



# 2024-25 COMPUTING OVERVIEW

|        |   |  |   |   |
|--------|---|--|---|---|
| EYFS   | Computational Thinking  | PROGRAMMING A  | DATA AND INFORMATION  | PROGRAMMING B   |
|        |   | <b>All About Instructions</b><br>Receive and give instructions and understand the importance of precise instructions                 | <b>Introduction to Data</b><br>Sort and categorise data   | <b>Programming Bee-Bots</b><br>Learn about directions, experiment with programming a Bee-bot and tinker with hardware                       |
| YEAR 1 | COMP SYSTEMS & NETWORKS   | CREATING MEDIA   | PROGRAMMING A   | PROGRAMMING B   |
|        | <b>Technology Around Us</b><br>Recognising technology in school and using it responsibly.   | <b>Digital Painting</b><br>Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally. | <b>Moving a Robot</b><br>Writing short algorithms and programs for floor robots, and predicting program outcomes.             | <b>Programming Animations</b><br>Designing and programming the movement of a character on screen to tell stories.                           |
| YEAR 2 | COMP SYSTEMS & NETWORKS   | PROGRAMMING A  | DATA AND INFORMATION  | PROGRAMMING B   |
|        | <b>IT Around Us</b><br>Identifying IT and how its responsible use improves our world in school and beyond.  | <b>Robot Algorithms</b><br>Creating and debugging programs, and using logical reasoning to make predictions.                         | <b>Pictograms</b><br>Collecting data in tally charts and using attributes to organise and present data on a computer.         | <b>Programming Quizzes</b><br>Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.   |
| YEAR 3 | COMP SYSTEMS & NETWORKS   | DATA AND INFORMATION   | PROGRAMMING A   | PROGRAMMING B   |
|        | <b>Connecting Computers</b><br>Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. | <b>Branching Databases</b><br>Building and using branching databases to group objects using yes/no questions.                        | <b>Sequencing Sounds</b><br>Creating sequences in a block-based programming language to make music.                           | <b>Events and Actions in Programs</b><br>Writing algorithms and programs that use a range of events to trigger sequences of actions.        |
| YEAR 4 | COMP SYSTEMS & NETWORKS   | CREATING MEDIA   | PROGRAMMING A   | PROGRAMMING B   |
|        | <b>The Internet</b><br>Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.                  | <b>Audio Editing</b><br>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.                     | <b>Repetition in Shapes</b><br>Using a text-based programming language to explore count-controlled loops when drawing shapes. | <b>Repetition in Games</b><br>Using a block-based programming language to explore count-controlled and infinite loops when creating a game. |
| YEAR 5 | COMP SYSTEMS & NETWORKS   | PROGRAMMING A  | DATA AND INFORMATION  | PROGRAMMING B   |
|        | <b>Systems and Searching</b><br>Recognising IT systems around us and how they allow us to search the internet.  | <b>Selection in Physical Computing</b><br>Exploring conditions and selection using a programmable microcontroller.                   | <b>Flat-file Databases</b><br>Using a database to order data and create charts to answer questions.                           | <b>Selection in Quizzes</b><br>Exploring selection in programming to design and code an interactive quiz.                                   |
| YEAR 6 | COMP SYSTEMS & NETWORKS   | DATA AND INFORMATION   | PROGRAMMING A   | PROGRAMMING B   |
|        | <b>Communication</b><br>Identifying and exploring how data is transferred and information is shared online.   | <b>Spreadsheets</b><br>Answering questions by using spreadsheets to organise and calculate data.                                     | <b>Variables in Games</b><br>Exploring variables when designing and coding a game.  | <b>Sensing Movement</b><br>Designing and coding a project that captures inputs from a physical device.                                      |

Additional: Desktop Publishing is taught as an I.T skill throughout KS1 and KS2 whereby children create documents, modify text, images and page layouts for a specified purpose.  
Internet Safety is taught half-termly in every year group from EYFS through to Year 6 using 'Project Evolve – Education for a Connected World' framework.