	CODING AND COMPUTIONAL THINKING	SPREADSHEETS	INTERNET AND EMAIL	ART AND DESIGN
	Grouping & Sorting, Lego Builders, Maze Explorers	**Spreadsheets**	**Online Safety**	**Animated Story Books**
Gateway Skills & Knowledge	• Know how to log in to Purple Mash	• Understand what a spreadsheet is. • Able to open up a spreadsheet on a computing programme • Know how to log in to Purple Mash	• Understand that when online, there are rules to follow • Know how to log in to Purple Mash.	• Know how to log in to Purple Mash
Mastery Skills and Computing Knowledge	• Understand what coding means in computing. • Create unambiguous instructions like those required by a computer. • Build one- and two-step instructions using the printable code cards. • Use Design Mode to add and change backgrounds and characters. • Use the Properties table to change the look of the objects. • Design a scene for a program. • Use code blocks to make the characters move automatically when the green Play button is clicked. • Add an additional character who moves when clicked. • Explore the When Key and When Swiped commands • Use the Stop button to make characters stop when the background is clicked. • Explore a method to code interactivity between objects. • Use Collision Detection to make objects perform actions. • Use the sound property.	• Add images to a spreadsheet and use the image toolbox. • Use the 'speak' and 'count' tools in 2Calculate to count items.	• Login safely. • Understand 'ownership' of their creative work. • Understand how to find saved work in the Online Work area and find teacher comments. • Understand how to search Purple Mash to find resources. • Become familiar with the types of resources available in the Topics section. • Become more familiar with the icons used in the resources in the Topic section. • Start to add pictures and text to work. • Explore the Tools section of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New. • Explore the Games section on Purple Mash. • Understand the importance of logging out when they have finished.	• Continue a previously saved story. • Add animation to a story. • Add sound to a story including voice recording and music the children have created. • Work on a more complex story including adding backgrounds and copying and pasting pages. • Use additional features to enhance their stories. • Share their e-books on a class display board.
Key Vocabulary & Terminology	Sort, Criteria, Instruction, Algorithm, Computer, Program, Debug, Direction, Rewind, Left Turn, Right turn, Challenge, Forward, Arrow, Backwards, Undo	Arrow keys, Cells, Lock Tool, Backspace Key, Clipart, Move Cell Tool, Cursor, Count Tool, Speak Tool, Rows, Columns, Delete Key, Spreadsheet, Image Toolbox	Log In, Username, Password, Avatar, My Work, Topics, Log Out, Save, Notification, Tools	Animation, Font, Sound Effect, E-Book, File, Display Board
Computing across the curriculum	• Maths • DT	• Maths		• Art • DT
Significant People, Places & Events inc. local area				
Culture, inclusivity and developing a love of computing		• Business and Enterprise Week	• Internet Safety Day	

ASSESSMENT OUTCOMES – YEAR 1 (A)

Computing	
Assessment Outcomes	**KS1** • **Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions** • **Create and debug simple programs** • **Use logical reasoning to predict the behaviour of simple programs** • **Use technology purposefully to create, organise, store, manipulate and retrieve digital content** • **Recognise common uses of information technology beyond school** • **Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.**

Coding and Computational Thinking	Spreadsheets	Internet and Email	Art and Design
• can explain what coding means • can explain what a block of code is • can read through combined blocks of code • can make a background using Design Mode • can add characters using Design Mode • **can design a simple program and then create the program using 2Code** • **can write a program that controls how a character will move** • **can make a character move when clicked** • can use collision detection to make objects interact • can program a sound to play when objects collide.	• **can navigate around a spreadsheet** • **can explain what rows and columns are** • **can save and open sheets** • **can enter data into cells** • can open the Image toolbox and find and add clipart • can use the 'move cell' tool so that images can be dragged around the spreadsheet • can use the 'lock' tool to prevent changes to cells • can give images a value that the spreadsheet can use to count them • can add the count tool to count items • can add the speak tool so that the items are counted out loud. • can use a spreadsheet to help work out a fair way to share items	• **can login to Purple Mash using their own login** • have created their own avatar and understand why it is useful • can add their name to a picture they created on the computer • **can save work into the My Work folder in Purple Mash and understand that this is a private saving space just for their work** • **can find their saved work in the Online Work area of Purple Mash** • can find messages that their teacher has left on Purple Mash • can search Purple Mash to find resources • will know how to use the different icons to add pictures and text to their work • have explored the Tools section on Purple Mash and become familiar with some of the key icons, save, print, open and new • have explored the Games section and looked at Table Toons (2x tables) • **can logout of Purple Mash when they have finished using it and know why that is important**	• know the difference between a traditional book and an e-book • **can use the different drawing tools to create a picture on the page** • can add text to a page and change the colour, **font and size of the text** • **can save their work** • **can open work that they saved in my last lesson** • can add an animation to their picture • can play the pages they have created • can save their changes and overwrite the file • can add a sound to the page • can add their own voice recording to the page • can create their own music and add it to their page • can add a background to the page • can copy and paste a page in the book • can enhance the features of their story book by adding additional pages and animations • can share their storybook on a class story book display board

	MUSIC	DATABASES AND GRAPHING	WRITING AND PRESENTING	COMMUNICATION AND NETWORKS
		Pictograms		**Technology Outside School**
Gateway Skills & Knowledge		• Understand what data means. • Understand what a pictogram is.		• Understand what the term 'technology' means.
Mastery Skills and Computing Knowledge		• Understand that data can be represented in picture format. • Contribute to a class pictogram. • Use a pictogram to record the results of an experiment.		• Record examples of technology outside school.
Key Vocabulary & Terminology		• Pictogram, Data, Collate		• Technology
Computing across the curriculum		• Science		
Significant People, Places & Events inc. local area				
Culture, inclusivity and developing a love of computing		• Science week		

Computing			
Assessment Outcomes	**KS1** • **Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions** • **Create and debug simple programs** • **Use logical reasoning to predict the behaviour of simple programs** • **Use technology purposefully to create, organise, store, manipulate and retrieve digital content** • **Recognise common uses of information technology beyond school** • **Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.**		
Music	**Databases and Graphing**	**Writing and Presenting**	**Communication and Networks**
	• can discuss and illustrate the transport used to travel to school • can contribute to the collection of class data • have used these illustrations to create a simple pictogram • can contribute to a class pictogram • **can discuss what the pictogram shows** • can collect data from rolling a die 20 times and recording the results • **can represent the results as a pictogram**		• **understand what is meant by 'technology'** • have considered types of technology used in school and out of school • have recorded 4 examples of where technology is used away from school

