. 	 <u>Lesson 1;</u> Children can discuss and illustrate the transport used to travel to school. Children can contribute to the collection of class data. Children have used these illustrations to create a simple pictogram. <u>Lesson 2;</u> Children can contribute to a class pictogram. Children can discuss what the pictogram shows. 	 Grouping and Sorting to criteria Sorting data according to criteria Unit 1.3 - Pictograms Use of 2Calculate to collect data and produce a variety of graphs Sorting and interrogating data in a graph form using 2Graph Presenting data through line graphs 	 collect data record results compare data pictogram title
		Lesson 3; • Children can collect data from rolling a die 20 times and recording the results. • Children can represent the results as a pictogram.	Parabases All units • Bractive searching and sorting of information • Callaborative creation of a class database using 2linvestigate • Surface, oppointing and class variants oppointing and pasting variants • Callaborative creation of a class • Organising data • Creating graphs and charts • Organising data • Creating graphs and charts	

	Lesson	Success Criteria	Progression Links	Key Vocabulary
	<u>Objectives</u>			
<u>Year 1</u> Animated	Lesson 1; • To understand the differences between traditional books and e- books. • To explore the tools of 2Create a Story's My Simple Story level	Lesson 1; Children know the difference between a traditional book and an e-book. • Children can use the different drawing tools to create a picture on the page. • Children can add text to a page.	Exploring Purple Mash General use of Purple Mash Design: avatar creation Paint Projects: use of the simple paint tools Creating Pictures 2 Paint a effects, collage effects	 animation background clipart gallery e-book edit font sound
Storybooks	• To save the page they have created.	 Children can open previously saved work. Children can add an animation to a 		 sound effect text
	 Lesson 2: To add animation to a picture. To play the pages created so far. To save the additional changes and overwrite the file. Lesson 3: To add a sound effect to a picture. To add a voice recording to the picture. To add created music to the picture 	 Children can add an animation to a page. Children can play the pages created. Children can save changes and overwrite the file. Lesson 3: Children can add a sound to the page. Children can add voice recording to the page. Children can create music for a page. Lesson 4: Children can add a background to the page. Children can use the additional drawing tools on My Story mode 	Animation using 2 Animation A discrete a stop motion animation using 2 Animation backgrounds	
	Lesson 4;	• Children can change the font style and size.		

 To add a background to the 	Lesson 5;	
story.	Children can use the copy and paste	
 To demonstrate a good 	function to add more pages to their	
understanding of all the tools	animated e-book.	
they have used in 2Create a	Children can share their e-books on a	
Story and use these	class story book display board.	
successfully to create their		
own story		
own otory.		
lesson 5:		
• To use the copy and paste		
footure to croote additional		
To continue and complete		
• To continue and complete		
an animated story.		
• To create a class display		
board of the story books		
created by the class.		

	Lesson Objectives	Success Criteria	Progression Links	Key Vocabulary
<u>Year 1</u> Maze Explorers	Lesson Objectives Lesson 1; • To understand the functionality of the basic direction keys in Challenges 1 and 2. • To be able to use the direction keys to complete the challenges successfully. Lesson 2; • To understand the functionality of the basic direction keys in Challenges 3 and 4. • To understand how to create and debug a set of instructions (algorithm). Lesson 3; • To use the additional direction keys as part of their algorithm. • To understand how to change and extend the algorithm list. • To create a longer algorithm for an activity.	Success Criteria Lesson 1; • Children know how to use the direction keys in 2Go to move forwards, backwards, left and right. • Children know how to add a unit of measurement to the direction in 2Go Challenge 2. • Children know how to undo their last move. • Children know how to undo their last move. • Children know how to move their character back to the starting point. Lesson 2; • Children can use diagonal direction keys to move the characters in the right direction. • Children know how to create a simple algorithm. • Children know how to debug their algorithm. • Children can use the additional direction keys to create a new algorithm. • Children can use the additional direction keys to create a new algorithm.	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	 algorithm challenge command direction instruction left and right route undo unit
	Lesson 4;	Lesson 4;		

 To provide an opportunity 	Children can change the background	
for the children to set	images in their chosen challenge and	
challenges for each other.	save their new challenge.	
To provide an opportunity	Children have tried each other's	
for the teacher to add these	challenges	
challenges to a display board		
for the class to the		
for the class to try.		

	Lesson Objectives	Success Criteria	Progression Links	Key Vocabulary
<u>Year 1</u>	Lesson 1; • To understand what instructions are. • To predict what will happen when instructions are followed. • To understand that	 <u>Lesson 1;</u> Children can give and follow instructions. Children can draw symbols to represent instructions. Children can arrange code blocks to create a set of instructions. 	Lego Builders Alporitims Logical decision making Sequencing Instructions Following instructions Algorithms Collision detection Timers Object types Buttons Debugging	 action code event algorithm command execute background
Coding	computer programs work by following instructions called code.	<u>Lesson 2;</u> • Children can create a program using	 Coding Flowcharts Repeat Code, test, debug process 	debuginput
	Lesson 2; • To use code to make a computer program. • To understand what objects and actions are. Lesson 3; • To understand what an event is.	 Children can use object and action code blocks. <u>Lesson 3;</u> Children can create a simple program using code blocks. Children can use event, object and action code blocks. 	 Coding Uncession and Abstraction Friction and Private Strategy Sindiating a Physical System Distribution Strategy Sindiating A strategy	
	 To use an event to control an object. <u>Lesson 4;</u> To understand what an event is. To begin to understand how code executes when a program is run. <u>Lesson 5;</u> 	 <u>Lesson 4;</u> Children can create a simple program using code blocks. Children can use event, object and action code blocks. Children can notice when their code executes when their program is run. <u>Lesson 5;</u> Children can edit a scene by adding, deleting and moving objects. 	 Using Functions Flowcharts and Control Simulations User Input Debugging skills User Vision User Vision	

 To understand what 	 Children can change the size of 	
backgrounds and objects are.	objects using the attributes (properties)	
• To understand how to use	table.	
the scale attribute (property)		
	Laccon 6:	
	<u>Lesson o,</u>	
Lesson o;	• Children can create a design plan for	
 To plan a computer 	their Free Code Scene program.	
program.	 Children can use code to make the 	
 To make a computer 	program they have designed work.	
program.		

