



St. Joseph's Catholic Primary School

Computing: Long Term Overview



EYFS	<p>Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, which focuses on the learning and development of children from birth to age five, we provide many opportunities for young children to use technology to solve problems and produce creative outcomes. In particular, many areas of the framework provide opportunities for pupils to develop their ability to use computational thinking effectively.</p> <p>These are the skills that will be taught and embedded through teaching as well as in continuous provision:</p> <ol style="list-style-type: none"> 1. An awareness of different technologies in and out of school, the cause and effect of technology, digital storage of information- photography, digital writing and research information and input and outputs of devices 2. The ability to use technology to express creatively and constructively make maps from stories follow simple maps in play <p>They will work independently and collaboratively, sharing ideas, resources and skills via:</p> <ul style="list-style-type: none"> • iPads- accessing apps and games • NumBots • Online safety and how to use equipment safely • Take a photo or video using the iPad • Wide range of resources available for children to select and use independently
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Class	Cycle	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
Year 1 / 2	A	Computing Systems and Networks: Technology around us Children will recognise technology in school and use it responsibly.	Creating Media: Digital painting Children will choose appropriate tools in a program to create art as well as making comparisons with working non-digitally.	Programming A: Moving a robot Children will write short algorithms and programs for floor robots and predict program outcomes.	Data and Information: Grouping data Children will explore object labels, then use these to sort and group objects by properties.	Data and Information: Digital writing Children will use a computer to create and format text, before comparing to writing non-digitally.	Programming B: Programming animations Children will design and program the movement of a character on screen to tell stories.
	B	Computing Systems and Networks: IT around us	Creating Media: Digital photography	Programming A: Robot algorithms	Data and Information: Pictograms	Data and Information: Digital music	Programming B: Programming quizzes

		Children will continue to identify IT and how its responsible use improves our world in school and beyond.	Children will capture and change digital photographs for different purposes.	Children will create and debug programs and using logical reasoning to make predictions.	Children will collect data in tally charts and organise and present data on a Computer.	Children will use a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Children will design algorithms and programs that use events to trigger sequences of.
Year 3 / 4	A	<p>Computing Systems and Networks: Connecting computers</p> <p>Children will identify that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</p>	<p>Creating Media: Stop frame animation</p> <p>Capturing and editing digital still images to produce a stop-frame animation that tells a story.</p>	<p>Programming A: Sequencing sounds</p> <p>Creating sequences in a block-based programming language to make music.</p>	<p>Data and Information: Branching databases</p> <p>Building and using branching databases to group objects using yes/no questions.</p>	<p>Data and Information: Desktop publishing</p> <p>Creating documents by modifying text, images, and page layouts for a specified purpose.</p>	<p>Programming B: Events and actions in programs</p> <p>Writing algorithms and programs that use a range of events to trigger sequences of actions.</p>
	B	<p>Computing Systems and Networks: The internet</p> <p>Children will recognise the internet as a network of networks (including the WWW), and why we should evaluate online content.</p>	<p>Creating Media: Audio production</p> <p>Children will capture and edit audio to produce a podcast, ensuring that copyright is considered.</p>	<p>Programming A: Repetition in shapes</p> <p>Children will use text-based programming language to explore count-controlled loops when drawing shapes.</p>	<p>Data and Information: Data logging</p> <p>Children will recognise how and why data is collected over time, before using data loggers to carry out an investigation.</p>	<p>Data and Information: Photo editing</p> <p>Children will manipulate digital images and reflect on the impact of changes and the purpose of these.</p>	<p>Programming B: Repetition in games</p> <p>Children will use a block-based programming language to explore count-controlled and infinite loops when creating a game.</p>
Year 5 / 6	A	<p>Computing Systems and Networks:</p>	<p>Creating Media: Video production</p>	<p>Programming A: Selection in physical Computing</p>	<p>Data and Information: Flat-file databases</p>	<p>Data and Information: Introduction to vector graphics</p>	<p>Programming B: Selection in quizzes</p>

		<p>Sharing information</p> <p>Children will recognise IT systems around us and how they allow us to search the internet.</p>	<p>Children will plan, capture, and edit videos to produce a short film.</p>	<p>Children will explore conditions and selection using a programmable microcontroller.</p>	<p>Children will use a database to order data and create charts to answer questions.</p>	<p>Children will create images in a drawing program by using layers and groups of objects.</p>	<p>Children will explore selection in programming to design and code an interactive quiz.</p>
B	<p>Computing Systems and Networks: Communication</p> <p>Children will identify and explore how data is transferred and information is shared online.</p>	<p>Creating Media: Webpage creation</p> <p>Children will design and create webpages, giving consideration to copyright, style, and navigation.</p>	<p>Programming A: Variables in games</p> <p>Children will explore variables when designing and coding a game.</p>	<p>Data and Information: Introduction to Spreadsheets</p> <p>Children will answer questions by using spreadsheets to organise and calculate data.</p>	<p>Creating Media: 3D modelling</p> <p>Children will plan, develop and evaluate 3D computer models of physical objects.</p>	<p>Programming B: Sensing movement</p> <p>Children will design and code a project that captures inputs from a physical device.</p>	