	CODING AND COMPUTIONAL THINKING	SPREADSHEETS	INTERNET AND EMAIL	ART AND DESIGN
	Coding	**Spreadsheets**	**Online Safety, Effective Searching**	**Creating Pictures**
Gateway Skills & Knowledge	• Understand what coding means in computing. • Build one- and two-step instructions using the printable code cards. • Use Design Mode to add and change backgrounds and characters. • Design a scene for a program. • Use code blocks to make the characters move automatically when the green Play button is clicked. • Add an additional character who moves when clicked. • Explore the When Key and When Swiped commands •Use the Stop button to make characters stop when the background is clicked. • Use Collision Detection to make objects perform actions. • Use the sound property.	• Add images to a spreadsheet and use the image toolbox. • Use the 'speak' and 'count' tools in 2Calculate to count items.	• Login safely. • Understand how to find saved work in the Online Work area and find teacher comments. • Understand how to search Purple Mash to find resources. • Understand the importance of logging out when they have finished.	• Continue a previously saved story. • Understand how to log in to Purple Mash. • Know how to find and open 2Paint A Picture.
Mastery Skills and Computing Knowledge	• Understand what an algorithm is. • Create a computer program using simple algorithms. • Compare the Turtle and Character objects. • Use the button object. • Understand how use the Repeat command. • Understand how to use the Timer command. • Know what debugging means. • Understand the need to test and debug a program repeatedly. • Debug simple programs. • Create programs using different kinds of objects whose behaviours are limited to specific actions. • Predict what the objects will do in other programs, based on their knowledge of what the object is capable of. • Discuss how logic helped them understand that they could only predict specific actions, as that is what the objects were limited to. • Use all the coding knowledge, they have learned throughout their programming lessons to create a more complex program that tells a story.	• Use Copying and Pasting Totalling tools • Use a spreadsheet to add amounts • Create a table and block graph	• Know how to refine searches using the Search tool. • Know how to share work electronically using the display boards. • Use digital technology to share work on Purple Mash to communicate and connect with others locally. • Have some knowledge and understanding about sharing more globally on the Internet • Begin to understand that Email can be used as a communication tool using 2Respond simulations. • Understand how we talk to others when they aren't there in front of us. • Open and send simple online communications in the form of email. • Understand that information put online leaves a digital footprint or trail. • Begin to think critically about the information they leave online. • Identify the steps that can be taken to keep personal data and hardware secure. • Understand the terminology associated with searching. • Gain a better understanding about searching on the Internet.	• Begin to use 2Paint A Picture. • Look at the impressionist style of art (Monet, Degas, Renoir). • Recreate pointillist art and look at the work of pointillist artists such as Seurat. • Look at the work of Piet Mondrian and recreate it using the Lines template. • Look at the work of William Morris and recreate it using the Patterns template. • Explore surrealism and eCollage
Key Vocabulary & Terminology	Action, Character, Command, Algorithm, Code Block, Debug/Debugging, Bug, Code Design, Design Mode, Input, Object, Properties, Repeat, Scale, Timer, When clicked, When Key	Backspace Key, Count, Tool, Move Cell Tool, Copy and Paste, Delete Key, Rows, Columns, Equals Tool. Speak Tool, Cells, Image Toolbox, Spreadsheet, Lock Tool	Search, Display Board, Internet, Sharing, Email, Attachment, Digital Footprint, Search Engine	Impressionism, Palette, Share, Pointillism, Surrealism, Template
Computing across the curriculum	• Maths	• Maths		• Art
Significant People, Places & Events inc. local area				• Monet • Degas • Renoir • Seurat • Piet Mondrian • William Morris
Culture, inclusivity and developing a love of computing		• Business and Enterprise Week	• Internet Safety Day	

ASSESSMENT OUTCOMES – YEAR 2 (A)

Computing			
Assessment Outcomes	**KS1** • **Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions** • **Create and debug simple programs** • **Use logical reasoning to predict the behaviour of simple programs** • **Use technology purposefully to create, organise, store, manipulate and retrieve digital content** • **Recognise common uses of information technology beyond school** • **Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.**		
Coding and Computational Thinking	**Spreadsheets**	**Internet and Email**	**Art and Design**
• **can explain that an algorithm is a set of instructions** • can describe the algorithms they created • can explain that for the computer to make something happen, it needs to follow clear instructions • can include a button in their programs • **can explain what debug (debugging) means** • have a clear idea of how to use a design document to start debugging a program • **can debug simple programs** • can explain why it is important to save their work after each functioning iteration of the program they are making • **can create a computer program using different objects** • can plan and use algorithms in programs successfully to achieve the desired a result • can code a program using a variety of objects, actions, events and outputs successfully	• can explain what rows and columns are in a spreadsheet • can open, save and edit a spreadsheet • can add images from the image • can add the count tool to count items • can use copying a pasting to help make spreadsheets • can use tools in a spreadsheet to automatically total rows and columns • **can use a spreadsheet to solve a mathematical puzzle** • **can create a table of data on a spreadsheet** • **can use the data to create a block graph manually**	• can use the search facility to refine searches on Purple Mash by year group and subject • can share the work they have created to a display board • beginning to understand how things can be shared electronically for others to see both on Purple Mash and the Internet • **understand how 2Repond can teach about how to use email** • **can open and send an email to a 2Respond character** • **can explain what a digital footprint is** • can give examples of things that they wouldn't want to be in their digital footprint • can recall the meaning of key internet terms • can identify the basic parts of a web search engine search page • can "read" a web search results page • can search for answers to a quiz on the internet • have created a leaflet to consolidate their knowledge of effective Internet searching • **can use 2Paint a Picture to create art based upon this style** • can use 2Paint a Picture to create art by repeating patterns in a variety of ways • can combine more than one effect in 2Paint a Picture to enhance their patterns • **can use the eCollage function in 2Paint a Picture to create surrealist art using drawing and clipart.**	

