

Computing at Clifton Primary School

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Intent and rationale

Computing today is a part of everyday life. Children often arrive at Clifton having some experience of technology and devices. They may have accessed television through online services, seen people using mobile devices or listened to music through a digital platform. We want the children in our school to move from being just users of computers and software to becoming confident and creative explorers, inventors and problem solvers of computers, systems and software.

The curriculum puts a clear emphasis on three areas of learning:

Computer science - how computers work and how to write algorithms and solve problems to eventually create a computer program.

Information technology - how data is represented and managed on computers.

Digital literacy - how to understand digital information and interact with it safely and appropriately.

Our pupils will become responsible, competent, confident and creative users of information and communication technology. They will describe ways in which technology can affect healthy sleep and can describe some of the issues. They will develop the computing knowledge and skills to help them create and interact with digital technology safely and this will develop progressively as they move through the school, enabling them to become digital citizens and act with confidence and responsibility in online settings.

They will be able to explain that there are some people they communicate with online who may want to do themselves or their friends harm and will understand how online identity can be copied, modified or altered. They will learn how to make positive contributions and be part of online communities and describe how they collaborate with others positively.

Implementation

Pupils at Clifton understand and apply the principles and concepts of computer science, including algorithms and data representation. They can analyse problems and have practical experience of writing computer programs in order to solve such problems. They will develop logical thinking and coding using Scratch 3 to make a range of computer games and will also learn how to create QR codes. They will create a range of resources to link to the QR codes, including a range of text, images, drawings, movie clips or to existing web sites or YouTube clips.

Pupils will evaluate and apply information technology, using a range of presentation, data and story boarding software. Children will create an Online presentation and deliver the presentation to the rest of the class or to a small group of children within the class. They will create spreadsheets that are fit for purpose and support the user in finding the answer to problems. Children will demonstrate their understanding to create a storyboard on images

and a narration to accompany the images. Each scene will be recorded as video and the video imported into a video editing package to create an explanatory video.

Skills are developed throughout Key Stage 1 and Key Stage 2 and utilise a variety of devices and learning platforms. Children are taught computer science through a variety of resources, apps and software. From KS1 our children are using Bee-bots to code and in KS2, using Scratch and building their own computer games. Information technology enables children to use search technologies effectively and to use a variety of software to collect, analyse, evaluate and present data and information.

At Clifton, pupils are lucky enough to have the opportunity to use both laptops and iPads within the class across a range of subjects. Online-safety forms a key part of all our learning and use of technology, as we aim to develop digitally literate citizens.

Computing language relating to the current topic is frequently reinforced during questioning and discussion and is displayed in classrooms as a constant reminder of its importance in computing. The vocabulary of computing is embedded into our teaching and pupils will become confident using the language of computing, such as outputs, commands, variables, commands and solutions.