	Lesson	<u>Success Criteria</u>	Progression Links	Key Vocabulary
Year 1	<u>Objectives</u>			
<u>year i</u> Spreadsheets	Lesson 1; • To understand what a spreadsheet looks like. • To be able to navigate around a spread sheet and enter data. • To learn new vocabulary related to spreadsheets. Lesson 2; • To add clipart images to a spreadsheet. • To use the 'move cell' and 'lock' tools. Lesson 3; • To use the 'speak' and 'count' tools in 2Calculate to count items.	 Lesson 1: Children can navigate around a spreadsheet. Children can explain what rows and columns are. Children can save and open sheets. Children can enter data into cells. Lesson 2: Children can open the Image toolbox and find and add clipart. Children can use the 'move cell' tool so that images can be dragged around the spreadsheet. Children can use the 'lock' tool to prevent changes to cells. Lesson 3: Children can add the count tool to count items. Children can add the speak tool so that the items are counted out loud. Children can use a spreadsheet to help work out a fair way to share items (Extension) 	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	 button calculation cell clipart column count tool data delete image lock cell move cell row spreadsheet value

Technology	Lesson 1; • To find and understand	 Lesson 1; Children understand what is meant by 	Unit 1.9 Unit 1.9 - Technology	computertechnology
Outside of	examples of where	 'technology'. Children have considered types of 		
School	technology is used in the local community. <u>Lesson 2;</u> • To record examples of technology outside school.	 Children have considered types of technology used in school and out of school. Lesson 2: Children have recorded 4 examples of where technology is used away from school. 	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	

<u>Year 2/3</u>				
	Lesson Objectives	Success Criteria	Progression Links	Key Vocabulary
<u>Year 2</u> Coding	Lesson 1; • To understand what an algorithm is. • To create a computer program using an algorithm. Lesson 2; • To create a program using a given design. • To understand the collision detection event. Lesson 3; • To understand that	Lesson 1; • Children can explain that an algorithm is a set of instructions. • Children can describe the algorithms they created. • Children can explain that for the computer to make something happen, it needs to follow clear instructions. Lesson 2; • Children can plan an algorithm that includes collision detection. • Children can create a program using collision detection.	Code Logical decision 0 Signet sand actions - Algorithm 0 Signet sand actions - Signet sand actions 0 Design view: Planning - Following instructions 0 Logical decision rocessing - Following instructions 0 - Code - Organic sand activation 0 - Code - Code, test, debug process 0 - Code, test, debug process - Code-test activation 0 - Code, test, debug process - Not-based coding or the structure	 action algorithm background bug button click events collision detector command debug event execute
	 To understand that algorithms follow a sequence. To design an algorithm that follows a timed sequence. <u>Lesson 4:</u> To understand that different objects have different attributes (properties). To understand what different events do in code. <u>Lesson 5:</u> To create a program using a given design. 	 Children read blocks of code and predict what will happen when it is run. Lesson 3; Children can create a program that uses a timer-after command. Children can explain what the timerafter command does in their program. Children can predict what will happen in a program that includes a timer-after command. Lesson 4; 	 Repeat Until and If/ELSE statements Number Variables Efficient Coding Efficient Coding Fiction and Abstraction Friction and Concatenation Text Variables and Concatenation Coding Structures Program an external device Program an external controller using input sand outputs Code, test, debug Code, test, debug Using Functions Development from taxt-base coding Maintaining a mental map. Debugging skills 	

 • To understand the function	Children een ereste e computer	
of buttons in a program.	program that includes different object	
	types.	
Lesson 6;	 Children can modify the attributes 	
 To know what debugging 	(properties) of an object.	
means.	 Children can use different events in 	
 To understand the need to 	their program to make objects move.	
test and debug a program		
repeatedly.	Lesson 5;	
 To debug simple programs. 	 Children can create a computer 	
	program that includes a button object. •	
	Children can explain what a button does	
	in their program.	
	 Children can modify the attributes 	
	(properties) of a button to fit their	
	program design.	
	Lesson 6;	
	Children can explain what debug	
	(debugging) means.	
	Children can use a design document to	
	start debugging a program	
	Children can debug simple programs	

Vear 3	Lesson 1;	Lesson 1;	Coding Coding Maze Explorers	
7 Cui J	 To review previous coding 	 Children can read and explain a 	Introducing block coding Objects and actions Exact fields used Coding a 'turtle' Creating programs using making	 action
	knowledge.	flowchart	Events (Click event, Sequencing Visual use of the Logo sound output) instructions programming language.	 alert
	 To understand what a 	 Children can use a flowchart to create 	Design view: Planning Following instructions Program logic and structure.	 algorithm
Codina	flowchart is and how	a computer program.	Coding Questioning All units	 background
eeang	flowcharts are used in	 Children can create a computer 	Collision detection Timers Solution	• bua
	computer programming.	program that uses click events and	Object types Saving, opening and Buttons dediting work	 button
		timers.	Sebugging Sharing work	 click event
	Lesson 2;		Unit Copying and pasting	 code
	 To understand that there 	Lesson 2;	Processing Modelling selection Modelling selection	• colligion
	are different types of timers.	 Children can create a program that 	on a binary model	detection
	• To be able to select the	uses a timer-after command		
	right type of timer for a	 Children can create a program that 	Code, test, debug process Text-based coding Sequencing and	• command
	purpose.	uses a timer-every command	IF statements Outrie understanding animation in logical steps of coding structures Statement	• aebug
		Children understand there can be	Number Variables	
	Lesson 3;	different ways to solve a problem.	Coding 51 Coding 51 Coding 53 External Devices 53 External Devices	
	• To understand how to use		 Simulating a Physical System Decomposition and Abstraction Program an external controller using inputs and outputs 	
	the repeat command.	Lesson 3;	Friction and Functions Monitor real world conditions Introducing Strings Text Variables and Concatenation	
		Children understand how the turtle		
	Lesson 4;	object moves.	Unit Coding Using Functions Using Functions Development from Use of 2Code to	
	• To use coding knowledge to	Children can use the repeat command	Flowcharts and Control Simulations Maintaining a mental understand binary conversion algorithms.	
	create a range of programs.	with an object.	map Debugging skills	
	• To understand the	Children can create a computer		
	importance of nesting.	program that includes use of the repeat		
		command.		
	Lesson 5&6;			
	• To design and create an	Lesson 4;		
	interactive scene.	Children can create computer		
		programs using prior knowledge.		
		 Children can run, test and debug their 		
		programs.		
		Children can consider nesting when		
		debugging their programs.		

