

YEAR 5 CURRICULUM MAP

5	Autumn		Spring		Summer	
	Coding	Online Safety & Databases	Word Processing	3D modelling Concept Maps	External Devices	Game Creator
Key Learning	<ul style="list-style-type: none"> • To begin to simplify code. • To create a playable game. • To understand what a simulation is. • To program a simulation using 2Code. • To know what decomposition and abstraction are in computer science. • To take a real-life situation, decompose it and think about the level of abstraction. • To understand how to use friction in code. To begin to understand what a function is and how functions work in code. • To understand what the different variables types are and how they are used differently. • To understand how to create a string. • To understand what concatenation is and how it works. 	<ul style="list-style-type: none"> • To understand the impact that sharing digital content can have. • To review sources of when using technology and children's responsibility to one another when online • To know how to maintain secure passwords. • To understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this. • To be aware of the appropriateness of text, photographs and videos and the impact of sharing these online. • To learn how to reference sources in their work. • To search the Internet with a consideration for the reliability of the results • To ensure reliability through using different methods of communication. • To learn how to search for information in a database. • To contribute to a class database. • To create a database around a chosen topic. 	<ul style="list-style-type: none"> • To know what a word processing tool is for. • To add and edit images to a word document. • To know how to use word wrap with images and text. • To change the look of text within a document. • To add features to a document to enhance its look and usability. • To use tables within MS Word to present information. • To introduce children to templates. • To consider page layout including heading and columns. 	<ul style="list-style-type: none"> • To be introduced to 2Design and Make and the skills of computer aided design. • To explore the effect of moving points when designing. • To design a 3D Model to fit certain criteria. • To refine and print a model • To understand the need for visual representation when generating and discussing complex ideas. • To understand the uses of a 'concept map'. • To understand and use the correct vocabulary when creating a concept map. • To create a concept map. • To understand how a concept map can be used to retell stories and information. • To create a collaborative concept map and present this to an audience. 	<ul style="list-style-type: none"> • To understand how a device can be programmed to be used as a game controller. • To explore the functions available for the Purple Chip and appraise their uses. • To create a simple quiz program that can be answered using an external device. • To create a program in which an external device can be used to monitor real world conditions. 	<ul style="list-style-type: none"> • To plan a game. • To design and create the game environment. • To design and create the game quest. • To finish and share the game. • To self and peer evaluate.

Touch Type Focus	Words Starting with K & R To use increasing knowledge of a keyboard to be able to type out words beginning with and including a variety of letters.	Words Starting with L & P To use increasing knowledge of a keyboard to be able to type out words beginning with and including a variety of letters.	Words Starting with M & N To use increasing knowledge of a keyboard to be able to type out words beginning with and including a variety of letters.	Paragraphs 1 To use a secure knowledge of the keyboard, including the position of letters, numbers and pieces of punctuation to type out various paragraphs of text.	Paragraphs 2 To use a secure knowledge of the keyboard, including the position of letters, numbers and pieces of punctuation to type out various paragraphs of text.	Paragraphs 3 To use a secure knowledge of the keyboard, including the position of letters, numbers and pieces of punctuation to type out various paragraphs of text.
Vocabulary	Abstraction, Action, Algorithm, concatenation, debug/debugging, decomposition, efficient, flowchart, event, function, input, object, output, nesting, repeat, properties, physical systems, properties, sequence, selection, simplify	Citation, collaborate, communicate, copyright, creative commons licence, encrypt, identity theft, ownership, PEGI ratings, Malware, Phishing, Password, Personal information, spoof, SMART rules, validity, reliable source Arrange, avatar, chart, collaborative, data, database, field, group, record, database report, group, search, sort, statistics	Bulleted lists, caps lock, captions, copy and paste, copyright, creative commons, cursor, document, font, hyperlink, merge cells, page orientation, formatting, readability, text wrapping, word processing tool	2D, 3D, 3D printing, CAD – computer aided design, design brief, points, net, pattern fill, template Concept, concept map, connection, collaborate, node, presentation mode, story mode	Algorithm, Emulator/Simulator, external device, host, input, QR Code, output, sensor	Evaluation, feedback, image, promotion, quest, instructions, texture, screenshot, scene, theme
Skills	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> ♣ 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. 					