



Dream big, shine bright

St NICHOLAS

C of E Primary School, Alcester



COMPUTING LONG TERM PLAN

	Autumn	Spring	Summer
Reception	What is a computer?	Digital Art	Controlling a digital device
Year 1	Technology around us Recognising technology in school and using it responsibly Digital Painting Choosing appropriate tools in a program to create art.	Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes. Grouping Data Exploring object labels, then using them to sort and group objects by properties.	Digital Writing Using a computer to create and format text, before comparing to writing non- digitally. Introduction to animation Designing and programming the movement of a character on screen to tell stories.
Year 2	IT around us Identifying IT and how its responsible use improves our world. Digital photography Capturing and changing digital photographs for different purposes beyond.	Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions. Pictograms Collecting data in tally charts and using attributes to organise and present data.	Making music Using a computer as a tool to explore rhythms and melodies. Introduction to quizzes Designing algorithms and programs that use events to trigger sequences of code.
Year 3	Connecting Computers Identifying that digital devices have inputs, processes, and outputs. Stop Frame Animation Capturing and editing digital still images to produce a stop-frame animation.	Sequences sounds Creating sequences in a block-based programming language to make music. Branching databases Building and using branching databases to group objects using yes/no questions	Desktop Publishing Creating documents by modifying text, images, and page layouts. Events and actions Writing algorithms and programs that use a range of events to trigger sequences of actions.



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Year 4	The Internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. Audio Production Capturing and editing audio to produce a podcast.	Repetition in shapes Using a text-based programming language to explore count-controlled loops. Data Logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation	Photo editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled. Repetition in games Using a block-based programming language to explore count-controlled and infinite loops when creating a game.
Year 5	Systems and Searching Identifying and exploring how information is shared between digital systems. Video Production Planning, capturing, and editing video to produce a short film.	Selection in physical computing Exploring conditions and selection using a programmable microcontroller. Introduction to vector graphics Creating images in a drawing program by using layers and groups of objects.	Selection in quizzes Exploring selection in programming to design and code an interactive quiz Flat-file databases Using a database to order data and create charts to answer questions
Year 6	Communication and Collaboration Recognising how the WWW can be used to communicate and be searched to find information Web page creation Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.	Variables in games Exploring variables when designing and coding a game Spreadsheets Answering questions by using spreadsheets to organise and calculate data.	3D Modelling Planning, developing, and evaluating 3D computer models of physical objects. Sensing Movement Building and testing a program within a new programming environment, before transferring it to a micro:bit.