Computing Year 5 Long Term Plan

Key

Predominant Areas of Computing		
Information Technology	Computer Science	Digital Literacy

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	**Coding (3)** •Begin to simplify code. • Create a playable game. • Understand what a simulation is. • Program a simulation using 2Code. • Know what decomposition and abstraction are in computer science. • Take a real-life situation, decompose it and think about the level of abstraction. • Understand how to use friction in code • Begin to understand what a function is and how functions work in code.	**Online Safety (6)** •Explain in detail how accurate, safe and reliable the content is on a webpage. •Secure knowledge of online safety rules taught at school. •Gain a greater understanding of the impact that sharing digital content can have. •Demonstrate the safe and respectful use of different online technologies and online services. •Always relate appropriate online behaviour to my right to have personal privacy.	**Word processing (8)** •Know what a word processing tool is for. •Add and edit images to a word document. • Know how to use word wrap with images and text. • Change the look of text within a document. • To add features to a document to enhance its look and usability. • Use tables within MS Word to present information. • Introduce children to templates. • Consider page layout including heading and columns.	**Game Creator (5)** •Plan a game. • Design and create the game environment. • Design and create the game quest. • Finish and share the game. • Self and peer evaluate. •Work collaboratively with others creating solutions to problems using appropriate software.	**Databases (4)** •Learn how to search for information in a database. • Contribute to a class database. • Create a database around a chosen topic.	**Spreadsheets (6)** • Use formulae within a spreadsheet to convert measurements of length and distance. • Use the count tool to answer hypotheses about common letters in use. • Use a spreadsheet to model a reallife problem. • Use formulae to calculate area and perimeter of shapes. • Create formulae that use text variables. • Use a spreadsheet to help plan a school cake sale.

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• Understand what the different variables types are and how they are used differently. • Understand how to create a string. • Understand what concatenation is and how it works. •Make more complex real-life problems into algorithms for a program. •Test and debug my programs as I work. •Convert (translate) algorithms that contain sequence, selection and repetition into code that works. •Use sequence, selection, repetition, and some other coding structures in my code •Organise my code carefully for example, naming variables and using tabs. I know this will help me debug more efficiently.	•Know how to not let my mental wellbeing or others be affected by use of online technologies and services. • Review sources of support when using technology and 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. • 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.			

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•Use logical methods to identify the cause of any bug with support to identify the specific line of code.	• Search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information. •Ensure reliability through using different methods of communication.				
		3D Modelling (4) •Use 2Design and Make and the skills of computer aided design. • Explore the effect of moving points when designing. • Design a 3D Model to fit certain criteria. • Refine and print a model. •Make appropriate improvements to digital work I have created.			**Concept Maps (4)** •Understand the need for visual representation when generating and discussing complex ideas. • Understand the uses of a 'concept map'. • 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

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					stories and information. • Create a collaborative concept map and present this to an audience. •Use collaborative modes such as within 2Connect to work with others and share it.

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