YEAR 4 CURRICULUM MAP

4	Autumn		Spring		Summer	
	Coding	**Online Safety & Databases**	**Effective Searching Intro to AI**	**Animation Making Music**	**Logo Hardware Investigators**	**Writing for Different Audiences**
Key Learning	• To begin to understand selection in computer programming. • To understand how an IF statement works. • To understand how to use co-ordinates in computer programming. • To understand the 'repeat until' command. • To understand how an IF/ELSE statement works. • To understand what a variable is in programming. • To use a number variable. • To create a playable game.	• To understand how children can protect themselves from online identity theft. • To understand that information put online leaves a digital footprint or trail and that this can aid identity theft. • To identify the risks and benefits of installing software including apps. • To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. • To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. • To identify the positive and negative influences of technology on health and the environment. • To understand the importance of balancing game and screen time with other parts of their lives.	• To locate information on the search results page. • To use search effectively to find out information. • To assess whether an information source is true and reliable • To learn what is meant by the term artificial intelligence. • To be clear about ways artificial intelligence is used in our everyday lives. • To consider the future of artificial intelligence • To look at how artificial intelligence is used in music and the arts to create things.	• To discuss what makes a good animated film or cartoon. • To learn how animations are created by hand. • To find out how animation can be created in a similar way using the computer. • To learn about onion skinning in animation. • To add backgrounds and sounds to animations. • To be introduced to 'stop motion' animation. • To share animation on the class display board and by blogging. • To identify and discuss the main elements of music. • To understand and experiment with rhythm and tempo. • To create a melodic phrase. • To electronically compose a piece of music	• To learn the structure of the coding language of Logo. • To input simple instructions in Logo. • Using 2Logo to create letter shapes. • To use the Repeat function in Logo to create shapes. • To use and build procedures in Logo. • To understand the different parts that make up a computer. • To recall the different parts that make up a computer.	• To explore how font size and style can affect the impact of a text. • To use a simulated scenario to produce a news report. • To use a simulated scenario to write for a community campaign.

Touch Type Focus	**Words starting C and Y** To use increasing knowledge of a keyboard to be able to type out words beginning with and including a variety of letters.	**Words starting D and X** To use increasing knowledge of a keyboard to be able to type out words beginning with and including a variety of letters.	**Words starting F and W** To use increasing knowledge of a keyboard to be able to type out words beginning with and including a variety of letters.	**Words starting G and V** To use increasing knowledge of a keyboard to be able to type out words beginning with and including a variety of letters.	**Words starting H and T** To use increasing knowledge of a keyboard to be able to type out words beginning with and including a variety of letters.	**Words starting J and S** To use increasing knowledge of a keyboard to be able to type out words beginning with and including a variety of letters.
Vocabulary	Action, alert, algorithm, background, button, code blocks, command, debug/debugging, design, execute, event, flowchart, if statements, if/else statement, input, nest, object, prompt, implement, repeat until, predict, repeat, run, properties, selection, sequence, timer, variable	Adfly, attachment, citation, collaborate, cookies, copyright, digital footprint, malware, phishing, plagiarism, ransomware, SMART rules, spam, virus, watermark	Balanced view, easter eggs, internet, key words, reliability, results page, search engine Algorithm Artificial intelligence, data	Animation, Frames per second FPS, frame, onion skinning, pause, stop motion BPM, dynamics, harmonious, melody, pitch, tempo, pulse, tempo, texture, rhythm, synths	Debugging, grid, LOGO, LOGO commands e.g. FD, BK, RT, LT), multi-line mode, pen down, prediction, Pen Up, Procedure, repeat, run speed, SETPC, SETPS Components, CPU, graphics card, hard drive, input, motherboard, network card, output, peripherals, RAM, software	Campaign, format, font, genre, opinion, reporter, viewpoint
Skills	**Pupils should be taught to:** ♣ 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.