



# COMPUTING POLICY

## Introduction

This policy sets out Boyne Hill CE Infant & Nursery School's intent and implementation strategies for the delivery of the Computing curriculum. Computing is about preparing pupils to participate in a rapidly changing world in which so many activities are increasingly transformed by access to varied and developing technology.

## ***The National Curriculum 2014***

*'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 Technology and provides insights in to 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 programmes, 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.'*

## Intent

In an age appropriate way, we aim to develop our pupils' knowledge and understanding of, and application of, the concepts of digital literacy, information technology and computer science. This will include understanding and applying the fundamental principles and concepts of computer science; using technology safely and respectfully and becoming confident and creative users of information and communication technology; recognising common uses of information technology beyond school; using technology purposefully to create, organise, store, manipulate and retrieve digital content; understanding what algorithms are and that programmes work by following precise instructions and creating and debugging simple programmes and using logical reasoning.

Although the Early Years Foundation Stage Statutory Framework does not make explicit reference to computing, we recognise that learning about computing and technology is important for our early years' pupils. This will ensure that pupils enter Year 1 with a foundational of knowledge of computing. Computing in EYFS is centred around activities that focus on building pupils' curiosity, creativity and problem solving.

## Implementation

We follow a broad and balanced Computing curriculum that builds on prior learning and provides both support and challenge for learners. It ensures progression of skills, covers all aspects of the Computing statutory requirements of the national curriculum and provides a framework for knowledge and skills development within the Early Years Foundation Stage,

In Key Stage 1, all classes will have timetabled Computing lessons following the Purple Mash Computing Scheme of Work, with direct teaching input and equipment being used in small groups.

**Purple Mash Computing** is a comprehensive, inclusive and accessible programme aligned to the National Curriculum with full schemes of work intended to facilitate teachers in achieving the very best computing outcomes for pupils, regardless of their starting points. It exposes pupils to a wide variety of computing knowledge, skills, experiences and real-life scenarios which supports the notion of Cultural Capital; providing the foundations that lead to well-rounded global citizens.

Any pupils with identified SEND may have work additional to and different from their peers in order to access the curriculum, dependent upon their needs. Within the units are opportunities for all pupils to make good progress

and achieve; this includes supporting them through scaffolding and more structured activities or extending learning through open ended application of skills.

The Purple Mash Computing Scheme of Work has three key strands:

- 1. Digital Literacy**
- 2. Information Technology**
- 3. Computer Science**

Within each strand there are Units which do not need to be taught in sequence as progression builds upon learning in the previous year. The overlap between units also serves to deepen understanding of computational concepts and provide opportunities for pupils to apply and extend understanding and make links in their knowledge and capabilities.

Each classroom is equipped with an iPad and an interactive touchscreen. In Key Stage 1, each classroom is also equipped with 7 touchscreen Notebooks with internet access and all the relevant applications needed to teach computing in school. In addition, there is a range of other IT equipment in school including Bee Bots and floor robots.

Our Computing curriculum recognises that computing is able to be taught as a discrete subject as well as being woven through other areas of the curriculum. Many of the skills are transferrable which provides a wealth of learning opportunities across other curriculum subject areas. We want to ensure that Computing is embedded in our whole school curriculum and that opportunities for enhancing learning by using the computing facilities are always taken.

## **Impact**

The impact of our curriculum will be monitored through on-going formative assessment. It is our aim that pupils will leave our school equipped with a range of skills to enable them to succeed in the next stage of their learning journey.

The expected impact of our Computing curriculum is that pupils will:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Be able to write and test simple programs.
- Be able to 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.

## **Role of the Subject Leader**

- To monitor and evaluate the effectiveness of the curriculum across the school through discussion with the teachers and pupils and monitoring of assessment outcomes.
- To make sure that equipment is safe and suitable through liaison with the IT Technician.
- To provide support and advice where needed for meeting individual pupils' needs, especially those with special educational needs and/or disabilities.
- To periodically review and update the school's Computing policy, Computing curriculum and progression map.
- Keep abreast of the latest research, teaching activities linked to topics and liaising with teachers about any CPD requirements.

## **Computing and E-Safety**

E-safety is an integral part of safeguarding and this applies to pupils' use of computers and the internet. Whilst many of our young pupils may be confident and enthusiastic about digital technology, we recognise that they

have little understanding about the risks. Until they develop the digital literacy skills to assess these risks, we have put measures in place to keep them safe from harmful images, content or websites. Please see the E-Safety policy for more information.

Online safety is taught and discussed with the pupils at the beginning of each academic year and is regularly revisited. There is a wealth of information to support this available on our school website.

**This policy will be reviewed biennially**

Last reviewed: May 2024