	MUSIC	DATABASES AND GRAPHING	WRITING AND PRESENTING	COMMUNICATION AND NETWORKS
	Making Music	**Questioning**	**Presenting Ideas**	
Gateway Skills & Knowledge	• Know how to log in and open Purple Mash. • Know how to open 2Sequence on Purple Mash.	• Understand that data can be represented in picture format. • Contribute to a class pictogram. • Use a pictogram to record the results of an experiment.	• Understand what a quiz is and what they are used for. • Know what a fact file is. • Understand what a presentation is. • Know how to create a presentation.	
Mastery Skills and Computing Knowledge	• Begin to make music digitally using 2Sequence. • Explore, edit and combine sounds using 2Sequence. • Add sounds to a tune they've already created to change it. • Think about how music can be used to express feelings and create tunes which depict feelings. • Upload a sound from a bank of sounds into the Sounds section. • Record their own sound and upload it into the Sounds section. • Create their own tune using the sounds which they have added to the Sounds section.	• Show that the information provided on pictogram is of limited use beyond answering simple questions. • Use YES or No questions to separate information. • Construct a binary tree to separate different items. • Use 2Question (a binary tree) to answer questions. • Use a database to answer more complex search questions. • Use the search tool to find information.	• Explore how a story can be presented in different ways. • Make a quiz about a story or class topic. • Make a fact file on a nonfiction topic. • Make a presentation to the class.	
Key Vocabulary & Terminology	BPM, Instrument, Soundtrack, Composition Music, Tempo, Digitally, Sound Effects (SFX), Volume	Pictogram, Collate, Avatar, Question, Binary Tree, Database, Data	Concept Map (Mind Map), Quiz, Narrative, Node, Non-Fiction, Audience, Animated, Presentation	
Computing across the curriculum	• Music	• Maths • Science • English	• English • History • Geography • R.E	
Significant People, Places & Events inc. local area				
Culture, inclusivity and developing a love of computing		• Science Week		

ASSESSMENT OUTCOMES – YEAR 2 (B)

Computing			
Assessment Outcomes	**KS1** • **Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions** • **Create and debug simple programs** • **Use logical reasoning to predict the behaviour of simple programs** • **Use technology purposefully to create, organise, store, manipulate and retrieve digital content** • **Recognise common uses of information technology beyond school** • **Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.**		
Music	**Databases and Graphing**	**Writing and Presenting**	**Communication and Networks**
• **understand what 2Sequence is and how it works** • have used the different sounds within 2Sequence to create a tune • have explored how to speed up and slow down tunes • understand what happens to the tune when sounds are moved • have added sounds to a tune they've already created to change it • can change the volume of the background sounds • **have created two tunes which depict two feelings**	• understand that the information on pictograms cannot be used to answer more complicated questions • **understand what is meant by a binary tree** • have designed a binary tree to sort pictures of children • understand that questions are limited to 'yes' and 'no' in a binary tree • understand that the user cannot use 2Question to find out answers to more complicated questions • **have matched the 2Simple Avatar pictures to names using a binary tree** • **understand what is meant by a database** • have used a database to answer simple and more complex search questions	• **know that digital content can be represented in many forms** • have made a quiz about a story using 2Quiz • can talk about their work and make improvements to solutions based on feedback received • have extracted information from a 2Connect file to make a publisher fact file on a nonfiction topic • **have added appropriate clipart** • **have added an appropriate photo** • know that data can be structured in tables to make it useful • can use a variety of software to manipulate and present digital content and information • can collect, organise and present data and information in digital content • can create digital content to achieve a given goal by combining software packages.	

	CODING AND COMPUTIONAL THINKING	SPREADSHEETS	INTERNET AND EMAIL	ART AND DESIGN
	Coding	**Spreadsheets**	**Online Safety, Email**	
Gateway Skills & Knowledge	• Understand what an algorithm is. • Create a computer program using simple algorithms. • Understand how to use the Timer command. • Know what debugging means. • Understand the need to test and debug a program repeatedly. • Debug simple programs. • Predict what the objects will do in other programs, based on their knowledge of what the object is capable of. • Use all the coding knowledge, they have learned throughout their programming lessons to create a more complex program that tells a story.	• Use Copying and Pasting Totalling tools. • Use a spreadsheet to add amounts. • Create a table and block graph.	• Know how to refine searches using the Search tool. • Have some knowledge and understanding about sharing more globally on the Internet. • Begin to understand that Email can be used as a communication tool using 2Respond simulations. • Open and send simple online communications in the form of email. • Understand that information put online leaves a digital footprint or trail. • Begin to think critically about the information they leave online. • Identify the steps that can be taken to keep personal data and hardware secure. • Understand the terminology associated with searching. • Gain a better understanding about searching on the Internet.	•
Mastery Skills and Computing Knowledge	• Use 2Chart to represent a sequential program design. • Use the design to write the code for the program • Design and write a program that simulates a physical system. • Look at the grid that underlies the design and relate this to X and Y properties. • Introduce selection in their programming by using the if command. • Combine a timer in a program with selection. • Understand what a variable is in programming. • Use a variable to create a timer • Create a program with an object that repeats actions indefinitely. • Use a timer to make characters repeat actions. • Explore the use of the repeat command and how this differs from the timer. • Know what debugging means. • Understand the need to test and debug a program repeatedly. • Debug simple programs. • Understand the importance of saving periodically as part of the code development process.	• Create pie charts and bar graphs. • Use the 'more than', 'less than' and 'equals' tools. • Introduce the Advanced Mode of 2Calculate and use coordinates	• Know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away. • Understand how the Internet can be used to help us to communicate effectively. • Understand how a blog can be used to help us communicate with a wider audience. • Create a 'spoof' webpage and to think about why these sites might exist and how to check that the information is accurate. • Learn about the meaning of age restrictions symbols on digital media and devices. • Discuss why PEGI restrictions exist. • Know where to turn for help if they see inappropriate content or have inappropriate contact from others. • Think about the different methods of communication. • Open and respond to an email. • To write an email to someone, using an address book. • Learn how to use email safely. • Add an attachment to an email. • Explore a simulated email scenario.	
Key Vocabulary & Terminology	Action, Code Block, Control, Algorithm, Code Design, Debug/Debugging, Bug, Command, Design Mode	< > =, Columns, Move Cell Tool, Cells, Rows, Advance Mode, Delete Key, Spin Tool, Copy and Paste, Equals Tool, Spreadsheet	Password, Blog, Website, Internet, Concept Map, Webpage, Spoof Website, Username, PEGI Rating Communication, Report to Teacher, Password, Email, Attachment, CC, Compose, Address Book, Formatting, Send, Save to Draft	
Computing across the curriculum	• Maths • P.E	• Maths • Science		
Significant People, Places & Events inc. local area				
Culture, inclusivity and developing a love of computing		• Business and Enterprise Week	• Internet Safety Week	

