# Computing Unit Summaries

Units are designed on a spiral curriculum, ensuring each of the themes allow pupils to consolidate and build on prior learning.

| | Computing Systems and Networks | Creating Media | Data and Information | Programming A | Programming B |
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| **EYFS**<br>(Nursery and Reception) | **What is Technology?**<br>Recognising what is, and is not, technology and using it responsibly. | **Digital Mark Making**<br>Using technology to explore digital methods for mark making. | **Grouping Data**<br>Exploring which groups have more and less, sorting objects using shared properties. | **Physical Commands**<br>Using physical movement to follow basic commands, linking them to familiar sequenced actions. | **Introduction to Algorithms**<br>Exploring and following the concept of commands to form basic sequences (algorithms). |
| **Year 1** | **Technology Around Us**<br>Recognising technology in school and using it responsibly. | **Digital Painting**<br>Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.<br><br>**Digital Writing**<br>Using a computer to create and format text, before comparing to writing non-digitally. | **Grouping Data**<br>Exploring object labels, then using them to sort and group objects by properties. | **Moving a Robot**<br>Writing short algorithms and programs for floor robots, and predicting program outcomes. | **Programming Animations**<br>Designing and programming the movement of a character on screen to tell stories. |
| **Year 2** | **Information Technology Around Us**<br>Identifying IT and how its responsible use improves | **Digital Photography**<br>Capturing and changing digital photographs for different purposes. | **Pictograms**<br>Collecting data in tally charts and using attributes to organise and | **Robot Algorithms**<br>Creating and debugging programs, and using logical reasoning to make predictions. | **Programming Quizzes**<br>Designing algorithms and programs that use events to trigger sequences of |

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| | our world in school and beyond. | **Making Music**<br>Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. | present data on a computer. | | code to make an interactive quiz. |
| **Year 3** | **Connecting Computers**<br>Identifying that digital devices have inputs, processes and outputs, and how devices can be connected to make networks. | **Stop-frame Animation**<br>Capturing and editing digital still images to produce a stop-frame animation that tells a story.<br><br>**Desktop Publishing**<br>Creating documents by modifying text, images and page layouts for a specified purpose. | **Branching Databases**<br>Building and using branching databases to group objects using yes/no questions. | **Sequencing Sounds**<br>Creating sequences in a block-based programming language to make music. | **Events and Actions in Programs**<br>Writing algorithms and programs that use a range of events to trigger sequences of actions. |
| **Year 4** | **The Internet**<br>Recognising the internet as a network of networks including the WWW and why we should evaluate online content. | **Audio Production**<br>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.<br><br>**Photo Editing**<br>Manipulating digital images and reflecting on the impact of changes and whether the required purpose is fulfilled. | **Data Logging**<br>Recognising how and why data is collected over time, before using data loggers to carry out an investigation. | **Repetition in Shapes**<br>Using a text-based programming language to explore count-controlled loops when drawing shapes. | **Repetition in Games**<br>Using a block-based programming language to explore count-controlled and infinite loops when creating a game. |

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| **Year 5** | **Systems and Searching**<br>Recognising IT systems around us and how they allow us to search the internet. | **Video Production**<br>Planning, capturing and editing video to produce a short film.<br><br>**Vector Drawing**<br>Creating images in a drawing program by using layers and groups of objects. | **Flat-file Databases**<br>Using a database to order data and crate charts to answer questions. | **Selection in Physical Computing**<br>Exploring conditions and selection using a programmable microcontroller. | **Selection in Quizzes**<br>Exploring selection in programming to design and code an interactive quiz. |
| **Year 6** | **Communication and Collaboration**<br>Identifying and exploring how data is transferred and information is shared online. | **Webpage Creation**<br>Designing and creating webpages, giving consideration to copyright, aesthetics and navigation.<br><br>**3D Modelling**<br>Planning, developing and evaluating 3D computer models of physical objects. | **Introduction to Spreadsheets**<br>Answering questions by using spreadsheets to organise and calculate data. | **Variables in Games**<br>Exploring variables when designing and coding a game. | **Sensing**<br>Designing and coding a project that captures inputs from a physical device. |