

Cudham Primary School Computing Planning Rationale



Sunflower Class



Cycle A

Unit	Year Group	Rationale
Technology Around Us/ IT Around Us	Year 1 & 2	This unit is taught first to establish safe technology use. It builds on EYFS experiences and develops understanding of technology in everyday life. Year 2 pupils compare a wider range of devices and their uses.
Digital Painting	Year 1	This unit builds on EYFS drawing and painting skills while introducing digital creative tools. Year 2 pupils make purposeful design choices and evaluate their work.
Moving a Robot	Year 1	This is an introduction algorithms through practical programming. Children build on sequencing and problem-solving from EYFS. Year 2 pupils predict, debug and plan more complex routes.
Grouping Data	Years 1	Introduces organising information, building on EYFS sorting skills and supporting mathematical thinking. Year 2 pupils justify and compare grouping choices.
Robot Algorithms	Year 2	Builds on <i>Moving a Robot</i> by developing programming and debugging skills. Year 1 pupils are supported with practical resources where needed.
Digital Music	Year 2	Builds on rhythm and pulse from Music lessons while introducing digital composition. Year 2 pupils create more purposeful compositions.

Cycle B

Unit	Year Group	Rationale
Technology Around Us/ IT Around Us	Year 1 & 2	This unit is taught first to establish safe technology use. It builds on EYFS experiences and develops understanding of technology in everyday life. Year 2 pupils compare a wider range of devices and their uses.
Digital Writing	Year 1	Builds on EYFS keyboard and mark-making skills while supporting early writing. Year 2 pupils format and present text independently.
Programming Animations	Year 1	Introduces block-based programming through animation. Pupils apply sequencing skills from earlier learning or previous experiences, with Year 2 pupils creating more complex programs.
Pictograms	Year 2	Develops data handling by representing and interpreting information. Builds on pupils' previous sorting and counting experiences, with Year 2 pupils explaining patterns and drawing conclusions.
Programming Quizzes	Year 2	Extends programming through interactive quizzes using sequence and events. Year 2 pupils debug independently and evaluate their programs, while Year 1 pupils are supported as needed.
Digital Photography	Year 2	Applies digital media skills through photography and image editing, building on pupils' experience of using cameras and tablets. Year 2 pupils consider composition and audience, while Year 1 pupils receive practical support.

Honeysuckle Class

Cycle A

Unit	Year Group	Rationale
Connecting Computers & The Internet	Year 3 & 4	Introduces computer systems, networks and the internet, building on pupils' understanding of digital devices from KS1. Year 4 pupils explore how information is shared online safely and effectively.
Desktop Publishing	Year 3	Builds on earlier <i>Digital writing</i> in KS1 by introducing page layout and design. Year 4 pupils apply presentation skills more independently across the curriculum.
Sequencing Sounds	Year 3	Develops programming through creating musical sequences in Scratch. Builds on prior programming experiences in KS1, with Year 4 pupils applying greater independence and debugging skills.
Branching Databases	Year 3	Develops data handling by organising and classifying information. Builds on earlier sorting activities, with Year 4 pupils making more complex decisions about data.
Repetition in Games	Year 4	Introduces repetition in programming to create more efficient code. All pupils build on previous programming experiences while developing logical thinking and debugging skills.
Audio Production	Year 4	Develops digital media skills through recording and editing audio. Builds on earlier media work in <i>Desktop Publishing</i> , with pupils creating content for a clear purpose and audience.

Cycle B

Unit	Year Group	Rationale
Connecting Computers & The Internet	Year 3 & 4	Introduces computer systems, networks and the internet, building on pupils' understanding of digital devices from KS1. Year 4 pupils explore how information is shared online safely and effectively.
Stop Frame Animation	Year 3	Develops creative media skills through animation, building on earlier work with digital images and storytelling. Year 4 pupils refine planning and evaluation skills.
Events and Actions	Year 3	Introduces event-driven programming using Scratch. Builds on pupils' programming experiences, with Year 4 pupils creating and debugging increasingly complex programs.
Data Logging	Year 4	Introduces pupils to collecting and analysing data using digital devices. Builds on earlier data handling and sorting experiences, with Year 3 pupils focusing on collecting and interpreting simple data while Year 4 pupils analyse patterns and draw conclusions.
Repetition in Shapes	Year 4	Introduces repetition to create efficient programs and repeated patterns. Builds on earlier programming experiences, with Year 3 pupils exploring simple repeat commands while Year 4 pupils apply algorithms, debugging and decomposition to solve more complex problems.
Photo Editing	Year 4	Develops image editing skills by modifying and enhancing digital photographs. Builds on earlier media experiences in <i>Stop Frame Animation</i> , with Year 3 pupils using basic editing tools while Year 4 pupils making purposeful choices about audience, accuracy and presentation.

Forget Me Not Class

Cycle A

Unit	Year Group	Rationale
Systems and Searching	Year 5	Develops pupils' understanding of computer systems, search engines and online information. Builds on earlier learning in LKS2 about networks and the internet, with Year 6 pupils evaluating how search results are ranked and refined.
Introduction to Vector Graphics	Year 5	Develops digital design skills using vector graphics. Builds on earlier media experiences, with Year 6 pupils creating more complex designs using layers and precision tools.
Selection in Quizzes	Year 5	Introduces selection in programming through interactive quizzes. Builds on earlier programming experiences, with Year 6 pupils designing more complex algorithms and debugging independently.
Flat File Databases	Year 5	Develops data handling by organising, searching and analysing information. Builds on previous data work, with Year 6 pupils using more complex searches, sorting and filtering.
Sensing Movement	Year 6	Introduces physical computing by using sensors and inputs to control programs. Builds on earlier programming experiences, with Year 5 pupils exploring simple inputs while Year 6 pupils design, test and refine more complex solutions.
3D Modelling	Year 6	Develops digital design through creating three-dimensional models. Builds on earlier media and design skills, with Year 5 pupils constructing simple models while Year 6 pupils creating more detailed designs for a specific purpose.

Cycle B

Unit	Year Group	Rationale
Communication and Collaboration	Year 6	Develops understanding of how digital communication and collaboration work online. Builds on pupils' previous knowledge of networks and online safety, with Year 6 pupils exploring how information is shared across the internet.
Video Production	Year 5	Develops digital media skills through planning, filming and editing video. Builds on earlier creative media work, with Year 6 pupils refining techniques for different audiences and purposes.
Selection in Physical Computing	Year 5	Develops programming by combining selection with physical computing. Builds on earlier programming experiences, with Year 5 pupils creating simple control programs while Year 6 pupils solve more complex problems using inputs and outputs.
Spreadsheets	Year 6	Develops data handling using spreadsheets. Builds on previous work with databases and data analysis, with Year 5 pupils entering and presenting data while Year 6 pupils using formulae, calculations and charts.
Variables in Games	Year 6	Introduces variables to create more interactive games. Builds on earlier programming experiences, with Year 5 pupils exploring how variables change while Year 6 pupils designing, testing and refining increasingly complex programs.
Web Page Creation	Year 6	Develops digital publishing by creating websites for a specific audience and purpose. Builds on earlier media units, with Year 5 pupils organising content while Year 6 pupils considering navigation, accessibility, copyright and design.