



Lickey Hills Primary School and Nursery Curriculum Overview - Computing

	AUTUMN		SPRING		SUMMER	
YEAR 1	Computing systems and networks - Technology around us <i>Children will know how to recognise technology in school and use it responsibly.</i>	Programming - Moving a robot <i>Children will know how to write short algorithms and programs for floor robots, and predict program outcomes.</i>	Creating media - Digital painting <i>Children will know how to choose appropriate tools in a program to create art, and make comparisons with working non-digitally.</i>	Programming - Introduction to animation <i>Children will know how to design and program the movement of a character on screen to tell stories.</i>	Data and information - Grouping data <i>Children will know how to explore object labels, then using them to sort and group objects by properties.</i>	Creating media - Digital writing <i>Children will know how to use a computer to create and format text, before comparing it to writing non-digitally.</i>
YEAR 2	Computing systems and networks - IT around us <i>Children will know how to identify Information Technology and how its responsible use improves our world in school and beyond.</i>	Creating media - Digital photography <i>Children will know how to capture and change digital photographs for different purposes.</i>	Programming - Robot algorithms <i>Children will know how to create and debug programs, and use logical reasoning to make predictions.</i>	Data and information - Pictograms <i>Children will know how to collect data in tally charts and use attributes to organise and present data on a computer.</i>	Creating media - Making music <i>Children will know how to use a computer as a tool to explore rhythms and melodies, before creating a musical composition.</i>	Programming - Programming quizzes <i>Children will know how to design algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</i>
YEAR 3	Computing systems and networks - Connecting computers <i>Children will know how to identify that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</i>	Creating media - Stop-frame animation <i>Children will know how to capture and edit digital still images to produce a stop-frame animation that tells a story.</i>	Programming - Sequencing sounds <i>Children will know how to create sequences in a block-based programming language to make music.</i>	Data and information - Branching databases <i>Children will know how to build and use branching databases to group objects using yes/no questions.</i>	Creating media - Desktop publishing <i>Children will know how to create documents by modifying text, images, and page layouts for a specified purpose.</i>	Programming - Events and actions in programs <i>Children will know how to write algorithms and programs that use a range of events to trigger sequences of actions.</i>
YEAR 4	Computing systems and networks - The internet <i>Children will know how to recognise the internet as a network of networks including the WWW, and why we should evaluate online content.</i>	Creating media - Audio editing <i>Children will know how to capture and edit audio to produce a podcast, ensuring that copyright is considered.</i>	Programming - Repetition in shapes <i>Children will know how to use a text-based programming language to explore count-controlled loops when drawing shapes.</i>	Data and information - Data logging <i>Children will know how to recognise how and why data is collected over time, before using data loggers to carry out an investigation.</i>	Creating media - Photo editing <i>Children will know how to manipulate digital images, and reflect on the impact of changes and whether the required purpose is fulfilled.</i>	Programming - Repetition in games <i>Children will know how to use a block-based programming language to explore count-controlled and infinite loops when creating a game.</i>
YEAR 5	Computing systems and networks - Sharing information <i>Children will know how to identify and explore how information is shared between digital systems.</i>	Creating media - Video editing <i>Children will know how to plan, capture and edit video to produce a short film.</i>	Programming - Selection in physical computing <i>Children will know how to explore conditions and selection using a programmable microcontroller.</i>	Data and information - Flat-file databases <i>Children will know how to use a database to order data and create charts to answer questions.</i>	Creating media - Vector drawing <i>Children will know how to create images in a drawing program by using layers and groups of objects.</i>	Programming - Selection in quizzes <i>Children will know how to explore selection in programming to design and code an interactive quiz.</i>
YEAR 6	Computing systems and networks - Internet communication <i>Children will know how to recognise how the WWW can be used to communicate and be searched to find information.</i>	Creating media - Webpage creation <i>Children will know how to design and create webpages, giving consideration to copyright, aesthetics, and navigation.</i>	Programming - Variables in games <i>Children will know how to explore variables when designing and coding a game.</i>	Data and information - Introduction to spreadsheets <i>Children will know how to answer questions by using spreadsheets to organise and calculate data.</i>	Creating media - 3D modelling <i>Children will know how to plan, develop, and evaluate 3D computer models of physical objects.</i>	Programming - Sensing <i>Children will know how to design and code a project that captures inputs from a physical device.</i>