Mount Charles School
Computing Progression Map

National Curriculum Strands:

Computer Science | Digital Literacy | Information Technology

		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Coding	National Curriculum Objectives		- 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	- 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.	- 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.	- 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. - 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. and presenting data and information.		

	Knowledge		- That coding is writing instructions in a way that computers interpret them to make a program. - That for a computer to make something happen, it needs to follow clear instructions. - That a command is a single instruction in a program. - A block of code is a group of commands joined together and run when a condition is met or event happens.	- An algorithm is a precise set of instructions. - What 'repeat' and 'timer' commands are used for. - What a 'bug' is and what 'debugging' means. - The importance of saving their program after each iteration. - That certain objects can only carry out certain algorithms.	- What a flowchart is. - What a physical system is. - What Object, Action, Output, Control and Event are in computer programming. - What 'selection' is and what variables are. - What timers and repeat commands do and how they differ.	- The stages of the cycle of coding – design, code, test, debug, test. - The usefulness of the statements and/if/else when coding with selection. - What a variable is when programming and how to include them in programs. - How to use the 'repeat until' tool. - What an if/else flowchart looks like. - What decomposition and abstraction are.	- What simulating a physical system means. - What a 'text variable' is and some ways they can be used in coding. - How if/else selection statements function. - That buttons and objects can link to and open other programs.	- That programs can be made into functions to enable surplus code to be eliminated. - That variables can be attributed to user inputs and possible inputs coded for. - How a program to receive a user input.
	Skills		- Read through blocks of code. - Design a simple program. - Create a simple program using appropriate menus and commands. - Control how a character moves, make it move when clicked and	- Plan, create and code computer programs using simple algorithms to achieve a desired outcome. - Use the repeat command to make objects behave in the desired way. - Use the timer command to	- Create a design that represents a sequential algorithm. - Use a flowchart to create code. - Make objects move and different speeds and angles. - Use 'if' to introduce selection.	- Design a program and then create the code that conforms to their design. - Interpret and use if/else statements within a variable and set/change the values. - Make an object respond to an	- Use sketching to represent a program design or algorithm. - Create the code that conforms to their design. - Use decomposition and abstraction to select relevant features of a physical system.	- Design a program before coding that anticipates what the required variables will be. - Follow plans to create a program and debug it as the go. - Organise code into functions and

			make a sound when it collides with another object.	make objects behave in the desired way. - Save the program after each iteration. - Spot a bug and go through the process of 'debugging' a program.	- Create a variable and change values to create a timer. - Create repetition for an action. - Debug a program using the design document. - Save work after each iteration of the program.	input and use the 'repeat until' command. - Create an algorithm modelling the sequence of a simple event and use it when simulating on a computer. - Decompose and design a feature of a real-life situation and show an awareness of abstraction.	- Use 'text variables' and 'number variables' - Use variables to control objects within a game situation. - Use selection, timer and repeat to create loops. - Include buttons in code to launch other programs and open new windows.	move between tabs. - Call functions when coding to avoid unnecessarily repeating long code blocks. - Code a program that can take text input and attribute it to a variable. - Create and follow a flowchart to create and debug code. - Create a simulation with novel visual effects.
	Vocabulary Tier 2: **Tier 3:** (If red, this is new vocabulary to be introduced to the chn for the year group selected)		**action, algorithm**, background, **code, command, debug, debugging, event, execute, input,** instructions, object, **output, properties, run, scale, scene**, sound, '**when clicked'**	**action, algorithm**, background, button, **collision detection, debug, debugging, design mode, event,** key pressed, **nesting,** object, predict, **properties, run, scale, scene,** sequence, sound, test, text, timer, **'when clicked/swiped'**	**action**, alert, **algorithm,** background, **blocks of command,** button, **collision detection, command, debug, debugging**, develop, **event, execute, flowchart, nesting**, object, **output**, plan, predict, **procedure**, **properties**, repeat, sequence, scene,	**action**, alert, background, button, **code block, command**, co-ordinates, **debug, debugging, execute, flowchart, if, if/else, nesting, number variable,** object types, predict, **prompt, prompt for input, properties,** repeat, **repeat until,** selection,	**action, abstraction, algorithm,** button, **called, co-ordinates, decomposition, event, function, if, nesting,** object, **physical system, properties**, run, repeat, score, sequence, **simplify, simplified, simulation, string,** tab, timer, **variable**	**action,** alert, **algorithm,** background, button, **called, command, co-ordinates, debug, debugging, decomposition, developer, event, flowchart, function, get input, if/else, launch command, number variable, nested,** object, predict, **procedure, prompt,**

