

COMPUTING KEY OBJECTIVES

Foundation Stage

Computing systems and networks

- I can log on to a computer.
- I am developing my mouse and keyboard skills.
- I can use a digital microscope.

Creating Media:

- I can use a digital camera to photograph an image.

Programming:

- I can follow simple instructions to control a digital device.

Year 1

Computing Systems and Networks:

- I can recognise technology in school and use it responsibly

Creating Media:

- I can choose appropriate tools in a program to create a picture, and make comparisons with working non-digitally.
- I can use a computer to create and format text, before comparing to writing non-digitally.

Programming:

- I can write short algorithms and programs for floor robots, and predict program outcomes.
- I can design and program the movement of a character on screen to tell stories.

Data and Information:

- I can explore object labels, then use them to sort and group objects by properties.

Year 2

Computing Systems and Networks:

- I can identify IT and how its responsible use improves our world in school and beyond.

Creating Media:

- I can capture and change digital photographs for different purposes.
- I can use a computer as a tool to explore rhythms and melodies, before creating a musical composition.

Programming:

- I can create and debug programs, and use logical reasoning to make predictions.
- I can design algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

Data and Information:

- I can collect data in a tally chart and use attributes to organise and present data on a computer.

Year 3

Computing Systems and Networks:

- I can identify that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.

Creating Media:

- I can capture and edit digital still images to produce a stop-frame animation that tells a story.
- I can create a document for a specific purpose by modifying text, images, and page layouts.

Programming:

- I can create sequences in a block-based programming language to make music.
- I can write algorithms and programs that use a range of events to trigger sequences of actions.

Data and Information:

- I can build and use branching databases to group objects using yes/no questions.

Year 4**Computing Systems and Networks:**

- I can recognise the internet as a network of networks including the WWW, and explain why we should evaluate online content.

Creating Media:

- I can capture and edit audio to produce a podcast, ensuring that copyright is considered.
- I can manipulate digital images, and reflect on the impact of changes and whether the required purpose is fulfilled.

Programming:

- I can use a text-based programming language to explore count-controlled loops when drawing shapes
- I can use a block-based programming language to explore count-controlled and infinite loops when creating a game.

Data and Information:

- I can recognise how and why data is collected over time, before using data loggers to carry out an investigation

Year 5**Computing Systems and Networks:**

- I can recognise IT systems around us and how they allow us to search the internet.

Creating Media:

- I can create images in a drawing program by using layers and groups of objects.
- I can plan, capture, and edit video to produce a short film.

Programming:

- I can explore conditions and selection using a programmable microcontroller.
- I can explore selection in programming to design and code an interactive quiz.

Data and Information:

- I can use a database to order data and create charts to answer questions.

Year 6**Computing Systems and Networks:**

- I can recognise computing systems and explore online collaborative working.

Creating Media:

- I can create 3D graphics using a computer.
- I can identify what makes a good web page and use this information to design and evaluate my own website using Google Sites.

Programming:

- I can explore the concept of variables in programming through games in Scratch.
- I can create programming constructs of sequence, repetition, selection and modify; apply the learning to improve their games in Scratch.
- I can design programs using micro:bit with all four programming constructs: sequence, repetition, selection and variables

Data and Information:

- I can organise data in columns and rows to create own data set; understand the importance of formatting to support calculation; explore the use of formulae