

Understanding the World

Listen to a broad selection of stories, non-fiction, rhymes and poems to foster their understanding of our technologically diverse world

Expressive Arts and Design

Explore and play with a wide range of media and materials, such as beebots, CD players, tablets and interactive whiteboards

Computing systems and networks - Collaborative learning

Working collaboratively in a responsible and considerate way; looking at collaborative tools.

Data handling - investigating weather

Research and store data using spreadsheets; design a weather station that gathers data; use green screens to present.

Programming - Programming music

Apply programming skills to create sounds and melodies leading to a battle of the bands performance.

Data handling - Mars Rover 1

To identify some of the data that Mars Rover could collect; transfer data and binary code; read any number in binary.

Safety and responsibility

Online safety; bias and reliability; the law and ethics

Hardware and software

Digital devices; software; the CPU and the fetch-execute cycle; introduction to networks

Internet communication

Internet communication; search engines

Data representation

Binary; representing text, images and sound

YEAR SEVEN ONWARDS... (KS3)

Computational thinking

Decomposition; pattern recognition; abstraction; algorithms (sorting, sequencing, selection, iteration, logical reasoning); evaluating situations

Programming

Selection and iteration; Boolean logic; arrays and lists; procedures and functions; writing error-free code

YEAR FOUR

Creating media - Video trailers: Using iPads

Develop filming and editing video skills through the storyboarding and creation of book trailers.

Creating media - Stop motion animation

Create a short stop motion animation with small changes between images. Think of a simple story idea. Add effects e.g. extending parts and titles.

Creating media - History of computers

Children write, record and edit radio plays set during WWII; look at how computers have evolved; design a computer of the future.

Programming 2 - Micro:bit

Clip blocks together and predict what will happen. Create this images to make the animation. Choose appropriate blocks. Break a program down into smaller steps.

Programming 1 - Algorithms unplugged

To explain what an algorithm is; write and follow algorithms. Decompose a design into steps. Identify bugs in an algorithm and how to fix them.

Computing systems and networks 1 - what is a computer?

Explore what a computer is by identifying and learning how inputs and outputs work, how computers are used in the wider world and designing their own computerised invention.

YEAR THREE

Programming - Scratch

Learn to use repetition or 'loops' and build upon skills to program an animation; a story and a game.

Computing systems and networks - Networks and the internet

Learn how devices communicate; identify components; learn how info is shared.

YEAR ONE

Programming 2 - Bee-Bot

Recognise cause and effect when pressing buttons. Demonstrate how it works. Record video. Program a Bee-Bot to reach a destination. Identify and correct mistakes in their programming.

Data Handling - Introduction to data

Use mouse and keyboard skills to navigate the computer. Collect data about minibeasts using a tally chart. Sort data.

YEAR TWO

Programming - Algorithms and debugging

Develop an understanding of; what algorithms are, how to program them and how they can be developed to be more efficient, introduction of loops.

Creating media - Stop motion: Using tablet devices

Create a flip book animation. Decompose a story into smaller parts. Create stop motion animations with small changes between images.

Computing Curriculum Road Map