	Lesson 5&6	
	Children con use the attributes	
	• Children can use the attributes	
	(properties) table to set the attributes of	
	objects.	
	 Children can plan their scene and 	
	code before they create their program. •	
	Children can confidently make several	
	different things hannen in a program	

	Lesson Objectives	Success Criteria	Progression Links	Key Vocabulary
<u>Year 2</u>	Lesson 1; • To review the work done in 2Calculate in year 1.	Lesson 1; • Children can explain what rows and columns are in a spreadsheet.	 Spreadsheets Introduce 2Calculate Spreadsheet navigation Adding images Vocab: cell, column, row 	block graphcellcolumn
Spreadsheets	 To revise spreadsheet related vocabulary. To use some 2Calculate tools that were introduced in year 1. Lesson 2: To use copying cutting and 	 Children can open, save and edit a spreadsheet. Children can add images from the image toolbox and allocate them a value. Children can add the count tool to count items. 	Unit 2.3 Unit 2.3 - Spreadsheets Unit 2.3 - Spreadsheets Picepresentation in 2.5 pin tool 3. Spin tool 4. Use of 2.5 period and 2.5 pin tool 3. Spin tool Call references Unit 2.3 - Spreadsheets Diatabases (2.0 uestion) Databases (2.0	 copy count tool data drag equals equals tool label
	 pasting shortcuts in 2Calculate. To use 2Calculate totalling tools. To use 2Calculate to solve 	 Lesson 2; Children can use copying, cutting and pasting to help make spreadsheets. Children can use tools in a spreadsheet to automatically total rows. 	Spreadsheets Formula wizard Cell formating Timer, random number and spin buttons Budget planner sheet Line graphs Spreadsheets Detabases	 row speak tool table total
	a simple puzzle.	 and columns. Children can use a spreadsheet to solve a mathematical puzzle. 	Count toil C	
	• To explore the capabilities of a spreadsheet in adding up coins to match the prices of objects.	<u>Lesson 3;</u> • Children can use images in a spreadsheet. • Children can work out how much they	 models Probability using random functionality Budgeting Event planning Calculations Calculations Modelling and poblem solving Modelling and poblem solving Advanced formulae Charts and graphs 	
	Lesson 4; • To add and edit data in a table layout.	need to pay using coins by using a spreadsheet to help calculate.		

<u>Year 3</u> <u>Spreadsheets</u>	 To use the data to manually create a block graph. <u>Lesson 1</u>; To add and edit data in a table layout. To find out how spreadsheet programs can automatically create graphs from data. <u>Lesson 2</u>; To introduce the 'more than', 'less than' and 'equals' tools. 	 Children can create a table of data on a spreadsheet. Children can use the data to create a block graph manually. <u>Lesson 1:</u> Children can create a table of data on a spreadsheet. Children can use a spreadsheet program to automatically create charts and graphs from data. <u>Lesson 2:</u> Children can use the 'more than', 'less than' and 'equals' tools to compare different numbers and help to work out solutions to calculations. Children can use the 'spin' tool to 	Spreadhects Pictograms 9 Introduce 2 calculate 9 Spreadheet navigation 9 What is data? 9 Vocabr cell, column, row 9 Norading images 9 Vocabr cell, column, row 9 Spreadheet navigation 9 Vocabr cell, column, row 9 Vocabr cell, column, row 9 Spreadheet navigation 9 Opying and pasting 10 Copying and pasting 10 Totaling tools 10 Totaling tools 10 Totaling tools 10 Pictograms (Zount) 10 Diatabases (Zinvestigate) 10 Unit 3.3 - Spreadsheets 10 Unit 3.3 - Spreadsheets	 advanced mode bar graph equals data cell address rows columns less than more than, less than, equal to
	 To introduce the 'spin' tool and show how it can be used to count through times tables. <u>Lesson 3;</u> To introduce the Advanced mode of 2Calculate. To learn about describing cells using their addresses. 	 solutions to calculations. Children can use the 'spin' tool to count through times tables. <u>Lesson 3</u>: Children can describe a cell location in a spreadsheet using the notation of a letter for the column followed by a number for the row. Children can find specified locations in a spreadsheet. 	 Spreadhech Formula wiza Cal formating There, random number and spin buttons Budget planner sheet Budget planner sheet Budget planner sheet Court tol Spreadsheet Court tol Sensen Court tol <li< td=""><td> more man, less than, equal to tool pie chart quiz tool spin tool spreadsheet table </td></li<>	 more man, less than, equal to tool pie chart quiz tool spin tool spreadsheet table

	Lesson Objectives	Success Criteria	Progression Links	Key Vocabulary
<u>Year 2/3</u>	Lesson 1; • To introduce typing terminology.	Lesson 1; • Children understand the names of the fingers.	Contraining Purple Mash General use of Purple Mash General use of Purple Mash Simple text entry Use of a writing template	 posture keys space bar
<u>Touch Typing</u>	 To understand the correct way to sit at the keyboard. To learn how to use the home, top and bottom row keys. <u>Lesson 2</u>: To practice and improve typing for home, bottom, and top rows. <u>Lesson 3</u>: To practice the keys typed with the left hand. <u>Lesson 4</u>: To practice the keys typed with the right hand. 	 Children understand what is meant by the home, bottom, and top rows. Children have developed the ability to touch type the home, bottom, and top rows. Lesson 2: Children can use two hands to type the letters on the keyboard. Lesson 3: Children can touch type using the left hand. Lesson 4: Children can touch type using the right hand. 	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	• typing