					sound, test, timer, **values**	timer, **variable, variable value**		**properties**, repeat, run, scene, selection, **simulation, string,** tab, timer, **user input, variable**
Online Safety	National Curriculum Objectives	**Birth to Five Matters** **Nursery - Range 5**: *36-48 months (3-4 years old)* • Know how to handle equipment safely • Begin to know that they shouldn't use devices without supervision **Reception Range 6***: (4-5 years old)* • Begin to give reasons why we need to stay safe online • Can use the internet with adult supervision	- 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.			Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact.	- Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact. 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 technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact. 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

		to find and retrieve information of interest to them						results are selected and ranked, and be discerning in evaluating digital content.
	Knowledge		- What an avatar, a username and a password are. - That usernames and passwords are private information and should not be shared. - That content they create can be saved online. - That icons represent functions in programmes – e.g. save, print, open and new.	- That things can be shared electronically both on Purple Mash and on the Internet. - That email is a form of digital communication. - That you should behave in the same way when communicating online as if communicating face-to-face. - That information put online leaves a trail – a digital footprint.	- What makes a password safe and how to keep it safe. - What the consequences of giving a password away are. - Ways in which the Internet can help us communicate to a wider audience. - That not everything on a website will be true or accurate – spoof/phishing. - Some physical and emotional effects of playing/watching inappropriate content/games. - What PEGI restrictions are and why they exist. - Where to ask for help if they see	- That symbols such as the 🔒protect their online identity. - What 'phishing' is and that 'scam' websites exist. - What a digital footprint is and its link to identity theft and give examples of things they would not want in it. - That there are both benefits and risks to installing software. - What a computer virus is and what 'malware' is and does. - Copying others work is called 'plagiarism' and have a basic knowledge of 'copyright'. - That technology has positive and	- Who to tell if upset or scared by something online. - What the SMART rules are. - What impact sharing digital content can have. - Not to believe everything they see online and know about image manipulation. - The advantages and disadvantages of altering images, the purpose for it and the permissions needed to do it. - That image manipulation could be used to cause harm or upset and that it is relatively easy. - That if copying information from a source needs to	- That mobile devices can broadcast location and the risks and benefits of this. - That 🔒and https are a sign of security. - The benefits and risks of giving personal information. - The benefits and risks of granting device access to different software. - What they share impacts themselves and others in the long-term. - About their digital footprint and appropriate online behaviour and how this can protect themselves and others from

					inappropriate content. - That cyberbullying and 'real-world' bullying have the similar effects. (Flag it, Block it, Report it)	negative influences on health and the environment.	be referenced to avoid plagiarism.	bullying and inappropriate behaviour. - How to prevent and stop negative behaviour online. - The need to balance 'digital time' with other things in their life and the negative effects on their life if they don't.
	Skills		- Login safely and logout after every session. - Use icons to open, save and add pictures and text to work.	- Use a search facility to refine a search. - Share created work 'online' Open and send an 'email' - Show what they would and would not want in their digital footprint.	- Can create a strong password. - Search the internet and think critically about the results. - How to check that a website is accurate.	- Undertake research online and know when to cite sources they have used. - Identify appropriate behaviour when working collaboratively on 'online projects' - Make informed choices about how they choose to spend their free time – balancing being active with digital activities.	- Think critically about what they share online – even when asked by a usually reliable person. - Identify inappropriate material and follow the rules to deal with it. - Create and maintain secure passwords. - To search the Internet considering the reliability of results and consider the impact of incorrect information. - To select key words to help find relevant	- Recognise and make changes, if necessary, to how they use technology. - To discuss positive and negative aspects of technology. - Behave appropriately online both in school and in the 'real world' with their own devices.