ASSESSMENT OUTCOMES – YEAR 3 (A)

Computing

Assessment Outcomes

KS2

- **Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts**
- **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output**
- **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs**
- **Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration**
- **Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content**
- **Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information**
- **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.**

Coding and Computational Thinking

- can use a flowchart design to create the code
- **can explain what Object, Action, Output, Control and Event are in computer programming**
- can explain how their program simulates a physical system, i.e. my vehicles move at different speeds and angles
- can describe what they did to make their vehicle change angle
- can show that their vehicles move at different speeds
- can make use of the X and Y properties of objects in their coding
- **can create an if statement in their program**
- can use a timer and if statement to introduce selection in their program
- can explain why variables need to be named
- **can create a variable in a program**
- can set/change the variable values appropriately to create a timer
- beginning to understand how the use of the timer differs from the repeat command and can experiment with the different methods of repeating blocks of code
- can explain how they made objects repeat actions
- can explain what debug (debugging) means
- can debug simple programs
- can explain why it is important to save their work after each functioning iteration of the program they are making

Spreadsheets

- **can create a table of data on a spreadsheet**
- **can use a spreadsheet program to automatically create charts and graphs from data**
- can use the 'more than', 'less than' and 'equals' tools to compare different numbers and help to work out solutions to sums
- can use the 'spin' tool to count through times tables
- can describe a cell location in a spreadsheet using the notation of a letter for the column followed by a number for the row
- can find specified locations in a spreadsheet

Internet and Email

- can list a range of different ways to communicate
- can use 2Connect to highlight the strengths and weaknesses of each method
- **can open an email and respond to it**
- have sent emails to other children in the class
- **have written rules about how to stay safe using email**
- have created a quiz about email safety which explores scenarios that they could come across in the future
- **can attach work to an email**
- know what CC means and how to use it
- can read and respond to a series of email communications
- can attach files appropriately and use email communication to explore ideas.

Art and Design

	MUSIC	DATABASES AND GRAPHING	WRITING AND PRESENTING	COMMUNICATION AND NETWORKS
		Branching Databases, Graphing	Touch Typing	Simulations
Gateway Skills & Knowledge		• Show that the information provided on pictogram is of limited use beyond answering simple questions. • Use YES or No questions to separate information. • Construct a binary tree to separate different items. • Use 2Question (a binary tree) to answer questions. • Use a database to answer more complex search questions. • Use the search tool to find information.	• Explore how a story can be presented in different ways. • Make a quiz about a story or class topic. • Make a fact file on a nonfiction topic. • Make a presentation to the class.	• Record examples of technology outside school.
Mastery Skills and Computing Knowledge		• Sort objects using just YES/NO questions. • Complete a branching database using 2Question. • Create a branching database of the children's choice. • Enter data into a graph and answer questions. • Solve an investigation and present the results in graphic form.	• Introduce typing terminology. • Understand the correct way to sit at the keyboard. • Learn how to use the home, top and bottom row keys. • Practise and improve typing for home, bottom and top rows. • Practise the keys typed with the left hand. • Practise the keys typed with the right hand.	• Look at what simulations are • Explore a simulation. • Analyse and evaluate a simulation.
Key Vocabulary & Terminology		Branching Databases, Database, Question, Data Graph, Bar Chart, Pie Chart, Field, Block Graph, Row, Line Graph, Column	Posture, Top Row Keys, Home Row Keys, Bottom Row Keys, Space Bar	Simulation
Computing across the curriculum		• Maths	• English • History • Geography • R.E	
Significant People, Places & Events inc. local area				
Culture, inclusivity and developing a love of computing		• Business and Enterprise Week		

ASSESSMENT OUTCOMES – YEAR 3 (B)

<table>
<tr><th colspan="5">Computing</th></tr>
<tr><td>Assessment Outcomes</td><td colspan="4"><u>KS2</u>
• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
• Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
• Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
• Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
• Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</td></tr>
<tr><th colspan="2">Music</th><th>Databases and Graphing</th><th>Writing and Presenting</th><th>Communication and Networks</th></tr>
<tr><td colspan="2"></td><td>• understand how YES/NO questions are structured and answered
• have used YES/NO questioning to play a simple game with a friend
• have contributed to a class branching database about fruit
• have completed a branching database about vegetables
• can choose a suitable topic for a branching database
• can select and save appropriate images
• can create a branching database
• know how to use and debug their own branching database
• can set up a graph with a given number of fields
• can enter data for a graph
• can produce and share graphs made on the computer
• can present the results in a range of graphical formats</td><td>• understand the names of the fingers
• understand what is meant by – home, bottom, and top rows
• ability to touch type the home, bottom, and top rows
• can use two hands to type the letters on the keyboard
• can touch type using the left hand
• can touch type using the right hand</td><td>• know that a computer simulation can represent real and imaginary situations
• can give some examples of simulations used for fun and for work
• can give suggestions of advantages and problems of simulations
• can explore a simulation
• can use a simulation to try out different options and to test predictions
• can begin to evaluate simulations by comparing them with real situations and considering their usefulness
• can recognise patterns within simulations and make and test predictions
• can identify the relationships and rules on which the simulations are based and test their predictions
• can evaluate a simulation to determine its usefulness for purpose.</td></tr>
</table>

