

## Teach Computing Overview Years 1-6

|        | Computing systems and networks  | Creating media  | Programming A  | Data and information   | Creating media  | Programming B  |
|--------|---|---|--|--|---|--|
| Year 1 | <p><b>Technology around us</b></p> <p>Recognising technology in school and using it responsibly.</p>                                      | <p><b>Digital painting</b></p> <p>Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.</p> | <p><b>Moving a robot</b></p> <p>Writing short algorithms and programs for floor robots, and predicting program outcomes.</p> | <p><b>Grouping data</b></p> <p>Exploring object labels, then using them to sort and group objects by properties.</p>             | <p><b>Digital writing</b></p> <p>Using a computer to create and format text, before comparing to writing non-digitally.</p>           | <p><b>Programming animations</b></p> <p>Designing and programming the movement of a character on screen to tell stories.</p>                         |
| Year 2 | <p><b>Information technology around us</b></p> <p>Identifying IT and how its responsible use improves our world in school and beyond.</p> | <p><b>Digital photography</b></p> <p>Capturing and changing digital photographs for different purposes.</p>                                     | <p><b>Robot algorithms</b></p> <p>Creating and debugging programs, and using logical reasoning to make predictions.</p>      | <p><b>Pictograms</b></p> <p>Collecting data in tally charts and using attributes to organise and present data on a computer.</p> | <p><b>Digital music</b></p> <p>Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</p> | <p><b>Programming quizzes</b></p> <p>Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p> |

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|---------------|---|---|---|--|---|---|
| <b>Year 3</b> | <p><b>Connecting computers</b><br/>Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</p> | <p><b>Stop-frame animation</b><br/>Capturing and editing digital still images to produce a stop-frame animation that tells a story.</p> | <p><b>Sequencing sounds</b><br/>Creating sequences in a block-based programming language to make music.</p>                           | <p><b>Branching databases</b><br/>Building and using branching databases to group objects using yes/no questions.</p>                        | <p><b>Desktop publishing</b><br/>Creating documents by modifying text, images, and page layouts for a specified purpose.</p>                        | <p><b>Events and actions in programs</b><br/>Writing algorithms and programs that use a range of events to trigger sequences of actions.</p>        |
| <b>Year 4</b> | <p><b>The internet</b><br/>Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</p>                  | <p><b>Audio production</b><br/>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</p>             | <p><b>Repetition in shapes</b><br/>Using a text-based programming language to explore count-controlled loops when drawing shapes.</p> | <p><b>Data logging</b><br/>Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</p> | <p><b>Photo editing</b><br/>Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</p> | <p><b>Repetition in games</b><br/>Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</p> |

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|---------------|--|--|--|--|---|---|
| <b>Year 5</b> | <p><b>Systems and searching</b><br/>Recognising IT systems in the world and how some can enable searching on the internet.</p> | <p><b>Video production</b><br/>Planning, capturing, and editing video to produce a short film.</p>                                 | <p><b>Selection in physical computing</b><br/>Exploring conditions and selection using a programmable microcontroller.</p> | <p><b>Flat-file databases</b><br/>Using a database to order data and create charts to answer questions.</p>              | <p><b>Introduction to vector graphics</b><br/>Creating images in a drawing program by using layers and groups of objects.</p> | <p><b>Selection in quizzes</b><br/>Exploring selection in programming to design and code an interactive quiz.</p> |
| <b>Year 6</b> | <p><b>Communication and collaboration</b><br/>Exploring how data is transferred by working collaboratively online.</p>         | <p><b>Webpage creation</b><br/>Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.</p> | <p><b>Variables in games</b><br/>Exploring variables when designing and coding a game.</p>                                 | <p><b>Introduction to spreadsheets</b><br/>Answering questions by using spreadsheets to organise and calculate data.</p> | <p><b>3D modelling</b><br/>Planning, developing, and evaluating 3D computer models of physical objects.</p>                   | <p><b>Sensing movement</b><br/>Designing and coding a project that captures inputs from a physical device.</p>    |