							information quicker. - To cite sources when researching a topic.	
	Vocabulary Tier 2: **Tier 3:** (If red, this is new vocabulary to be introduced to the chn for the year group selected)		**Log in, avatar, log out,** save, **username**, my work, **notification, password,** topics, tools	**search, displayboard, Internet,** sharing, **email, attachment, digital footprint**	**password**, **Internet, blog, concept map**, **username, website, webpage, spoof website, PEGI rating**	**computer virus, cookies, copyright, digital footprint, email, identity theft, malware, phishing, plagiarism, spam**	**online safety, SMART rules, password, reputable, encryption, identity theft, shared image, plagiarism, citations, reference, bibliography**	**digital footprint, password, PEGI rating, phishing, spoof website, screen time**
Spreadsheets	National Curriculum Objectives		Use technology purposefully to create, organise, store, manipulate and retrieve 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.			
	Knowledge		- What a spreadsheet program looks like. - That each part of the grid is a cell. - That they are in rows and columns. - That it will do calculations in the cells. - That you can count values in cells.	- What rows and columns in a spreadsheet are. - When to copy and paste in a spreadsheet. - Some examples of when a spreadsheet could be helpful.	- That the symbols for more than, less than and equals can be used to compare values in a spreadsheet. - How you would collect data and what graph to create. - How to locate a cell in a spreadsheet using coordinates.	- What the timer, random number and spin tools do. - Tools can be combined to achieve a variety of effects. - The type of data that can be represented in a line graph.	- That formula can automatically carry out calculations using different cells. - That spreadsheets can model real-life situations.	- That the formula wizard, copy and paste functions make creating spreadsheets more efficient. - What a computational model is and examples of what can be modelled using a spreadsheet.

	Skills		- Navigate around a spreadsheet. - Save and open sheets. - Enter data into cells. - Insert an image into a cell and move it around. - Give a cell a value. - Use the count and speak tools.	- Open, save and edit a spreadsheet using appropriate functions. - Use copying and pasting. - Use tools to total rows and columns. - Create a table of data and a graph.	- Create a table of data and use it to create charts and graphs. - Use the compare tools to compare values. - Find a specified cell in a spreadsheet using its coordinates.	- Use the number formatting tools - Add a formula to a cell to automatically do a calculation - Use timer, random number and spin tools. - Create a line graph from given data. - Model a real-life situation using a spreadsheet and relevant tools.	- Create a formula in a spreadsheet that shows the product of two other cells - Create a formula that counts values in a group of cells. - Create a simple formula that uses different variables. - Model a real-life situation on a spreadsheet.	- Use the formula wizard to create formula. - Create spreadsheets to solve mathematical problems. - Take copy and paste shortcuts. - Use the count tool. - Use a spreadsheet to model a real-life event.
	Vocabulary Tier 2: **Tier 3:** (If red, this is new vocabulary to be introduced to the chn for the year group selected)		**arrow keys, backspace key, cursor, columns, cells, clipart, count tool, delete key, image toolbox, lock tool, move cell tool, rows, speak tool, spreadsheet**	**backspace key, copy and paste, columns, cells, count tool, delete key, equals tool, image toolbox, lock tool, move cell tool, rows, speak tool, spreadsheet**	**< > =, advance mode, copy and paste, columns, cells, delete key, equals tool, move cell tool, rows, spin tool, spreadsheet**	**average function, advance mode, copy and paste, columns, cells, charts, equals tool, formula, formula wizard, move cell tool, random tool, rows, spin tool, spreadsheet, timer**	**average function, advance mode, copy and paste, columns, cells, charts, equals tool, formula, formula wizard, move cell tool, random tool, rows, spin tool, spreadsheet, timer**	**average function, advance mode, copy and paste, columns, cells, charts, count (how many) tool, dice, equals tool, formula, formula wizard, move cell tool, random tool, rows, spin tool, spreadsheet, timer**
Predominantly Computer Science (all other units)	National Curriculum	**Birth to Five Matters** **Nursery - Range 5**: *36-48 months (3-4 years old)*	**Lego Builders (1.4)** **Maze Explorers (1.5)** Understand what algorithms are; how they are implemented			**Logo (4.5)** - Design, write and debug programs that accomplish specific goals, including controlling or	**Game Creator (5.5)** Design, write and debug programs that accomplish specific goals, including controlling or	**Text Adventures (6.5)** Design, write and debug programs that accomplish specific goals, including controlling or

		• Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images • Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets **Reception Range 6***: (4-5 years old)* • Develops digital literacy skills by being able to access, understand and interact with a range of technologies	as programs on digital devices; and that programs execute by following precise and unambiguous instructions			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. **Hardware Investigators (4.8)** 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.	simulating physical systems; solve problems by decomposing them into smaller parts.	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. 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

		• Completes a simple program on electronic devices						presenting data and information **Networks (6.6)** 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.
	Knowledge		**Lego Builders (1.4)/ Maze Explorers (1.5)** - That following instructions correctly will get the correct result. - That an algorithm is a precise step-by-step set of instructions for a computer and must be followed correctly. - That instructions need to be accurate.			**Logo (4.5)** - Logo is a coding language used to control an on-screen turtle to create mathematical patterns. - A range of simple commands to make the turtle move. - Commands can be linked to make procedures. **Hardware Investigators (4.8)** - The difference between hardware and software.	**Game Creator (5.5)** - The difference between the WWW and the Internet - What a LAN and WAN are and the difference between them. - Who Tim Berners-Lee is. - Some of the major changes in technology which have taken place in our lifetime.	**Text Adventures (6.5)** - What a text adventure is. - Why it is important to plan a text adventure. - What a map-based text-adventure is. **Networks (6.6)** - The difference between the WWW and the Internet - What a LAN and WAN are and the difference between them. - Who Tim Berners-Lee is.

			- Computers need precise instructions and an algorithm for a computer is a program. - They are many instructions that can be given and begin to know more of these. - Correcting errors in a program is called 'debugging'			- The different parts the make up a desktop computer. - The function of the different parts of the computer.		- Some of the major changes in technology which have taken place in our lifetime.
	Skills		**Lego Builders (1.4)/ Maze Explorers (1.5)** - Follow instructions accurately to achieve the effect that they want. - Follow instructions in a computer program. - Organise and sequence simple instructions. - Create longer algorithms using a wider range of commands. - Make logical attempts to fix			**Logo (4.5)** - Use the Logo language to input simple commands. - Begin to create patterns of shapes of increasing complexity using more and more commands. - Predict an outcome by following the Logo code. - Build and then use procedures to create more complex outcomes.	**Game Creator (5.5)** Use search skills to find out about the age of the internet and about Tim Berners-Lee.	**Text Adventures (6.5)** - Map out a text-based adventure. - Create, code, test and debug an adventure. - Map out an existing text-adventure. - Contrast map and text adventures. - Use coding concepts (selection and repetition) to code their game. - Make logical attempts to debug as they go along. **Networks (6.6)**

			code they have written (debug).			**Hardware Investigators (4.8)**		Use search skills to find out about the age of the internet and about Tim Berners-Lee.
	Vocabulary Tier 2: **Tier 3:**		**Lego Builders (1.4)** **instruction, algorithm, computer, program, debug** **Maze Explorers (1.5)** direction, challenge, arrow, undo, rewind, forward, backwards, right turn, left turn, **debug, instruction, algorithm**			**Logo (4.5)** **logo, BK** (move backwards), **FD** (move forwards), **RT** (right turn), **LT** (left turn), **REPEAT, SETPC** (set pen colour), **SETPS** (set pen thickness), **PU** (lift pen up off screen), **PD** (put pen back down). **Hardware Investigators (4.8)** **Motherboard, CPU, RAM, Graphics card, Network card, monitor, speakers, keyboard and mouse**	**animation,** computer game, **customise, evaluation**, image, instructions, **interactive, screenshot, texture, perspective, playability**	**Text Adventures (6.5)** **text-based adventure, concept map, debug, sprite, function** **Networks (6.6)** **Internet, World Wide Web, Network, Local area network (LAN), Wide area network (WAN), router, network cables, wireless**
Predominantly Digital Literacy (all other units)	National Curriculum		**Technology out of school (1.9)** Recognise common uses of information	**Effective Searching (2.5)** Recognise common uses of information	**Email (3.5)** Use technology safely, respectfully and responsibly; recognise acceptable/			

			technology beyond school	technology beyond school Use technology purposefully to create, organise, store, manipulate and retrieve digital content	unacceptable behaviour; identify a range of ways to report concerns about content and contact. 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. 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.			