	CODING AND COMPUTIONAL THINKING	SPREADSHEETS	INTERNET AND EMAIL	ART AND DESIGN
	Coding	**Spreadsheets**	**Online Safety, Effective Search**	**Animation**
Gateway Skills & Knowledge	• Use the design to write the code for the program • Design and write a program that simulates a physical system. • Introduce selection in their programming by using the if command. • Understand what a variable is in programming. • Use a variable to create a timer • Create a program with an object that repeats actions indefinitely. • Explore the use of the repeat command and how this differs from the timer. • Know what debugging means. • Understand the need to test and debug a program repeatedly. • Debug simple programs. • Understand the importance of saving periodically as part of the code development process.	• Create pie charts and bar graphs. • Use the 'more than', 'less than' and 'equals' tools. • Introduce the Advanced Mode of 2Calculate and use coordinates	• Know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away. • Learn about the meaning of age restrictions symbols on digital media and devices. • Discuss why PEGI restrictions exist. • Know where to turn for help if they see inappropriate content or have inappropriate contact from others. • Think about the different methods of communication. • Learn how to use email safely.	• Begin to use 2Paint A Picture. • Explore surrealism and eCollage
Mastery Skills and Computing Knowledge	• Review coding vocabulary. • Use a sketch or storyboard to represent a program design and algorithm. • Use the design to create a program. • Introduce the If/else statement and use it in a program. • Create a variable. • Explore a flowchart design for a program with an if/else statement • Create a program which responds to the If/else command, using the value of the variable. • Create a program with a character that repeats actions. • Use the Repeat Until command to make characters repeat actions. • Program a character to respond to user keyboard input. • Make timers and counting machines using variables to print a new number to the screen every second. • Explore how 2Code can be used to investigate control by creating a simulation. • Know what decomposition and abstraction are in computer science. • Take a real-life situation, decompose it and think about the level of abstraction. • Design a decomposed feature of a real-life situation.	• Use the formula wizard in the advanced mode to add formulae and explore formatting cells • Understand how to use a timer and spin button • Understand how to use a line graphs • Use a spreadsheet for budgeting • Explore Place Value with a spreadsheet	• Understand how children can protect themselves from online identity theft. • Understand that information put online leaves a digital footprint or trail and that this can aid identity theft. • Identify the risks and benefits of installing software including apps. • Understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. • Identify appropriate behaviour when participating or contributing to collaborative online projects for learning. • Identify the positive and negative influences of technology on health and the environment. • Understand the importance of balancing game and screen time with other parts of their lives. • Locate information on the search results page. • Use search effectively to find out information. • Assess whether an information source is true and reliable.	• Discuss what makes a good animated film or cartoon and what their favourites are. • Learn how animations are created by hand. • Find out how 2Animate can be created in a similar way using the computer. • Learn about onion skinning in animation. • Add backgrounds and sounds to animations. • Begin to use stop motion animation. • Share animation on the class display board and by blogging.
Key Vocabulary & Terminology	Action, Bug, Design Mode, Alert, Code Design, Event, Algorithm, Command, Get Input, Debug/Debugging	Average, Column, Equals Tool, Advance Mode, Cells, Formula, Copy and Paste, Charts	Computer Virus, Digital Footprint, Phishing, Cookies, Email, Plagiarism, Identity Theft, Copyright, Malware, Spam Easter Egg, Internet, Internet Browser, Search, Search Engine, Spoof Website, Website	Animation, Onion Skinning, Sound, Flipbook, Background, Stop Motion, Frame, Play, Video Clip
Computing across the curriculum		• Maths	•	• Art • Music
Significant People, Places & Events inc. local area				
Culture, inclusivity and developing a love of computing				

ASSESSMENT OUTCOMES – YEAR 4 (A)

Computing

Assessment Outcomes

KS2

- **Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts**
- **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output**
- **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs**
- **Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration**
- **Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content**
- **Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information**
- **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.**

Coding and Computational Thinking

- can use sketching to design a program and reflect upon their design
- **can create code that conforms to their design**
- can create an 'If/else' statement
- understand what a variable is in programming
- can set/change the variable values appropriately
- can interpret a flowchart that depicts an if/else flowchart
- can show how a character repeats an action and explain how they caused it to do so
- can make a character respond to user keyboard input
- **can explain what a variable is when used in programming**
- can create a timer that prints a new number to the screen every second
- can explain how they made their program change the number every second
- can create an algorithm modelling the sequence of a simple event
- can manipulate graphics in the design view to achieve the desired look for the program
- **can use an algorithm when making a simulation of an event on the computer**
- can make good attempts to break down their aims for a coding task into smaller achievable steps
- 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

Spreadsheets

- **can use the number formatting tools within 2Calculate to appropriately format numbers**
- can add a formula to a cell to automatically make a calculation in that cell
- can use the timer, random number and spin button tools
- can combine tools to make fun ways to explore number
- **can use a series of data in a spreadsheet to create a line graph**
- can use a line graph to find out when the temperature in the playground will reach 20°C
- can make practical use of a spreadsheet to help them plan actions
- **can use the currency formatting in 2Calculate**
- can allocate values to images and use these to explore place value
- can use a spreadsheet made in 2Calculate to check their understanding of a mathematical concept

Internet and Email

- know that security symbols such as a padlock protect their identity online
- **know the meaning of the term 'phishing' and are aware of the existence of scam websites**
- **can explain what a digital footprint is and how it relates to identity theft**
- can give examples of things that they wouldn't want to be in their digital footprint
- can identify possible risks of installing free and paid for software
- know that malware is software that is specifically designed to disrupt, damage, or gain access to a computer
- **know what a computer virus is**
- are able to determine whether activities that they undertake online, infringe another's' copyright. They know the difference between researching and using information and copying it
- know about citing sources that they have used
- are able to take more informed ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities
- can give reasons for limiting screen time
- **can structure search queries to locate specific information**
- have used search to answer a series of questions
- have written search questions for a friend to solve
- can analyse the contents of a web page for clues about the credibility of the information

Art and Design

- have put together a simple animation using paper to create a flick book
- **have an understanding of animation 'frames'**
- **have made a simple animation using 2Animate**
- **know what the Onion Skin tool does in animation**
- can use the Onion Skin tool to create an animated image
- **can use backgrounds and sounds to make more complex and imaginative animations**
- **know what stop motion animation is and how it is created**
- have used ideas from existing stop motion films to recreate their own animation
- have shared their animations and commented on each other's work using display boards and blogs in Purple Mash.

