

## What is Computing?

A high-quality computing education equips pupils to understand and change the world through computational thinking. It develops and requires logical thinking and precision. It combines creativity with rigour: pupils apply underlying principles to understand real world systems, and to create purposeful and usable artefacts. More broadly, it provides a lens through which to understand both natural and artificial systems, and has substantial links with the teaching of mathematics, science, and design and technology.

Computing at Summerhill does not only involve the use of a computer. Computing is much more than this! At Summerhill **all** children will have the opportunity to use the interactive whiteboard as well as:

### Digimicroscopes and Recorders



### Ipads



### Class Computers



## Computing Curriculum 2014

### The Aims of the Computing Curriculum is...

- Children can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication.
- Children can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.
- Children can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Children are responsible, competent, confident and creative users of information and communication technology.

### Key Stage 1 Objectives:

- ◆ Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- ◆ Write and test simple programs.
- ◆ Use logical reasoning to predict the behaviour of simple programs organise, store, manipulate and retrieve data in a range of digital formats.
- ◆ Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

## E-Safety

At Summerhill Infant School children use the internet to research topics under close adult supervision in order to practise their ICT skills.



Children's use of the Internet is closely monitored and all Bristol schools only have access to sites that have been through a stringent filtering system. Each term all children are introduced to the idea of Internet Safety through termly lessons which progress through their time from EYFS to Year Two, covering a range of issues such as privacy, chatrooms, facebook and many more. We also celebrate "Safer Internet Day" each year.

If you would like to know more about keeping your children safe online you can visit these websites which have useful information for parents/carers as well as activities for children.

### Hector's World



### Astro Circus



### Kidsmart



## Coding

One of the main differences to the New Computing Curriculum 2014 is the introduction of "Computer Coding!"

The New Curriculum 2014 states that all children should...

*"Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions."*

The main reason for this new addition is...

*"At the core of computing is the science and engineering discipline of computer science, in which pupils are taught how digital systems work, how they are designed and programmed, and the fundamental principles of information and computation. Building on this core, computing equips pupils to apply information technology to create products and solutions."*

This is an exciting new element of our Computing Curriculum and all children in KS1 will have the opportunity to learn how to program and use a simple program.

This will be done by using a range of programmes in school to show children how making choices and selecting options has an effect on the way an object moves, reacts and changes on a computer screen.



Using computer programmes to practice numeracy skills. It also allows children the opportunity to develop their keyboard and mouse skills.



Celebrating Internet Safety Day by thinking about why we love ICT and making our own computers, laptops and iPads!

For more information please contact the following people...

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## Summerhill Infant School

# Computing

(Formally named  
Information  
Communication  
Technology - ICT)



This leaflet aims to give you a brief overview of computing at Summerhill Infant School.