	Lesson Objectives	Success Criteria	Progression Links	Key Vocabulary
<u>Year 2/3</u>	Lesson 1; • To show that the information provided on	 <u>Lesson 1;</u> Children understand that the information on pictograms cannot be used to answer more complicated. 	Grouping and Sorting • Sorting data according to criteria	 binary tree data database
Questioning	beyond answering simple questions	questions.	• Use of 2Calculate to collect data and produce a graph	 field pictogram question record
	Lesson 2; • To use yes/no questions to separate information.	• Children have used a range of yes/no questions to separate different items.	Spreadshoets Use of 2Calculate to collect data and produce a variety of graphs	searchsort
	Lesson 3; • To construct a binary tree to separate different items.	 Children understand what is meant by a binary tree. Children have designed a binary tree to sort pictures of children. 	Spreadshoets Presenting data through line graphs	
	<u>Lesson 4;</u> • Use 2Question (a binary tree) to answer questions	<u>Lesson 4;</u> • Children understand that questions are limited to 'yes' and 'no' in a binary	Detabases All units • Effective searching and sorting of information • Use of 2Dos • Collaborative creation of a class database using 2Investigate • Saving, opening and editing work • Sharing work • Sharing work	
	<u>Lesson 5;</u> • To use a database to answer more complex	tree. • Children understand that the user cannot use 2Question to find out answers to more complicated	Copying and pasting Investigating different question types in 2Quiz Spreadsheets with MS Excel or Google Sheets Organising data Creating graphs and charts Creating graphs and charts	
	search questions. • To use the Search tool to find information.	questions.Children have matched 2Simple item pictures to names using a binary tree.		
		<u>Lesson 5;</u> • Children understand what is meant by a database.		

		• Children have used a database to answer simple and more complex search questions.		
	Lesson Objectives	Success Criteria	Progression Links	<u>Key Vocabulary</u>
<u>Year 2/3</u>	Lesson 1; • To think about the different methods of communication.	Lesson 1; • Children can list a range of different ways to communicate. • Children can use 2Connect to highlight	Online Safety and PM Safe logins Concept of privacy Concept of ownership	 address book attachment BCC CC
<u>Email</u>	 Lesson 2; To open and respond to an email. To write an email to someone from an address book. Lesson 3; To learn how to use email safely. Lesson 4; To learn how to use email safely. Lesson 5; To add an attachment to an email. 	 Children can use 2Connect to highlight the strengths and weaknesses of each method. Extension: Children can order the various types of communication that have been used through history. <u>Lesson 2</u>: Children can open an email and respond to it. Children have sent emails to other children in the class. Extension: Children can use the search option in the address book to find a classmate when sending an email. <u>Lesson 3</u>: Children have written rules about how to stay safe using email. Children have contributed to classmates' rules 	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	 CC communication compose email inbox password personal information save to draft trusted contact
	• To explore a simulated email scenario.	Extension: Children understand the importance of draft. <u>Lesson 4;</u>		

	 Children have created a quiz about email safety which explores scenarios that they could come across in the future. Extension: Children create title screens for their quizzes explaining what 	
	the quiz is about, and how to play it. <u>Lesson 5;</u> • Children can attach work to an email. • Children know what CC means and how to use it.	
	 <u>Lesson 6;</u> Children can read and respond to a series of email communications. Children can attach files appropriately and use email communication to explore ideas. Extension: Children know why the terms CC and BCC are used Children understand when to use CC or BCC 	

	Lesson Objectives	Success Criteria	Progression Links	Key Vocabulary
Year 2/3 Presenting Ideas	Lesson 1; To explore how a story can be presented in different ways. Lesson 2; • To make a quiz about a story or class topic. Lesson 3; • To make a fact file on a non-fiction topic. Lesson 4; • To make a presentation to the class.	 Lesson 1: Children have examined a traditional tale presented as a mind map, as a quiz, as an e-book and as a fact file. Children know that digital content can be represented in many forms. Lesson 2: Children have made a quiz about a story using 2Quiz. Children can talk about their work and make improvements to solutions based on feedback received. Lesson 3: Children have extracted information from a 2Connect file to make a publisher fact file on a non-fiction topic. Children have added an appropriate photo. Children know that data can be structured in tables to make it useful. 	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	 E-book fact file fiction mind map node non-fiction presentation quiz
		• Children can use a variety of software to manipulate and present digital content and information.		

	Children can collect, organise and	
	present data and information in digital	
	content.	
	Children can create digital content to	
	achieve a given goal by combining	
	software packages.	

<u>Year 4/5/6</u>				
	Lesson Objectives	Success Criteria	Progression Links	<u>Key Vocabulary</u>
Year 4 Coding	Lesson Objectives Lesson 1: • To review coding vocabulary and knowledge. • To create a simple computer program. Lesson 2: • To begin to understand selection in computer programming. • To understand how an IF statement works. Lesson 3: To understand the Repeat until command. • To begin to understand selection in computer programming. • To understand how an IF/ELSE statement works. Lesson 4: To understand the Repeat until command. • To begin to understand selection in computer programming.	Success CriteriaLesson 1;• Children can explore different objecttypes in 2Code.• Children can use a background andobjects to create a scene.• Children can plan an algorithm for theirscene and use 2Code to program it.Lesson 2;• Children can create a program thatincludes an IF statement.• Children can interpret a flowchart thatdepicts an IF statement.• Children can make use of the X and Yattributes (properties) of objects in theircoding.• Children can create a program thatincludes an IF statement.Lesson 4;• Children can read code that includesrepeat until and IF/ ELSE and explainhow it works.• Children can create a program thatincludes an IF/ ELSE statement.	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	 action alert algorithm background button code blocks command debug design execute
		depicts an IF/ ELSE statement.		

