



SHERRIER CE PRIMARY COMPUTING NATIONAL CURRICULUM COVERAGE

Computing overview

| | Autumn | | Spring | | Summer | |
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| | Computing systems and network | Creating media A | Programming A | Data and information | Creating media B | Programming B |
| EYFS | <ul style="list-style-type: none"> • Show resilience and perseverance in the face of a challenge. • Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of ‘screen time’. • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • Explore, use and refine a variety of artistic effects to express their ideas and feelings. <p>ELG:</p> <ul style="list-style-type: none"> • Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. | | | | | |
| Year 1 | <p><u>Technology around us</u></p> <p>Recognising technology in school and using it responsibly.</p> | <p><u>Digital painting</u></p> <p>Choosing appropriate tools in a program to create art and making comparisons with working non-digitally.</p> | <p><u>Moving a robot</u></p> <p>Writing short algorithms and programs for floor robots and predicting program outcomes</p> | <p><u>Grouping data</u></p> <p>Explore object labels, then using them to sort and group objects by properties.</p> | <p><u>Digital writing</u></p> <p>Using a computer to create and format text, before comparing to writing non-digitally.</p> | <p><u>Programming animations</u></p> <p>Designing and programming the movement of a character on screen to tell stories.</p> |
| Year 2 | <p><u>Information technology around us</u></p> <p>Identifying IT and how it is used to improve our school and beyond.</p> | <p><u>Digital photography</u></p> <p>Capturing and changing digital photographs for different purposes.</p> | <p><u>Robot algorithms</u></p> <p>Creating and debugging programs and using logical reasoning to make predictions.</p> | <p><u>Pictograms</u></p> <p>Collecting data in tally charts and using attributes to organise and present data on a computer.</p> | <p><u>Making music</u></p> <p>Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</p> | <p><u>Programming quizzes</u></p> <p>Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p> |
| Year 3 | <p><u>Connecting computers</u></p> <p>Identifying that digital devices and inputs, and outputs, and how devices can be</p> | <p><u>Stop-frame animation</u></p> <p>Capturing and editing digital still images to produce a stop-frame animation that tells a story</p> | <p><u>Sequencing sounds</u></p> <p>Creating sequences in a block-based programming language to make music.</p> | <p><u>Branching databases</u></p> <p>Building and using branching databases to group objects using yes.no questions.</p> | <p><u>Desktop publishing</u></p> <p>Creating documents by modifying text, images and page layouts for a specified purpose.</p> | <p><u>Events and actions in programs</u></p> <p>Writing algorithms and programs that use a range of events to trigger sequences of actions.</p> |

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| | connected to make networks | | | | | |
| Year 4 | <p><u>The internet</u></p> <p>Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</p> | <p><u>Audio editing</u></p> <p>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</p> | <p><u>Repetition in shapes</u></p> <p>Using a text-based programming language to explore count-controlled loops when drawing shapes.</p> | <p><u>Data logging</u></p> <p>recognise how and why data is collected over time, before using data loggers to carry out an investigation.</p> | <p><u>Photo editing</u></p> <p>Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</p> | <p><u>Repetition in games</u></p> <p>Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</p> |
| Year 5 | <p><u>Sharing information</u></p> <p>Identifying and exploring how information is shared between digital systems.</p> | <p><u>Video editing</u></p> <p>Planning, capturing and editing video to produce a short film.</p> | <p><u>Selection in physical computing</u></p> <p>Exploring conditions and selection using a programmable microcontroller</p> | <p><u>Flat-file databases</u></p> <p>Using a database to order data and create charts to answer questions.</p> | <p><u>Vector drawing</u></p> <p>Creating images in a drawing program by using layers and groups of objects.</p> | <p><u>Selection in quizzes</u></p> <p>Exploring selection in programming to design and code an interactive quiz.</p> |
| Year 6 | <p><u>Internet communication</u></p> <p>Recognising how the WWW can be used to communicate and be searched to find information.</p> | <p><u>Webpage creation</u></p> <p>Designing and creative webpages, considering copyright, aesthetics, and navigation.</p> | <p><u>Variables in games</u></p> <p>Exploring variables when designing and coding a game.</p> | <p><u>Introduction to spreadsheets</u></p> <p>Answering questions by using spreadsheets to organise and calculate data.</p> | <p><u>3D modelling</u></p> <p>Planning, developing and evaluating 3D computer models of physical objects.</p> | <p><u>Sensing</u></p> <p>Designing and coding a project that captures inputs from a physical device</p> |