	MUSIC	DATABASES AND GRAPHING	WRITING AND PRESENTING	COMMUNICATION AND NETWORKS
			Writing for Different Audiences	Hardware Investigators
Gateway Skills & Knowledge			• Introduce typing terminology. • Understand the correct way to sit at the keyboard. • Learn how to use the home, top and bottom row keys. • Practise and improve typing for home, bottom and top rows. • Practise the keys typed with the left hand. • Practise the keys typed with the right hand.	• Look at what simulations are • Explore a simulation. • Analyse and evaluate a simulation.
Mastery Skills and Computing Knowledge			• Explore how font size and style can affect the impact of a text. • Use a simulated scenario to produce a news report. • Use a simulated scenario to write for a community campaign.	• Understand the different parts that make up a computer. • Recall the different parts that make up a computer.
Key Vocabulary & Terminology			• Font, Bold, Italic, Underline	• Motherboard, CPU, RAM, Graphics Card, Network Card, Monitor, Speakers, Keyboard and Mouse
Computing across the curriculum			• English • History • Geography • R.E	• Science
Significant People, Places & Events inc. local area				
Culture, inclusivity and developing a love of computing				

ASSESSMENT OUTCOMES – YEAR 4 (B)

Computing			
Assessment Outcomes	**KS2** • **Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts** • **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output** • **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs** • **Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration** • **Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content** • **Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information** • **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.**		
Music	**Databases and Graphing**	**Writing and Presenting**	**Communication and Networks**
	•	• have looked at and discussed a variety of written material where the font size and type are tailored to the purpose of the text • **have used text formatting to make a piece of writing fit for its audience and purpose** • have role-played the job of a journalist in a newsroom • have interpreted a variety of incoming communications and used these to build up the details of a story • have used the incoming information to write their own newspaper report • **have used 2Connect to mind-map ideas** • have used these ideas to write a persuasive letter or poster as part of the campaign • Children have assessed their texts using criteria to judge their suitability for the intended audience	• **can name the different parts of a desktop computer** • **know what the function of the different parts of a computer is** • have created a leaflet to show the function of computer parts

	CODING AND COMPUTIONAL THINKING	SPREADSHEETS	INTERNET AND EMAIL	ART AND DESIGN
	Coding	**Spreadsheets**	**Online Safety**	
Gateway Skills & Knowledge	• Create a variable. • Explore a flowchart design for a program with an if/else statement • Create a program which responds to the If/else command, using the value of the variable. • Create a program with a character that repeats actions. • Use the Repeat Until command to make characters repeat actions. • Program a character to respond to user keyboard input. • Make timers and counting machines using variables to print a new number to the screen every second. • Explore how 2Code can be used to investigate control by creating a simulation. • Know what decomposition and abstraction are in computer science. • Take a real-life situation, decompose it and think about the level of abstraction. • Design a decomposed feature of a real-life situation.	• Use the formula wizard in the advanced mode to add formulae and explore formatting cells • Understand how to use a timer and spin button • Understand how to use a line graphs • Use a spreadsheet for budgeting • Explore Place Value with a spreadsheet	• Understand how children can protect themselves from online identity theft. • Understand that information put online leaves a digital footprint or trail and that this can aid identity theft. • Identify the risks and benefits of installing software including apps. • Identify appropriate behaviour when participating or contributing to collaborative online projects for learning. • Identify the positive and negative influences of technology on health and the environment. • Understand the importance of balancing game and screen time with other parts of their lives. • Locate information on the search results page. • Use search effectively to find out information. • Assess whether an information source is true and reliable.	• Discuss what makes a good animated film or cartoon and what their favourites are. • Learn how animations are created by hand. • Find out how 2Animate can be created in a similar way using the computer. • Learn about onion skinning in animation. • Add backgrounds and sounds to animations. • Begin to use stop motion animation. • Share animation on the class display board and by blogging.
Mastery Skills and Computing Knowledge	• Review coding vocabulary. • Use a sketch or storyboard to represent a program design and algorithm. • Use the design to create a program. • Design and write a program that simulates a physical system. • Review the use of number variables in 2Code. • Explore text variables. • Create a playable, competitive game. • Combine the use of variables, If/else statements and Repeats to achieve the desired effect in code. • Read code so that it can be adapted, personalised and improved. • Explore the launch command and use buttons within a program that launch other programs or open websites. • Create a program to inform others.	• Conversions of measurements. • Use the count tool. • Formulae including the advanced mode. • Use text variables to perform calculations. • Use a spreadsheet to plan an event.	• Gain a greater understanding of the impact that sharing digital content can have. • Review sources of support when using technology. • Review children's responsibility to one another in their online behaviour. • Know how to maintain secure passwords. • Understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this. • Be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online. • Learn about how to reference sources in their work. • Search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information. Ensuring reliability through using different methods of communication.	• Set the scene. • Create the game environment. • Create the game quest. • Finish and share the game • Evaluate their and peers' games. • Begin to use 2Design and Make. • Explore the effect of moving points when designing • Understand designing for a purpose. • Understand printing and making.
Key Vocabulary & Terminology	Action, Bug, Control, Alert, Code Design, Debug/Debugging, Algorithm, Command, Design Mode	Average, Charts, Random Tool, Advance Mode, Equals Tool, Rows, Copy and Paste, Formula, Spin Tool, Spreadsheet, Columns, Formula Wizard, Timer, Cells, Move Cell Tool	Online Safety, Encryption, Plagiarism, Smart Rules, Identity Theft, Citations, Password, Shared Image, Reference, Reputable, Bibliography, Photographs	
Computing across the curriculum		• Maths	•	• Art
Significant People, Places & Events inc. local area		•	•	•
Culture, inclusivity and developing a love of computing		• Business and Enterprise Week	• Internet Safety Week	•

ASSESSMENT OUTCOMES – YEAR 5 (A)