	Knowledge		**Technology out of school (1.9)** - What technology is. - That technology is used in the 'real world' all around us. - That technology can make our lives easier and know examples from the local area.	**Effective Searching (2.5)** - What the key internet terms mean – Internet, search and search engine. - What the basic parts of a web search engine page are.	**Email (3.5)** - There are different ways to communicate. - What an email is. - What the key parts of an email are. - What information can be sent in an email. - What to do if they are not sure what an email means or it makes them upset or scared.			
	Skills		**Technology out of school (1.9)** Make a distinction between objects that use modern technology and those that do not.	**Effective Searching (2.5)** - Read a web search results page. - Search the Internet effectively to answer questions.	**Email (3.5)** - Open and respond to an email. - Add an attachment to an email. - Use CC when sending an email.			
	Vocabulary		**technology**	**Internet, search, search engine**	**communication, email, compose, send, report to the teacher, attachment,** address book, **save to draft**, **password, CC, formatting**			
Predominantly Information	National Curriculum	**Birth to Five Matters**	**Animated Storybooks (1.6)**	**Questioning (2.4)**	**Touch Typing (3.4)**	**Animation (4.6)**	**Databases (5.4)**	**Blogging (6.4)** **Quizzing (6.7)**

Technology (all other units)		**Nursery - Range 5**: *36-48 months (3-4 years old)* • Knows that information can be retrieved from digital devices and the internet • Knows how to operate simple equipment, e.g. turn on CD player, uses a remote control, can navigate touch-capable technology with support **Reception Range 6***: (4-5 years old)* • Can create content such as a video recording, stories, and/or draw a picture on screen	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	**Presenting Ideas (2.8)** Use technology purposefully to create, organise, store, manipulate and retrieve digital content	**Branching Databases (3.6)** **Simulations (3.7)** **Graphing (3.8)** 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.	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. **Effective searching (4.7)** Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Understand computer networks, including the Internet; how they can provide multiple services, such as the World	**Concept Maps (5.7)** 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	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. **Blogging (6.4)** Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact* Understand computer networks, including the Internet; how

		•Uses ICT hardware to interact with age-appropriate computer software • Begin to list different IT in their home				Wide Web; and the opportunities they offer for communication and collaboration.		they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration. **Quizzing (6.7)** Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Use sequence, selection and repetition in programs; work with variables and various forms of input and output **(6.5 only)**

	Knowledge		**Animated Storybooks (1.6)** - The difference between a traditional book and an e-book. - Know what animations, fonts and sound effects are and that they can be manipulated.	**Questioning (2.4)** - How a pictogram shows information and how it cannot be used to answer complicated questions. - What a binary tree is and how information is organised. - Questions in a binary tree may only be answered with yes or no. - What a database is. **Presenting Ideas (2.8)** - That digital content can be presented in different forms. - That data can be put in tables to make it more useful. - That planning a presentation will ensure the correct content is included.	**Touch Typing (3.4)** - What each of the fingers are named. - What the home, bottom and top rows are on a keyboard. - How to sit properly at a keyboard. **Branching Databases (3.6)** - What data means. - What a database (binary trees) is and specifically what a branching database (binary trees) is. - How YES/NO questions are structured and answered. - Branching databases (binary trees) need to be debugged like programs. **Simulations (3.7)** - A computer simulation can represent real and imaginary situations and give some examples.	**Animation (4.6)** - What an animation is and what makes a good one. - How animations are created by hand and that a computer can do it in a similar way. - What an animation frame is. - What 'onion skinning' and 'stop frame animation' are and how they are created. **Effective searching (4.7)** - What a search engine is. - What a spoof website is and that not all websites are genuine and accurate.	**Databases (5.4)** - What a database record and field is. - There are different ways to search databases. - Why it is important to be able to collaborate when inputting data. **Concept Maps (5.7)** - What a concept map is. - What 'stage', 'nodes' and 'connections' refer to. - That concept maps helps share ideas that can be quickly amended or added to.	**Blogging (6.4)** - What a blog is and what they can be about. - That the visual properties will depend on the audience. - The importance of regularly updating content. - That the audience are involved in a blog and can leave comments. - Why blogs and blog posts need moderators e.g. a teacher **Quizzing (6.7)** - The factors to consider when creating a quiz. - The types of question that can be asked. - What the quiz needs to contain other than the questions.