-		
 To understand how an 		
IF/ELSE statement works.	Lesson 5;	
	Children can explain what a variable is	
Larcon 5:	in programming	
 To understand what a 	Children can create and use variables	
variable is in programming.	when programming.	
 To use a number variable. 		
	Lesson 6.	
lesson 6:	Children can read code that includes	
<u>Lesson o,</u>	report until and IE/ELCE and available	
 To review vocabulary and 	repeat until and IF/ ELSE and explain	
concepts learnt in Year 4	how it works.	
Coding.	 Children can create a program that 	
 To create a playable game. 	includes and IF/ ELSE statement.	
	 Children can interpret a flowchart that 	
	denicts an IE/ ELSE statement	

<u>Year 5</u> Coding	Lesson 1; • To review existing coding knowledge. • To begin to be able to simplify code. • To create a playable game.	 <u>Lesson 1;</u> Children can use simplified code to make their programming more efficient. Children can use variables in their code. Children can create a simple playable 	Coding Introducing block coding Digiests and actions Events (Click event, sound cutput) Design View: Planning Coding a truster Design View: Planning Coding a truster Coding a truster Design View: Planning Coding a truster Distructions Coding a truster Coding a truster Distructions Coding a tru	 abstraction action algorithm concatenation debug decomposition
	 Lesson 2; To understand what a simulation is. To program a simulation using 2Code. Lesson 3; To know what decomposition and abstraction are in Computer Science. To take a real-life situation, decompose it and think about the level of abstraction. To use decomposition to make a plan of a real-life situation. Lesson 4; To understand how to use friction in code. To begin to understand what a function is and how functions work in code. 	game. <u>Lesson 2;</u> • Children can plan an algorithm modelling the sequence of traffic lights. • Children can select the right images to reflect the simulation they are making. • Children can use their plan to program the simulation to work in 2Code. <u>Lesson 3;</u> • Children can make good attempts to break down their task into smaller achievable steps. • Children recognise the need to start coding at a basic level of abstraction to remove superfluous details from their program that do not contribute to the aim of the task. <u>Lesson 4;</u> • Children can create a program which represents a physical system. • Children can create and use functions in their code to make their programming more efficient.	<complex-block><list-item><list-item><list-item><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><complex-block><section-header><complex-block><section-header><complex-block></complex-block></section-header></complex-block></section-header></complex-block></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></list-item></list-item></list-item></complex-block>	 efficient flowchart

<u>Lesson 5;</u> • To understand what the different variable types are and how they are used differently. • To understand how to create a string.	 Lesson 5; Children can create and use strings in programming. Children can set/change variable values appropriately. Children know some ways that text variables can be used in coding. 	
Lesson 6; • To begin to explore text variables when coding. • To understand what concatenation is and how it works.	 Lesson 6; Children can create a string and use it in their program. Children can use strings to produce a range of outputs in their program. 	

Year 6	Lesson 1&2; • To design a playable game with a timer and a score.	 Lesson 1&2; Children can plan a program which includes a timer and a score. Children can follow their plane to be a score. 	Coding Introducing block coding Objects and actions Events (Click event, sound output) Executing a program Design view Planning Coding a trutte Sequencing instructions Events (Click event, sound output) Executing a program Design view Planning	 action algorithm command
<u>Coding</u>	 To plan and use selection and variables. To understand how the launch command works. 	 Children can follow their plans to create a program. Children can debug when things do not run as expected. 	Coding Agorithms Collision detection Timers Object types Buttons Debugging Collision detection Timers Object types Buttons Debugging Collision detection Solution Collision detection Solution Collision detection Solution Collision detection Solution Collision detection Solution Collision detection Solution Collision detection Solution Collision detection Solution Collision detection Solution Collision detection Collision detection Solution Collision detection Collision detection Solution Collision detection Solution Collision detection Collision detection Collision detection Collision detection Collision detection Solution Collision detection Collision detection Collision detection Collision detection Collision detection Collision Collision detection Collision detecti	 co-ordinates event decomposition execute/run
	<u>Lesson 3;</u> • To use functions and understand why they are	<u>Lesson 3;</u> • Children can create a program that makes use of functions.	 Flowcharts Timers Repeat Code, test, debug process Branching Databases Logical decision processing Modeling selection on a binary model • Sharing work Sharing work Sharing work Sharing work 	eventdebugflowchart
	useful. To understand how functions are created and called. 	 Children can create a program that uses multiple functions with the code arranged in tabs. Children can explain how their code 	 Coding Code, test, debug process IF statements Repeat Until and IF/ ELSE Number Variables 	
	<u>Lesson 4;</u> • To use flowcharts to test and debug a program.	executes when their program is run. Lesson 4; • Children can follow flowcharts to	Coding Enficient Coding Simulating a Physical System Decomposition and Abstraction Friction and Functions Introducing Strings Text Variables and Concatenation External Devices Program an external device Program and external	
	• To create a simulation of a room in which devices can be controlled.	 create and debug code. Children can create flowcharts for procedures. Children can be creative with the way 	 Text Adventures Development from text-based coding Maintaining a mental map. Debugging skills 	
	<u>Lesson 5;</u> • To understand the different options of generating user	they code to generate novel visual effects.		
	 input in 2Code. To understand how user input can be used in a program. 	 Lesson 5; Children can code programs that take text input from the user and use this in the program. 		
	Lesson 6;	• Children can attribute variables to user input.		

• To understand how 2Code	Children are aware of the need to code	
can be used to make a text-	for all possibilities when using user	
	in a the possibilities when using user	
based adventure game.	input.	
	Lesson 6;	
	 Children can follow through the code 	
	of how a text adventure can be	
	programmed in 2Code	
	Children can design their own text-	
	based adventure game based on one	
	they have played.	
	 Children can adapt an existing text 	
	adventure so it reflects their own ideas.	

	Lesson Objectives	Success Criteria	Progression Links	<u>Key Vocabulary</u>
Year 4	<u>Lesson 1;</u> • To explore how the numbers entered into cells can be set to either currency	<u>Lesson 1;</u> • Children can use the number formatting tools within 2Calculate to appropriately format numbers.	Spreadsheets Pictograms All units • Introduce 2Calculate • What is data? • Use of 2Dos • Adding images • Vocab: cell, column, row • Representing data • Saving, opening and editing work	 average spreadsheet formula column
<u>Spreadsheets</u>	or decimal. • To explore the use of the display of decimal places. • To find out how to add	• Children can add a formula to a cell to automatically make a calculation in that cell.	Spreadsheets Copying and pasting Totalling tools Addition Table layout Block graph	budgetchart
	formulae to a cell. Lesson 2;	Lesson 2; • Children can use the timer, random number and spin button tools.	Spreadsheets • Pie charts and Bar graphs Boolean comparison tools (c=>) • Spin tool • Advanced mode • Cell references	
	• To explore how tools can be combined to use 2Calculate to make number	• Children can combine tools to make fun ways to explore number.	Unit 4.3 - Spreadsheets	
	games.	Lesson 3;		
	timer, random number and spin button tools.	 Children can use a series of data in a spreadsheet to create a line graph. Children can use a line graph to find out when the temperature in the 	Spreadsheets Converting measures Count tool Formulae Variables in formulae Event planning Databases Data persentation in 2Investigate Creating and interrogating data Use of filter, sort and search	
	Lesson 3; • To use the line graphing tool in 2Calculate with	playground will reach 20°C.	 Spreadsheets Spreadsheets for computational modes Probability using random functionality Budgeting Event planning Spreadsheets with MS Excel or Google Sheets Calculations Modeling and problem solving Organising Data Advanced formulae Charts and graphs 	
	 appropriate data. To interpret a line graph to estimate values between data readings. 	 Children can make practical use of a spreadsheet to help them plan actions. Children can use the currency formatting in 2Calculate. 		
	Lesson 4; • To use the currency formatting tool in 2Calculate.	<u>Lesson 5;</u> • Children can allocate values to images and use these to explore place value.		

