

Computing long-term plan.

Computing	Computer systems & networks	Creating media	Programming	Data & Information	Creating media	Programming
Cycle A (Y1/2) (See Teach Computing website for lesson plans)	Keeping Safe. To understand the online risks & age related rules for sites. Using technology safely & respectfully, keeping personal information private. Where to go for help & support. Discovery Education Espresso KS1 online safety.	Digital Painting. Choosing appropriate tools in a programme to create art, and making comparisons with working non-digitally.	Moving a Robot Writing short algorithms and programmes for floor robots, and predicting program outcomes.	Grouping Data Exploring object labels, then using them to sort & group objects by properties.	Digital writing Using a computer to create and format text, before comparing to writing non-digitally.	Programming Animations Designing & programming the movement of a character on screen to tell a story.
Y1/2 Cycle B	Technology & Internet Safety. Identify IT and how it's responsible use improves our world in school and beyond. Discovery Education Espresso KS1 online safety.	Digital Photography. Capturing & changing digital photographs for different purposes.	Robot algorithms. Creating and de-bugging programmes and using logical reasoning to make predictions.	Pictograms. Collecting data in tally charts and using attributes to organise and present data on a computer.	Making Music. Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Programming Quizzes. Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

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C3 Cycle A	Keeping Safe Online Identifying IT and how it's responsible use improves our world in school & beyond. Connecting computers Identifying that digital devices have inputs, processes & outputs & how devices can be connected to make networks. Introduction to Python. (Discovery Ed) Learn & begin to use basic Python codes.	Stop Frame Animation Capturing & editing digital still images to produce a stop-frame animation that tells a story. (Link to Discovery Ed Block coding Level 1)	Sequencing Sounds Creating sequences in a block-based programming language to make music. (Link to Discovery Ed Block Coding Level 2)	Branching Databases Building and using databases to group objects using yes/no questions.	Desktop Publishing Creating documents by modifying text, images & page layouts for a specified purpose.	Events & Actions in Programs Writing algorithms and programs that use a range of events to trigger sequences of actions. (Link to Level 3 Discovery Ed Block Coding unit)
C3 Cycle B	The Internet. Recognising the internet as a network of networks, including the WWW. Why we should evaluate online	Audio Editing. Capturing and editing audio to produce a podcast, ensuring copyright is considered	Repetition in Shapes. Using a text based programming language to explore count-controlled loops when	Data Logging. Recognising how & 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	Repetition in Games. Using a block-based programming language, e.g. Scratch, to explore count-controlled & infinite loops

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	content to keep safe. Introduction to Scratch. Rules for posting work online & using the safe school community.		drawing shapes. Python Graphics. (Discovery Education) Learn how to use turtle graphics.		purpose is fulfilled.	when creating a games.
C4 Cycle A	Sharing Information Safely. Identifying & exploring how information is shared between digital systems. Discovery Education Online safety units.	Video editing. Planning, capturing & editing video to produce a short film. (additional unit to allow for gp work- Discovery Education, Block coding level 4)	Selection in physical computing. Exploring conditions & selection using a programmable microcontroller. (additional unit to allow for gp work- Discovery Education, Block coding level 5)	Databases. Using a database to order data & create charts to answer questions. (extrn.create a simple database using Google sheets)	Vector drawing. Creating images in a drawing program (Google) by using layers & groups of objects. Python Functions. Discovery Education.	Selection in quizzes. Exploring selection in programming to design & code interactive quizzes, using Scratch.
C4 Cycle B	Internet Communication. Recognising how the WWW can be used to communicate &	Webpage Creation. Designing & creating webpages. Discovery Education	Variables in Games. Exploring variables when designing & coding a game. Scratch	Introduction to (Google) spreadsheets. Answering questions by using spreadsheets	3D Modelling. Planning, developing & evaluating 3D computer	Sensing. Designing & coding a project that captures inputs in a

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	be searched to find information. Internet safety.	Coding HTML units		to organise & calculate data.	models of physical objects using Tinkercad.	physical device.
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