Belvedere Infant School

Computing Rationale

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Our essential learning objectives for Computing at Belvedere Infant School are to enable children:

- To be able to communicate ideas, using applications and devices across the curriculum
- To be able to code for practical and inventive purposes
- To be able to connect with others safely and respectfully
- To be able to collect, organise and manipulate data effectively

Whenever possible, we aim to teach the application of computing skills within a cross curricular context to ensure that children find the learning purposeful and meaningful.

Internet safety and responsibility are built into all units of the computing units followed at Belvedere Infant School.

In the Early Years, Children are taught to recognise that a range of technology is used in places such as homes and schools and that they need to select and use technology for particular purposes.

We have access to a recently refurbished computing suite, BeeBots and other computing equipment and interactive whiteboards in each classroom that are used to support and develop children's learning across all curriculum areas.

Key Stage 1

By the end of Key Stage 1 children should be able to:

Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.

Create and debug simple programs.

Use logical reasoning to predict the behaviour of simple programs.

Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Use technology safely and respectfully, keeping personal information private; know where to go for help and support when they have concerns about material on the internet.

Recognise common uses of information technology beyond school.

Computing Curriculum Intent, Implementation and Impact statement

Intent

At Belvedere Infant School, we aim to develop, confident, resilient and independent users of technology. They learn how to use the Internet safely and know to speak to trusted adults when they have any concerns. Our broad and engaging curriculum teaches children the key skills to use and engage with technology. At Belvedere Infant School, we believe that every child can use technology safely and competently.

Implementation

Each KS1 class has a lesson once a week using either the tablets or in the junior school computing suite

Each EYFS class has access to a range of digital and programmable toys or devices throughout the week

Children in Year 1 are taught to use a mouse and touchpad correctly and how to use a range of programmes confidently

Progress is recorded against short-focused tasks and where appropriate assessments are made

Children in Year 2 start each lesson with ten minutes touch typing and aim to develop accurate typing skills

By the end of each unit pupils are expected to know, apply and understand the skills and processes outlined in the relevant programme of study

Online support materials are available for each lesson so children can work independently; they can revisit key learning and access work with extra challenge

Online safety has a whole school focus in the Autumn term, is the content of the first computing lesson of each half term and is taught in every lesson.

Impact

We know our computing curriculum is successful, when our children are confident in using a range of programs and can complete simple coding tasks. They can begin to

use touch typing skills and use the mouse and keyboard effectively. They have an understanding of e safety.