Computing			
Assessment Outcomes	**KS2** • **Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts** • **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output** • **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs** • **Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration** • **Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content** • **Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information** • **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.**		
Coding and Computational Thinking	**Spreadsheets**	**Internet and Email**	**Art and Design**
• can use sketching to design a program and reflect upon their design • can create code that conforms to their design • can explain how their program simulates a physical system • **can select the relevant features of a situation to incorporate into their simulation by using decomposition and abstraction** • can reflect upon the effectiveness of their simulation • can explain what a variable is in programming • can set/change the variable values appropriately • know some ways that text variables can be used in coding • can create a game which has a timer and score pad • **can use variables to control the objects in the game** • can create loops using the timer and If/else statements • **can include buttons and objects that launch windows to websites and programs** • can code a program that informs others	• can create a formula in a spreadsheet to convert m to cm • can apply formulas to creating a spreadsheet that converts miles to km and vice versa • can use a spreadsheet to work out which letters appear most often • can use the 'how many' tool • can use a spreadsheet to work out the area and perimeter of rectangles • can use these calculations to solve a real-life problem • **can create simple formulae that use different variables** • can create a formula that will work out how many days there are in x number of weeks or years • **can use a spreadsheet to model a real-life situation and come up with solutions that can be practically applied**	• know what Childnet SMART CREW is and have thought critically about the information that they share online both about themselves and others • **know who to tell if they are upset by something that happens online** • can use the SMART rules as a source of guidance when online • **think critically about what they share online, even when asked by a usually reliable person to share something** • have clear ideas about good passwords • can see how they can use images and digital technology to create effects not possible without technology • have experienced how image manipulation could be used to upset them or others even using simple, freely available tools and little specialist knowledge • can cite all sources when researching and explain the importance of this • **select keywords and search techniques to find relevant information and increase reliability** • show an understanding of the advantages and disadvantages of different forms of communication and when it is appropriate to use each	• can review and analyse a computer game • can describe some of the elements that make a successful game • **can begin the process of designing their own game** • can design the setting for their game so that it fits with the selected theme • can upload images or use the drawing tools to create the walls, floor and roof • **can design characters for their game.** • can decide upon, and change, the animations and sounds that the characters make • **can make their game more unique by selecting the appropriate options to maximise the playability** • **can write informative instructions for their game so that other people can play it** • **can evaluate my their own and peers' games to help improve their design for the future** • know what the 2Design and Make tool is for • have explored the different viewpoints in 2Design and Make whilst designing a building • have adapted one of the vehicle models by moving the points to alter the shape of the vehicle while still maintaining its form • have explored how to edit the polygon 3D models to design a 3D model for a purpose • have refined one of their designs to prepare it for printing • have printed their design as a 2D net and then created a 3D model • have explored the possibilities of 3D printing.

	MUSIC	DATABASES AND GRAPHING	WRITING AND PRESENTING	COMMUNICATION AND NETWORKS
		Databases	**Concept Maps**	
Gateway Skills & Knowledge		• Complete a branching database using 2Question. • Create a branching database of the children's choice. • Enter data into a graph and answer questions. • Solve an investigation and present the results in graphic form.	• Explore how font size and style can affect the impact of a text. • Use a simulated scenario to produce a news report. • Use a simulated scenario to write for a community campaign.	
Mastery Skills and Computing Knowledge		• Learn how to search for information on a database. • Contribute to a class database. • Create a database around a chosen topic.	• Understand the need for visual representation when generating and discussing complex ideas. • Understand and use the correct vocabulary when creating a concept map. • Create a concept map • Understand how a concept map can be used to retell stories and information. • Create a collaborative concept map and present this to an audience.	
Key Vocabulary & Terminology		• Avatar, Collaborative, Record, Binary Tree (Branching Database), Data, Sort Group and Arrange, Charts, Database, Statistics and Reports, Find, Table	• Audience, Concept Map, Node, Collaboratively, Connection, Thought, Concept, Idea, Visual	
Computing across the curriculum		• Maths • Science	• English • History • Geography • R.E	
Significant People, Places & Events inc. local area				
Culture, inclusivity and developing a love of computing				

ASSESSMENT OUTCOMES – YEAR 5 (B)

Computing	
Assessment Outcomes	**KS2** • **Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts** • **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output** • **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs** • **Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration** • **Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content** • **Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information** • **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.**

Music	Databases and Graphing	Writing and Presenting	Communication and Networks
	• **understand the different ways to search a database** • can search a database in order to answer questions correctly • have designed an avatar for a class database • have successfully entered information into a class database • **can create their own database on a chosen topic** • can add records to their database • **know what a database field is and can correctly add field information** • understand how to word questions so that they can be effectively answered using a search of their database	• can make connections between thoughts and ideas • can see the importance of recording concept maps visually • **understand what is meant by 'concept maps', 'stage', 'nodes' and 'connections'** • **can create a basic concept map** • have used 2Connect Story Mode to create an informative text • have used 2Connect collaboratively to create a concept map • have used Presentation Mode to present their concept maps to an audience.	

	CODING AND COMPUTIONAL THINKING	SPREADSHEETS	INTERNET AND EMAIL	ART AND DESIGN
	Coding, Text Adventures	**Spreadsheets**	**Online Safety**	
Gateway Skills & Knowledge	• Review coding vocabulary. • Use the design to create a program. • Design and write a program that simulates a physical system. • Review the use of number variables in 2Code. • Explore text variables. • Create a playable, competitive game. • Combine the use of variables, If/else statements and Repeats to achieve the desired effect in code. • Read code so that it can be adapted, personalised and improved. • Explore the launch command and use buttons within a program that launch other programs or open websites. • Create a program to inform others.	• Conversions of measurements. • Use the count tool. • Formulae including the advanced mode. • Use text variables to perform calculations. • Use a spreadsheet to plan an event.	• Gain a greater understanding of the impact that sharing digital content can have. • Review sources of support when using technology. • Review children's responsibility to one another in their online behaviour. • Know how to maintain secure passwords. • Understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this. • Be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online. • Learn about how to reference sources in their work. • Search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information. Ensuring reliability through using different methods of communication.	
Mastery Skills and Computing Knowledge	• Review good planning skills. • Design programs using their choice of objects, attributing specific actions to each using their new programming knowledge. • Use variables within a game to keep track of the properties of objects. • Use functions and understand why they are useful in 2Code. • Debug a program and organise the code into tabs. • Organise code into functions and Call functions to eliminate surplus code in the program. • Explore the options for getting text input from the user in 2Code. • Include interactivity in programming. • Use flowcharts to test and debug a program. • Create a simulation of a room in which devices can be controlled. • Explore how 2Code can be used to make a text-based adventure game.	• Exploring Probability • Use of spreadsheets in 'real life' Creating a computational mode • Use a spreadsheet to plan pocket money spending • Planning a school event	• Identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location. Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon. Identify the benefits and risks of giving personal information and device access to different software. • Review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user. • Have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour. • Begin to understand how information online can persist and give away details of those who share or modify it. • Understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health. • Identify the positive and negative influences of technology on health and the environment.	
Key Vocabulary & Terminology	Action, Bug, Control, Alert, Code Design, Debug/Debugging. Algorithm, Command	Average, Columns, Count (How Many) Tool, Advance Mode, Cells, Dice, Copy and Paste, Charts	Digital Footprint, PEGI Rating, Screen Time, Password, Phishing, Spoof Website	
Computing across the curriculum		• Maths	•	
Significant People, Places & Events inc. local area		•	•	
Culture, inclusivity and developing a love of computing		• Business and Enterprise Week	• Internet Safety Week	

