



ALL SAINTS UPTON COMPUTING LONG TERM PLAN 2023 - 2024

Computing Overview Reception to Year 6

Rec	<p>Computing in the EYFS is centred around play-based, unplugged (no computer) activities that focus on building children’s listening skills, curiosity and creativity and problem solving.</p> <p>Technology in the Early Years means for example:</p> <ul style="list-style-type: none"> ●taking a photograph with a camera or tablet ●searching for information on the internet ●playing games on the interactive whiteboard ●exploring an old typewriter or other mechanical toys ●using a Beebot ●watching a video clip ●listening to music ●controlling toys with a remote control ●using technology though role play eg mobile phone, camera, microwave, ovens, broken devices ●using technology equipment to measure units of time eg stop watches. 					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 1	<p><u>Technology around us</u> Recognising technology in school and using it responsibly</p>	<p><u>Digital painting</u> Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.</p>	<p><u>Moving a robot</u> Writing short algorithms and programs for floor robots, and predicting program outcomes</p>	<p><u>Grouping data</u> Exploring object labels, then using them to sort and group objects by properties.</p>	<p><u>Digital writing</u> Using a computer to create and format text, before comparing to writing non-digitally.</p>	<p><u>Programming animations</u> Designing and programming the movement of a character on screen to tell stories.</p>

Year 2	<p><u>Information technology around us</u> Identifying IT and how its responsible use improves our world in school and beyond.</p>	<p><u>Digital photography</u> Capturing and changing digital photographs for different purposes</p>	<p><u>Robot algorithms</u> Creating and debugging programs, and using logical reasoning to make predictions.</p>	<p><u>Pictograms</u> Collecting data in tally charts and using attributes to organise and present data on a computer.</p>	<p><u>Digital music</u> Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</p>	<p><u>Programming quizzes</u> 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> Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</p>	<p><u>Stop-frame animation</u> Capturing and editing digital still images to produce a stop-frame animation that tells a story.</p>	<p><u>Sequencing sounds</u> Creating sequences in a block-based programming language to make music.</p>	<p><u>Branching databases</u> Building and using branching databases to group objects using yes/no questions.</p>	<p><u>Desktop publishing</u> Creating documents by modifying text, images, and page layouts for a specified purpose.</p>	<p><u>Events and actions in programs</u> Writing algorithms and programs that use a range of events to trigger sequences of actions.</p>
Year 4	<p><u>The internet</u> Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</p>	<p><u>Audio production</u> Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</p>	<p><u>Repetition in shapes</u> Using a text-based programming language to explore count-controlled loops when drawing shapes.</p>	<p><u>Data logging</u> Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</p>	<p><u>Photo editing</u> Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</p>	<p><u>Repetition in games</u> Using a block-based programming language to explore count-controlled and infinite loops when creating a game</p>

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 gam	<u>Introduction to spreadsheets</u> Answering questions by using spreadsheets to organise and calculate data	<u>3D modelling</u> Planning, developing, and evaluating 3D computer models of physical objects.	<u>Sensing movement</u> Designing and coding a project that captures inputs from a physical device.

Main Strands

Computing Systems, Networks and Online Safety- CS (Computer Science), NW (Networks), SS (Safety and Security).
Creating Media- CM (Creating Media), DD (Design and Development), ET (Effective use of Tools), IT (Impact of Technology).
Data and Information- DI (Data and Information).
Programming- AL (Algorithms), PG (Programming).