



Computing at Langley Park Primary School

Long Term Plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	ELG: Understanding the World					
Topic structure	Computing Systems and Networks	Creating Media	Programming A	Data and Information	Creating Media	Programming B
Year 1	<u>Technology around us</u> Recognising technology in school and using it responsibly.	<u>Digital painting</u> Choosing appropriate tools in a program to create art, and making comparisons with working nondigitally	<u>Moving a robot</u> Writing short algorithms and programs for floor robots, and predicting program outcomes.	<u>Grouping data</u> Exploring object labels, then using them to sort and group objects by properties.	<u>Digital writing</u> Using a computer to create and format text, before comparing to writing non-digitally.	<u>Programming animations</u> Designing and programming the movement of a character on screen to tell stories.
Year 2	<u>Information technology around us</u> Identifying IT and how its responsible use improves our world in school and beyond.	<u>Digital photography</u> Capturing and changing digital photographs for different purposes.	<u>Robot algorithms</u> Creating and debugging programs, and using logical reasoning to make predictions.	<u>Pictograms</u> Collecting data in tally charts and using attributes to organise and present data on a computer.	<u>Digital music</u> Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	<u>Programming quizzes</u> Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.
Year 3	<u>Connecting computers</u> Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks	<u>Stop-frame animation</u> Capturing and editing digital still images to produce a stop frame animation that tells a story	<u>Sequencing sounds</u> Creating sequences in a block-based programming language to make music.	<u>Branching databases</u> Building and using branching databases to group objects using yes/no questions.	<u>Desktop publishing</u> Creating documents and modifying text, images and page layouts for a specific purpose.	<u>Events and actions in programs</u> Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	<u>The internet</u> Recognising that the internet is a network of networks including the WWW, and why we should evaluate online content.	<u>Audio production</u> Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	<u>Repetition in shapes</u> Using a text-based programming language to explore count-controlled loops when drawing shapes.	<u>Data logging</u> Recognising how and why data is collected over time, before using data loggers to carry out an investigation,	<u>Photo editing</u> Manipulating digital images, and reflecting on the impact of the changes and whether the required purpose is fulfilled.	<u>Repetition in games</u> Using a block-based programming language to explore count-controlled and infinite loops when creating a game.
Year 5	<u>Systems and searching</u> Recognising IT systems in the world and how some can enable searching on the internet.	<u>Video production</u> Planning, capturing, and editing video to produce a short film.	<u>Selection in physical computing</u> Exploring conditions and selection using a programmable microcontroller	<u>Flat-file databases</u> Using a database to order data and create charts to answer questions.	<u>Introduction to vector graphics</u> Creating images in a drawing program by using layers and groups of objects.	<u>Selection in quizzes</u> Exploring selection in programming to design and code an interactive quiz.
Year 6	<u>Communication and collaboration</u> Exploring how data is transferred by working collaboratively online.	<u>Webpage creation</u> Designing and creating webpages, giving consideration to copyright, aesthetics and navigation.	<u>Variables in games</u> Exploring variables when designing and coding a game.	<u>Introduction to spreadsheets</u> Answering questions by using spreadsheets to organise and calculate data.	<u>3D modelling</u> Planning, developing, and evaluation 3D computer models of physical objects.	<u>Sensing movement</u> Designing and coding a project that captures inputs from physical devices.