

Computing Curriculum for St Erth Primary



Phase	Cycle	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS		Computing isn't in the EYFS curriculum Teachers to go by a needs met approach, using technology where it fits in with their current areas of learning.					
KS1	A	<p>Connecting systems and networks Technology around us (Y1) What technology do we find in school and how do we use it responsibly? Recognising technology in school and using it responsibly (Paintz.app)</p>	<p>Creating Media Digital painting (Y1) How can we create art digitally and how does it compare with non-digital art? Choosing appropriate tools in a program to create art and making comparisons with working non-digitally. (Microsoft Paint or similar)</p>	<p>Creating Media Digital Photography (2) How can you change photographs for different purposes Capturing and changing digital photographs for different purposes (iPads and pixlr.com)</p>	<p>Data and information Grouping Data (1) How can we sort and group objects? Exploring object labels, then using them to sort and group objects by properties</p>	<p>Programming Moving a robot (1) How can we write an algorithm to make a floor robot move? Creating and debugging programs and using logical reasoning to make predictions. (Bee-bot, Blue-bot)</p>	<p>Programming Robot algorithms (2) How can we create and debug programs? Creating and debugging programs and using logical reasoning to make predictions. (Bee-bot, Blue-bot)</p>
KS1	B	<p>Connecting systems and networks Technology around us (2) How can IT improve our world in school and beyond? Information technology around us Identifying IT and how its responsible use improves our world in school and beyond. (PowerPoint)</p>	<p>Creating Media Digital writing (1) How can we use a computer to create text and how is this different from non-digital text? Using a computer to create and format text, before comparing to writing non-digitally. (Microsoft Word)</p>	<p>Creating Media Digital music (2) How can we use a computer to explore rhythms and melodies? Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. (Chrome Music Lab)</p>	<p>Data and information Pictograms (2) How can we collect and organize data on a computer? Collecting data in tally charts and using attributes to organise and present data on a computer. (j2data pictogram)</p>	<p>Programming Introduction to animations (1) How can we program a character to tell a story? Designing and programming the movement of a character on screen to tell stories. (Laptops - Scratch Jnr)</p>	<p>Programming Programming quizzes (2) How can we design a program to create an interactive quiz? Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz. (Laptops – Scratch Jnr)</p>
LKS2	A	<p>Connecting systems and networks Connecting Computers (3) What devices have inputs, processes, and outputs? Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks (Painting program)</p>	<p>Creating Media Desktop Publishing (3) How can we create documents for a specific purpose? Creating documents by modifying text, images, and page layouts for a specified purpose. (Canva.com)</p>	<p>Programming Sequencing Sounds (3) How can we use programming language to make music? Creating sequences in a block-based programming language to make music (Scratch)</p>	<p>Data and information Data logging (4) How can we collect data over time and why is it useful? Recognising how and why data is collected over time, before using data loggers to carry out an investigation. (Data logger or similar)</p>	<p>Creating Media Audio Production (4) How can we capture and edit audio produce a podcast? Capturing and editing audio to produce a podcast, ensuring that copyright is considered. (Laptops-audacity)</p>	<p>Programming Events and actions in programs (3) How can we write programs for a sequence of actions? Writing algorithms and programs that use a range of events to trigger sequences of actions. (Scratch)</p>
LKS2	B	<p>Connecting systems and networks The internet (4) What is the internet and why should we evaluate content? Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. (Various websites)</p>	<p>Creating Media Stop frame animation (3) How can we use images to produce an animation? Capturing and editing digital still images to produce a stop-frame animation that tells a story. (iMotion)</p>	<p>Programming Repetition in Shapes (4) How can we use programming language for controlled loops when drawing shapes? Using a text-based programming language to explore count-controlled loops when drawing shapes. (FMSLogo/Turtle academy)</p>	<p>Data and information Branching databases (3) How can we use a branching database to group objects? Building and using branching databases to group objects using yes/no questions. (j2data Branch and Pictogram)</p>	<p>Creating Media Photo editing (4) How can we manipulate images to fulfil a purpose? Manipulating digital images and reflecting on the impact of changes and whether the required purpose is fulfilled. (Laptops-Paint.NET)</p>	<p>Programming Repetition in games (4) How can we create infinite loops using block-based programming language? Using a block-based programming language to explore count-controlled and infinite loops when creating a game. (Scratch)</p>
UKS2	A	<p>Connecting systems and networks Systems and searching (5) What IT systems are around the world and how do they help us search the internet? Recognising IT systems in the world and how some can enable searching on the internet. (PowerPoint)</p>	<p>Programming Selection in physical computing (5) How can we program a microcontroller? Exploring conditions and selection using a programmable microcontroller. (Crumble controller)</p>	<p>Creating Media 3D modelling (6) How can we develop a 3D computer model of a physical object? Planning, developing, and evaluating 3D computer models of physical objects. (Tinkercad)</p>	<p>Data and information Flat file databases (5) How can we use a database to answer questions? Using a database to order data and create charts to answer questions. (j2data Database)</p>	<p>Creating Media Introduction to vector graphics (5) How can use layers to create digital images? Creating images in a drawing program by using layers and groups of objects. (Google Drawings/Publisher)</p>	<p>Programming Selection in quizzes (5) How can we design and code an interactive quiz? Exploring selection in programming to design and code an interactive quiz. (Scratch)</p>
UKS2	B	<p>Connecting systems and networks Communication and collaboration (6) How is data transferred to allow us to work collaboratively? Exploring how data is transferred by working collaboratively online. (PowerPoint)</p>	<p>Creating Media Website creation (6) How can we design and create a webpage? Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation. (Google sites)</p>	<p>Programming Variables in Games (6) How can we create variables to code a game? Exploring variables when designing and coding a game. (Scratch)</p>	<p>Programming Sensing Movement (6) How can we code a project that uses inputs from a physical device? Designing and coding a project that captures inputs from a physical device (microbits)</p>	<p>Data and information Introduction to spreadsheets (6) How can we use a spreadsheet to organise and calculate data? Answering questions by using spreadsheets to organise and calculate data. (Excel)</p>	<p>Creating Media Video Production (5) How can we produce a short film? Planning, capturing, and editing video to produce a short film. (Microsoft Photos)</p>

Information Technology: **Creating Media**; **Data and Information**

Computer Science: **Programming**

Digital Literacy: **Connecting systems and networks**; Online Safety is taught throughout the school as a separate element using Common Sense Media