To use 2Calculate to	Children can use a spreadsheet made	
create a model of a real-life	in 2Calculate to check their	
situation.	understanding of a mathematical	
	concept.	
Lesson 5;		
• To use the functions of		
allocating value to images in		
2Calculate to make a		
resource to teach place		
value.		

Year 5 Spreadsheets	Lesson 1; • To use formulae within a spreadsheet to convert measurements of length and distance. Lesson 2; • To use the count tool to answer hypotheses about common letters in use. Lesson 3; • To use a spreadsheet to model a real-life problem. • To use formulae to calculate area and perimeter of shapes. Lesson 4; • To create formulae that use text variables. Lesson 5; • To use a spreadsheet to help plan a school cake sale.	 Lesson 1; Children can create a formula in a spreadsheet to convert m to cm. Children can apply this to creating a spreadsheet that converts miles to km and vice versa. Lesson 2; Children can use a spreadsheet to work out which letters appear most often. Children can use the 'how many' tool. Lesson 3; Children can use a spreadsheet to work out the area and perimeter of rectangles. Children can use these calculations to solve a real-life problem. Lesson 4; Children can create simple formulae that use different variables. Children can create a formula that will work out how many days there are in x number of weeks or years. Lesson 5; Children can use a spreadsheet to model a real-life situation and come up with solutions that can be practically applied. 	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	 rows spreadsheet columns data format formula advance mode format formula bar formula wizard 'How Many?' Tool totalling tool variable
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<u>Year 6</u>	Lesson 1;	Lesson 1;	Spreadsheets Introduce 2Cakulate	• rows
	investigate the probability of	probability of the results of throwing	Spreadsheet navigation Adding images	• duita
	the results of throwing many	many dice	Vocab: cell, column, row	• spreadsneet
<u>Spreadsheets</u>	dice	Children can create a spreadsheet to	Con Spreadshasts Con Questioning	
•	dice.	answer a mathematical question	Copying and pasting Tatalling tools Pictograms (2Count)	• Tormula
	Loggon 2:	relating to probability	Addition Table layout Databases (2Investigate)	
	• To use a spreadsheat to	Children can take conv and naste	• Block graph	
	• To use a spreadsheet to	shortcuts	Spreadsheets Graphing All units	
	final prices in a sale. Create a	Children can problem solve using the	 He charts and Bar graphs Boolean comparison tools (<=>) Data representation in Use of 2Dos 	
	formula to boln work out the	count tool	Spin tool ZGraph Advanced mode Use software to Saving, opening and investigate data edition work	
	prices of items in the cale		Cell references Sharing work	
	prices of items in the sale.	Loggon 2:	Copying and • Copying and • Formula wizard pasting	
		<u>Lesson 2,</u>	Cell formatting Timer, random number and spin buttons Mouse, keyboard	
	Lesson 3;	• Children can create a machine to help	Budget partner sheet and device skills Line graphs	
	• To use a spreadsheet to	work out the price of different items in a		
	plan now to spend pocket	• Children can use the formula wizard to	Converting measures Count tool Count tool Count tool Count tool	
	money and the effect of	croate formulae	Formulae Variables in formulae Event planning See of filter, sort and search	
	saving money.	• Children can use a spreadsheet to		
		solvo a problom	Unit Spreadsheets with MS	
	Lesson 4;	Solve a problem.	6.3 Unit 6.3 - Calculations Calculations	
	• To use a spreadsheet to	Lagran 2	Spreadsheets - Organising Data Advanced formulae	
	plan a school charity day to	<u>Lesson 5,</u>	Clats and graphs	
	maximise the money donated	Children can use a spreadsheet to model a real life situation and some up		
	to charity.	model a real-life situation and come up		
		with solutions.		
		Children can make practical use of a		
		spreadsheet to help plan actions.		
		Lesson 4&b		
		Children can use a spreadsheet to		
		model a real-life situation and come up		
		with solutions that can be applied to real		
		life.		

	Lesson Objectives	Success Criteria	Progression Links	<u>Key Vocabulary</u>
Year 4/5 Writing for different audiences	Lesson 1; • To explore how font size and style can affect the impact of a text. Lesson 2&3; • To use a simulated scenario to produce a news report. Lesson 4&5; • To use a simulated scenario to write for a community campaign.	 Lesson 1; Children can look at and discuss a variety of written material where the font size and type are tailored to the purpose of the text. Children can use text formatting to make a piece of writing fit for its audience and purpose. Lesson 2&3; Children can role-play the job of a journalist in a newsroom. Children can interpret a variety of incoming communications and use these to build up the details of a story. Children can use the incoming information to write their own newspaper report. Lesson 4 &5; Children can use these ideas to write a persuasive letter or poster as part of the campaign. Children can assess their texts using criteria to judge their suitability for the intended audience. 	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	 campaign format font genre opinion reporter viewpoint