ASSESSMENT OUTCOMES – YEAR 6 (A)

Computing			
Assessment Outcomes	**KS2** • **Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts** • **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output** • **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs** • **Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration** • **Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content** • **Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information** • **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.**		
Coding and Computational Thinking	**Spreadsheets**	**Internet and Email**	**Art and Design**
• **can plan a program before coding to anticipate the variables that will be required to achieve the desired effect** • **can follow through plans to create the program** • **can debug when things do not run as expected** • can explain what functions are and how they can be created and labelled in 2Code • can explain how to move code from one tab to another in 2Code • can explain how they organised code in a program into functions to make it easier to read • can code programs that take text input from the user and use this in the program • **can attribute variables to user input** • are aware of the need to code for all possibilities when using user input • can follow flowcharts to create and debug code • can create flowcharts for algorithms using 2Chart • can be creative with the way they code to generate novel visual effects • can follow through the code of how a text adventure can be programmed in 2Code • can adapt an existing text adventure to make it unique to their requirements	• can create a spreadsheet to answer a mathematical question relating to probability • can take copy and paste shortcuts • can problem solve using the count tool • can create a machine to help work out the price of different items in a sale • **can use the formula wizard to create formulae** • can use a spreadsheet to solve a problem • can use a spreadsheet to model a real-life situation and come up with solutions • **can make practical use of a spreadsheet to help plan actions** • **can use a spreadsheet to model a real-life situation and come up with solutions that can be applied to real life**	• have used the example game and further research to refresh their memories about risks online including sharing location, secure websites, spoof websites, phishing and other email scams • have used the example game and further research to refresh their memories about the steps they can take to protect themselves including protecting their digital footprint, where to go for help, smart rules and security software • **understand how what they share impacts upon themselves and upon others in the long-term** • **know about the consequences of promoting inappropriate content online and how to put a stop to such behaviour when they experience it or witness it as a bystander** • can take more informed ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities • can give reasons for limiting screen time • **can talk about the positives and negative aspects of technology and balance these opposing views**	

	MUSIC	DATABASES AND GRAPHING	WRITING AND PRESENTING	COMMUNICATION AND NETWORKS
			Blogging, Quizzing	Networks
Gateway Skills & Knowledge				
Mastery Skills and Computing Knowledge			• Identify the purpose of writing a blog. • Identify the features of successful blog writing. • Plan the theme and content for a blog. • Understand how to write a blog. To consider the effect upon the audience of changing the visual properties of the blog. • Understand the importance of regularly updating the content of a blog. • Understand how to contribute to an existing blog. • Understand how and why blog posts are approved by the teacher. • Understand the importance of commenting on blogs. • Peer-assess blogs against the agreed success criteria. • Make a picture quiz for young children. • Learn how to use the question types within 2Quiz. • Explore the grammar quizzes. • Make a quiz that requires the player to search a database. • Are you smarter than a 10- (or 11-) year-old? Make a quiz to test your teachers or parents.	• Discover what the children know about the internet. • Find out what a LAN and a WAN are. To find out how we access the internet in school. • Research and find out about the age of the internet. • Think about what the future might hold in terms of the internet.
Key Vocabulary & Terminology			• Audience, Blog Page, Collaborative, Blog, Blog Post, Icon, Concept Map, Database, Quiz	• Internet, Network, Router, World Wide Web, Local Area Network (LAN), Network Cables, Wide Area Network (WAN), Wireless
Computing across the curriculum			• English • History • Geography • R.E	
Significant People, Places & Events inc. local area				
Culture, inclusivity and developing a love of computing				

ASSESSMENT OUTCOMES – YEAR 6 (B)

Computing			
Assessment Outcomes	**KS2** • **Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts** • **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output** • **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs** • **Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration** • **Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content** • **Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information** • **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.**		
Music	**Databases and Graphing**	**Writing and Presenting**	**Communication and Networks**
		• understand how a blog can be used as an informative text • **understand the key features of a blog** • can work collaboratively to plan a blog • **can create a blog with a specific purpose** • understand that the way in which information is presented has an impact upon the audience • understand that blogs need to be updated regularly to maintain the audience's interest and engagement • can post comments and blog posts to an existing class blog • **understand the approval process that their posts go through and demonstrate an awareness of the issues surrounding inappropriate posts and cyberbullying** • can comment on and respond to other blogs • can assess the effectiveness and impact of a blog • have used the 2DIY activities to create a picture based quiz • have considered the audience's ability level and interests when setting the quiz • have shared their quiz and responded to feedback • understand the different question types within 2Quiz. • have ideas about what sort of questions are best suited to the different question types • have shared their quiz with peers • have given and responded to feedback • as a class, children have collaborated on a quiz • have tried out the different types of Text Toolkit grammar games • have chosen an appropriate Text Toolkit tool to make their own grammar game • have used a 2Investigate quiz to answer quiz questions • have designed their own quiz based on one of the 2Investigate example databases • have used their knowledge of quiz types to create a quiz show quiz based on a curriculum area	• **know the difference between the World Wide Web and the internet** • **know about their school network** • have researched and found out information • **have considered some of the major changes in technology which have taken place during their lifetime and the lifetime of their teacher/another adult**