

Curriculum map charting a child's journey through the Computing Curriculum at Bishop Cornish School.

Reception

Through understanding the world children explore all variation of technology. Children get a further understanding of technology in the home such as mapping out where they have technology and how they use it. They use actual household items to see how they work to have a hands-on experience such as using microwaves and toasters.

They also explore other technology such as using ipads and laptops. They use this technology to take photographs, play on apps and games and how to make pictures on paint programmes. They also create maps to programme beebots and blubots.

Children also gain an understanding of online safety, making sure they understand how they can stay safe online and games that are suitable for them.

Year 1

In ICT we seek to develop and enhance the skills the children have learnt in EYFS through our topic based approach. We use ICT in literacy and maths on an almost daily basis. Throughout all of this we talk about being safe on the internet and the appropriate nature of what we are using. During the year children will use everyday devices such as talk cans, microphones, microwaves etc. to develop their use of ICT in our ever changing world.

We begin by exploring a paint programme on the ipad and on the laptop. The children learn to access laptops with a login. And to choose an appropriate programme. They use a mouse to navigate the taskbar choosing different colours and effects. The children create pictures based on our animal topic work as well as fireworks and Christmas.

The children then move on to some programming work with beebots. We learn how to make them move and use instruction cards to create out own simple instructional programmes. This links into our work on space and maps as we create maps for the beebots to follow and dress them up just like an astronaut.

Finally we look at movie making. The children use photographs to make a simple movie and then develop some stop go animations. These link into our pirate work with the children making their own pirate animations.

Year 2

Continuing from Year 1, during Year 2 computing is taught more in depth and with a range of apps and programmes being used. Skills are taught as stand alone lessons but also used throughout of lesson such as researching in history.

Children will look at coding and algorithms and using bee bots, Scratch and Ipad games such as Daisy the Dinosaur. They also use scratch to create their own video game step by step. Children have to evaluate their work and adjust their ideas. Using the internet for research to create their own mind maps, fact files and Power Point presentations. This is used through other lessons to aid learning. Children are also taught about Internet Safety and how they can stay safe online. They discuss what it means to be safe online and what to do if they ever encounter something that makes them feel unsure.

Children continue to use ipads to take photographs but spend more time focusing on editing them. They use different apps and will create new images from photos they have taken.

Year 3

In Year 3, computing is used alongside other subjects to enhance and support our learning. Children will use word processing and multimedia software as a way of presenting information. In addition to this, we will cover a range of computing topics as follows:

We are programmers

Using 'Scratch' the children will create an animated cartoon using characters which they design. They will use a paint tool to create characters and backgrounds, then create an animation by translating a storyboard into a series of scripted instructions for graphic objects.

We are big fixers

We will continue working with 'Scratch' and the children will investigate how scripts work, finding and correcting errors in them and then explore creative ways of improving them. The children learn to recognise some common types of programming error, and practise solving problems through logical thinking.

We are presenters

Using an app such as iMovie, Year 3 will make a short narrated video. They will gain skills in shooting live video, such as framing shots, holding the camera steady and reviewing what they have made before editing this.

We are network engineers - exploring computer networks including the internet

Year 3 will investigate how computer networks work and understand the physical hardware connections necessary for computer networks to work. The children will also learn about internet safety and how to keep themselves safe online.

We are opinion pollsters

Children will create their own opinion poll, seek responses and then analyse the results. Through this topic, they will understand some elements of survey design and also understand some ethical and legal aspects of online data collection. We will gain skills in using charts to analyse data and also in how to interpret results.

Year 4

Throughout Year 4 skills and understanding will deepen and develop in computing. Children will refresh their abilities through use of familiar programs and software along with new ideas. Children will continue to software develop and use scratch to be able to develop an educational computer game using selection

and repetition they will also start to debug computer programs. They will also become:

Toy Designers

- Understand different forms of input and output [such as sensors, switches, motors, lights and speakers]

Musicians on Ipad applications

- Using one or more programs to edit music
- Create and develop a musical composition

Internet safety is also continued throughout year 4 and is discussed through various ways such as Safer Internet day and in designated lessons. There exploration of computing will also continue during different topics such as becoming meteorologists and using computer-based data logging to record some weather data, analysing data, explore inconsistencies in data and make predictions. They will also have the chance to practice using presentation software and, optionally, video on the I pads

Year 5

Children will learn the required skills in computing as much as possible by linking their current topic. Computing is used alongside other curriculum areas to help support learning and understanding. Internet safety is continued within year 5 and includes recognising suitable and unsuitable behaviour as children have more independence online. Children will also learn various other skills including:

- Handling Data - excel. This could be linked to our geography work on North America.
- Becoming game developers- developing an interactive game using Scratch.
- Creating art in alternative ways.
- Cracking codes- detecting & correct errors in algorithms and programs
- Publisher – Could be linked to producing posters for several subjects.
- Word processing skills will be used to publish work.
- Multi- media - PowerPoints – are useful for all topics.
- Programming – Could be linked to many of our topics

Year 6

Year 6 use computers, iPads and other digital technology to develop their computing skills as part of everyday learning e.g. Internet research; presenting facts using a variety of programmes including Microsoft Power Point and Microsoft Word. Laptops are used for word processing and creating documents as well as researching within wider topics. Specialised apps for specific purposes e.g. GarageBand for composing or Book Creator etc.

iPads are also used for creating movies, editing sound, adding music, sound effects etc. as well as Stop Motion animation to help create stories or reinforce learning objectives e.g. a particular times table, or photosynthesis etc.

Children will also learn and develop other skills including being confident when creating programs, understanding simple algorithms and using the internet including E-safety. They will also have an understanding of using a variety of software on a range of digital devices.