	Lesson 1; • To identify the purpose of	Lesson 1; • Children understand how a blog can	Online Safety and PM Safe logins Concept of privacy	approvalarchive
<u>Yea</u> r 6	writing a blog.	be used as an informative text.	Concept of ownership are surrounded by and its The need to logout purpose	 blog
	• To identify the features of	Children understand the key features	1	 blog post
	successful blog writing.	of a blog.	Conline Safety	 collaborative
Blogging			Approval process Search engine Digital footprint Digital footprint	 commenting
Diogging	Lesson 2;	Lesson 2;	Emails is multions Emails and insert of communications	 vloo
	• To plan the theme and	 Children can work collaboratively to 		e viog
	content for a blog.	plan a blog.	Online Safety Ocommunication methods Shared blog Reliability of information Periodia Safety Communications Cyberbullying Reliability of information Problems	
	Lesson 3;	Lesson 3;	and spoof websites Attachments Emotional effects Emotional simulations	
	To understand how to write	Children can create a blog or blog post	↓ 	
	a blog and a blog post.	with a specific purpose.	Image: Online Safety Online Effective Searching All units 42 • Phishing 47 • Reliable sources	
	• To consider the effect upon	 Children understand that the way in 	Digital footprint Search algorithms - impact Malware and viruses on what you see Saving, opening and	
	the audience of changing the	which information is presented has an	Plagiarism editing work	
	visual properties of the blog.	impact upon the audience.	Online Safety Online Safety Online Safety	
	To understand how to		Responsibility to Image others when sharing manipulation Planiarism Planiarism	
	contribute to an existing blog.	Lesson 4;	Sources of support Citing sources SMART rules Searching Citing sources Citing sources and device skills	
		Children can post comments and blog	Sharing passwords Reliability	
	Lesson 4:	posts to an existing class blog.	Online Safety	
	• To understand the	 Children understand the approval 	others when sharing Sources of support	
	importance of commenting	process that their posts go through and	Screen time Being a bystander	
	on blogs.	demonstrate an awareness of the issues		
	To peer-assess blogs	surrounding inappropriate posts and		
	against the agreed success	cyberbullying.		
	criteria.	Children can assess the effectiveness		
	To understand how and	and impact of a blog.		
	why blog posts and	Children understand that content		
	comments are approved by	included in their blog carefully considers		
	the teacher.	the end user.		
	1			

	Lesson Objectives	Success Criteria	Progression Links	Key Vocabulary
<u>Year 4/5</u> Databases	Lesson Objectives Lesson 1; • To learn how to search for information in a database. Lesson 2; • To contribute to a class database. Lesson 3&4; • To create a database around a chosen topic.	Success CriteriaLesson 1;• Children understand the different ways to search a database.• Children can search a database to answer questions correctly.Lesson 2;• Children can design an avatar for a class database.• Children can successfully enter information into a class database.Lesson 3&4;• Children can create their own database on a chosen topic.• Children can add records to their	<u>Progression Links</u>	 Key Vocabulary arrange avatar chart collaborative data database field group record database report search sort statistics
		 Children know what a database field is and can correctly add field information. Children understand how to word questions so that they can be effectively answered using a search of their database. 		

<u>Year 6</u>	Lesson 1; • To find out what a text- based adventure game is and to explore an example made	Lesson 1; • Children can describe what a text adventure is. • Children can map out a story-based	 text-based adventure debug sprite
<u>Text Adventure</u>	in 2Create a Story.To use 2Connect to plan a 'Choose your own Adventure' type story.	 text adventure. Children can use 2Connect to record their ideas. Extension: Children can turn a simple story with 2 or 3 levels of decision 	 selection function flow of control step through
	Lesson 2;	making into a logical design.	
	• To use 2Connect plans for		
	a story adventure to make the adventure using 2Create a	• Children can use the full functionality	
	Story.	of 2Create a Story Adventure mode to	
		create, test and debug using their plan.	
	Lesson 3;	 Children can split their adventure- 	
	• To read and understand	game design into appropriate sections to	
	given code for a text	facilitate creating it.	
	auventure garne.	Lesson 3.	
	Lesson 4;	Children can explain the features and	
	• To debug a text adventure.	purpose of code within a given text	
	 To independently design 	adventure.	
	and implement	Children are able to step through each	
	improvements to a text	line of code and follow the flow of	
	adventure game.	execution.	
		<u>Lesson 4;</u> • Children can make logical attempts to debug more complex code involving a combination of functions, variables and a loop.	

		• Children can suggest and implement ideas to further develop the program.		
	Lesson Objectives	Success Criteria	Progression Links	<u>Key Vocabulary</u>
Year 4/5 Animation	Lesson 1; • To decide what makes a good, animated film or cartoon and discuss favourite animations. • To learn how animations are created by hand. • To find out how 2Animate animations can be created in a similar way using technology. Lesson 2; • To learn about onion skinning in animation. • To add backgrounds and sounds to animations. Lesson 3; • Introducing 'stop motion' animation. • To share animation the class blog.	 <u>Lesson 1;</u> Children have put together a simple animation using paper to create a flick book. Children understand animation frames. Children have made a simple animation using 2Animate. <u>Lesson 2;</u> Children know what the Onion Skin tool does in animation. Children can use the Onion Skin tool to create an animated image. Children can use backgrounds and sounds to make more complex and imaginative animations. <u>Lesson 3;</u> Children know what 'stop motion' animation is and how it is created. Children have used ideas from existing 'stop motion' films to recreate their own animation. Children have shared their animations and commented on each other's work using display boards and blogs in Purple Mash 	<section-header><section-header><section-header><section-header><section-header><complex-block><complex-block><complex-block></complex-block></complex-block></complex-block></section-header></section-header></section-header></section-header></section-header>	 animation frames per second frame onion skinning pause stop motion

<u>Year 4/5</u> Effective Searching	Lesson 1; • To locate information on the search results page. <u>Lesson 2;</u> • To use search effectively to find out information. <u>Lesson 3;</u>	 <u>Lesson 1;</u> Children can structure search queries to locate specific information. <u>Lesson 2;</u> Children have used search to answer a series of questions. Children have written search questions for a friend to solve. 	 Online Safety and Exploring Purple Mash Safe logins Using Purple Mash search functionality Using Purple Mash search functionality Sharing to a display board Sharing online Digital footprint Digital footprint Reliability of information and spoof websites Accessed to the spoor of the spoor of	 balanced view easter egg internet key words reliability results page search engine
	• To assess whether an information source is true and reliable.	Lesson 3; • Children can analyse the contents of a web page for clues about the credibility of the information.	<page-header><text><section-header><section-header><complex-block><complex-block></complex-block></complex-block></section-header></section-header></text></page-header>	