					- Recognise the limitations of simulations and that problems can still occur in real life – they can also be expensive. **Graphing (3.8)** - What a graph is and what the frame lines (axes) are called and what they represent. - There are lots of different types of graphs including: line graph, bar chart and pie chart.			
	Skills		**Animated Storybooks (1.6)** - Add and manipulate text and images. - Add animation, sound or music to a story. - Record sounds and add to pages in a story. - Copy and paste a page in the book. - Manipulate images and backgrounds to enhance a story.	**Questioning (2.4)** - Use a range of yes/no questions to separate different items. - Design yes/no questions and a binary tree to sort simple pictures. - Use a database to answer simple and more complex search questions. **Presenting Ideas (2.8)**	**Touch Typing (3.4)** - Use two hands to type letters on the keyboard. - Touch type with left and right hand. **Branching Databases (3.6)** - Create YES/NO questions - Created a branching database (binary trees). - Debug a branching	**Animation (4.6)** - Create an animation using a flick book technique. - Add backgrounds and sounds to an animation using the 'onion skinning' tool. - Create a short 'stop motion' animation. **Effective searching (4.7)** - Structure search queries to locate	**Databases (5.4)** - Search a database in different ways. - Search a database to answer a question. - Enter information into a database. - Create their own database by adding records and appropriate fields. - Word questions so that they can	**Blogging (6.4)** - Plan a theme for a blog and write the content. - Change the visual properties to suit the audience. - Comment and respond appropriately to blogs. - Evaluate the effectiveness of blogs. **Quizzing (6.7)**

			- Play the pages I have created.	- Ask appropriate questions based on digital content. - Plan and create a fact file using relevant information, images and tables. - Collect, organise and present data. - Create digital content to achieve a given goal.	database (binary trees) if necessary. **Simulations (3.7)** - Explore and use simulations to try out options and test predictions. - Recognise patterns, rules and relationships on which simulations are based and test predictions. - Evaluate and consider usefulness of simulations by comparing with real situations. **Graphing (3.8)** - Set up and enter data for a graph. - Produce and share graphs made on a computer. - Present results in a range of graphical forms.	specific information effectively. - Can assess and analyse the contents of a web page for clues about its authenticity and accuracy.	be effectively answered using a search of their database. **Concept Maps (5.7)** - Make connections between thoughts and ideas. - Record them as a concept map. - Collaboratively create a concept map and present it.	- Create a picture-based quiz for younger children. - Create a quiz showing awareness of audience interests and ability. - Adapt a quiz in response to feedback. - Create a quiz that requires the player to search a database. - Create a quiz utilising relevant quiz types when making questions.
	Vocabulary		**Animated storybooks (1.6) animation, e-book, font, file, sound effect, display board**	**Questioning (2.4)** **pictogram, question, data, collate, binary tree, avatar, database** **Presenting ideas (2.8)**	**Touch typing (3.4)** **posture, top row keys, home row keys, bottom row keys, space bar** **Branching databases (3.6)**	**Animation (4.6)** **animation, flipbook, frame, onion skinning,** background, play, sound, **stop motion,** video clip **Effective Searching (4.7)**	**Databases (5.4)** **avatar, binary tree (branching database), charts, collaborative, data, database,** find, record, sort, group and arrange,	**Blogging (6.4)** audience, **blog, blog page, blog post, collaborative, icon** **Quizzing (6.7)** audience, **collaboration,**

				concept map (mind map), node, animated, quiz, non-fiction, **presentation,** narrative, audience	**branching database, database, question, data** **Simulations (3.7)** **simulation** **Graphing (3.8)** **graph, field, data, bar chart, block graph, line graph, pie chart, row, column**	**Easter egg, Internet, Internet browser, search, search engine, spoof website, website**	**statistics, reports, table** **Concept Maps (5.7)** **audience, collaboratively, concept, concept map, connection,** idea**, node,** thought, visual	**concept map, database, quiz**