	Lesson 1;	Lesson 1;	Grouping and Sorting Rictograms	 audience
	• To create a picture-based	Children have used the 2DIY activities	Sorting data according to criteria on 2Quiz Collect data in picture	 audio
Year 6	quiz for young children.	to create a picture-based quiz.	format	 case sensitive
		 Children have considered the 		 clone
	Lesson 2&3;	audience's ability level and interests	Questioning Presenting Ideas	 cloze
Quizzing	• To learn how to use the	when setting the quiz.	Enquiry into different data handling tools Recognising that digital content can be represented in many	 nreview
Quizzing	question types within 20uiz.	Children have shared their guiz and	Use of questioning to forms	
	4	responded to feedback.	Presenting ideas in 2Quiz	• quiz
	Lesson A:		(Int) Branching Databases	
	• To ovalore the grommer	Lesson 2&3	Understanding structure of YES/NO understanding structure of YES/NO understanding database	
		Children understand the different		
	quizzes.	question types within 20uiz	Sequencing	
		Children have ideas about what sort of	Unit Writing for Different Audiences logical	
	Lesson 5;	• Children have lideas about what sold of	Considering understanding thinking, and abilities of an audience debugging	
	 To make a quiz that 	questions are best suited to the different		
	requires the player to search	question types.		
	a database.	Children have used 2Quiz to make and	Unit Databases • Creating and searching a 5.5 Game Creator All units	
		share a science quiz (or another	database for information • Ureaning game environment • Use of 2Dos	
	Lesson 6;	subject).	Wording of questions to be effectively answered by building of a willing of a will will will will will will will wi	
	• To make a quiz to test your	 Children have considered the 	searching a database chailenge for addience and editing work	
	teachers or parents.	audience's ability level and interests	/ Unit Copying and	
		when setting the quiz.	6.7 Dunit 6.7 - Ouizzing	
		Children have shared their quiz with	and device skills	
		peers.		
		Children have given and responded to		
		feedback		
		Lesson 4:		
		Children have tried out the different		
		types of grammar games.		
		Children have chosen an appropriate		
		tool to make their own grammar		
		game(s).		

	 <u>Lesson 5;</u> Children have used a 2Investigate quiz to answer quiz questions. Children have designed their own quiz based on one of the 2Investigate example databases. 	
	<u>Lesson 6;</u> • Children have used their knowledge of quiz types to create a quiz show quiz based on a curriculum area.	

	Lesson Objectives	Success Criteria	Progression Links	Key Vocabulary
Year 4/5 Game Creator	Lesson 1; • To Introduce the 2DIY 3D tool. • To begin planning a game. Lesson 2; • To design the game environment. Lesson 3; • To design the game quest to make it a playable game. Lesson 4; • To finish and share the game. Lesson 5; • To self and peer-evaluate.	 Lesson 1: Children can review and analyse a computer game. Children can describe some of the elements that make a successful game. Children can begin the process of designing their own game. Lesson 2: Children can design the setting for their game so that it fits with the selected theme. Children can upload images or use the drawing tools to create the walls, floor, and roof. Lesson 3: Children can design characters for their game. Children can decide upon, and change, the animations and sounds that the characters make. Lesson 4: Children can make their game more unique by selecting the appropriate options to maximise the playability. Children can write informative instructions for their game so that other people can play it. 	 Concrete Alexa Strangenus (Concrete Ale	 animation image texture computer game instruction perspective customise interactive evaluation playability

<u>Year 6</u>	Lesson 1;	Lesson 5; • Children can evaluate my their own and peers' games to help improve their design for the future. Lesson 1;	Coding Lego Builders Maze Explorers	• base 2
Binary	 To examine how whole numbers are used as the basis for representing all types of data in digital systems. To recognise that digital systems represent all types of data using number codes that ultimately are patterns of 1s and 0s (called binary digits, which is why they are called digital systems). To understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics. <u>Lesson 2;</u> To examine how whole numbers are used as the 	 Children can explain how all data in a computer is saved in the computer memory in a binary format. Children can explain that binary uses only the integers 0 and 1. Children can relate 0 to an 'off' switch and 1 to and 'on' switch. Lesson 2; Children can count up from 0 in binary using visual aids if needed. Children can relate bits to computer storage. Lesson 3; Children can convert numbers to binary using the division by two method. Children can check their own answers using the converter tool. 	 Introducing block coding Algorithms Objects and actions Sevents (Click event, sound output) Executing a program Design view: Planning Algorithms Design view: Planning Plowing listructions Polowing instructions Polowing instructions Program logic and structure Waal use of the Logo programming language. Program logic and structure Waal use of the Logo programming language. Program logic and structure Waal use of the Logo programming language. Porgram logic and structure Waal use of the Logo programming language. Porgram logic and structure Waal use of the Logo program logic and structure Object types Dobject types Dobject	 bit base 10 digit integer transistor switch

basis for representing all	Larcon A:	
turnes of data in digital	<u>LESSUIT</u> , <u>Children con molecuso of our visit la</u>	
types of data in digital	Children can make use of a variable	
systems.	set to 0 or 1 to control game states.	
 To recognise that the 		
numbers 0, 1, 2 and 3 could		
be represented by the		
patterns of two binary digits		
of 00, 01, 10 and 11		
 To represent whole 		
numbers in binary, for		
example counting in binary		
from zero to 15, or writing a		
friend's age in binary.		
Lesson 3;		
 To examine how whole 		
numbers are used as the		
basis for representing all		
types of data in digital		
systems.		
 To represent whole 		
numbers in binary, for		
example counting in binary		
from zero to 15, or writing a		
friend's age in binary		
• To explore how division by		
two can be used as a		
technique to determine the		
hinany representation of any		
whole number by collecting		
romainder terma		

Lesson 4;		
To examine how whole		
numbers are used as the		
basis for representing all		
types of data in digital		
systems.		
• To represent the state of an		
object in a game as active or		
inactive using the respective		
binary values of 1 or 0.		