

# Halfway Nursery Infant School



## Computing Policy

Date Policy Written / <b>Updated:</b>	November 2021
Date Policy accepted:	
Date of Next Review:	November 2022
Signed (Headteacher)	
Signed (Chair of Governors)	
Minute Number	

# HALFWAY NURSERY INFANT SCHOOL

## COMPUTING POLICY

### Purpose of this Policy

- To inform all interested parties - staff, governors, parents - of our current position within the area of Computing.
- To inform them of planning for future developments.

### 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. Computers are the most obvious tool used but computing also includes programmable robots, tape recorders, calculators, telephones, cameras, videos and other forms of media.

### Aims

The aims of the school for ICT are:

To ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.
- To raise pupil standards of achievement in all subjects and particularly Literacy and Numeracy.
- To provide a comprehensive high quality computing curriculum, which is coherent and progressive

## **Current Position**

### **Pupil Access to ICT**

Each classroom has two PC's that are networked with internet access and an attached printer. There are 8 interactive whiteboards in school: 1 in the rainbow room for whole school use, and 2 in each year group.

Each year group has access to a listening centre, digital camera and a concept keyboard. There are 2 Roamers with re-chargeable batteries for whole school use.

All computers in school building now have Internet access. This includes two computers in the staffroom which can be utilised for planning and preparation.

### **ATTAINMENT TARGETS**

In the EYFS we relate the computing aspects of the children's work to the objectives set out in the Ages & Stages and Early Learning Goals and Early Years Foundation Stage documents, which underpin the curriculum planning for children aged from birth to five.

In Key Stage 1 we use the National Curriculum 2014, alongside our own skills progressions as the basis for implementing the statutory requirements of the programme of study for computing.

### **SUBJECT CONTENT**

#### **Foundation Stage**

Pupils should be taught to:

- recognise that a range of technology is used in places such as homes and schools.
- select and use technology for particular purposes.
- complete a simple program on a computer.
- Use ICT hardware to interact with age-appropriate computer software.

#### **Key stage 1**

Pupils should be taught 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 simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies support different curriculum areas.
- recognise that there is a need to develop specific ICT skills which may not necessarily be Topic linked or cross-curricular.

The framework for the teaching of computing in our school is outlined in the National Curriculum.

The Programmes of Study are divided into four areas outlined with yearly guidelines as:

1. Data Handling & Research
2. Programming and Modelling
3. Multi-media & Visual Media
4. Non-Curricular ( eg typing skills)

Children will be taught from each of these strands within each Key Stage.

### **Teaching and learning style**

Our principal aim is to develop children's knowledge, skills and understanding in Computing through the use of the EDUcate approach (Experience, Develop, Use):

**Experience/Engage:** Children should be exposed to and engaged in a concept/idea in as many different ways to gain experience of it. This is an essential part of the learning process. If children haven't seen, heard or felt part of a genre or style then they can't possibly claim to have any experience of it. A child with limited or no experience of something cannot possibly develop learning to enable them to use this concept/idea in real life. It is our role as teachers to provide exposure to and experience of a whole range of notions, ideas and concepts to enable children to understand them and use them appropriately in the real world. Whilst providing experience its essential that teachers assess children as individuals' starting points will be very different. AfL at this stage will provide a valuable insight into what future learning needs to take place for children to gain a true understanding.

**Develop:** Once children have gained some experience of a concept/idea/genre and teachers have activated prior learning and clearly identified gaps in learning, then together, teaching can be shaped to develop skills and knowledge to fill gaps in understanding and move learning on. It is in this stage where children should make most progress in developing basic skills and teachers should be constantly reflecting on learning and shaping (and re-shaping lessons) teaching to maximise progress for all children.

**Use:** Once children have developed skills and knowledge and can confidently use them in isolation, it is important we provide children with opportunities to use and apply these newly developed skills and knowledge in real life, purposeful and meaningful situations. It is only in these situations that children will truly show a genuine understanding of a concept/idea, as they should be able to transfer skills/knowledge in the real world, explaining what they have been learning, why they have been learning it and what use it is to them!

### **Literacy and Mathematics**

ICT is used to support work in Literacy and Numeracy.

### **Equal Opportunities**

All children are given as much access as possible to the computer without discrimination. The computer is used to support special needs children, being recognised as a tool which increases motivation and gives improvement to the accuracy and appearance of work.

### **Assessment**

The children's work is viewed as an on-going record of their progress and attainment in this subject.

Their confidence and purposeful use of equipment to communicate and handle information in support of their learning should reflect their level of attainment as indicated by the National Curriculum. Evidence of Computing work should be placed in children's Topic and Special books.

### **Staff Development**

It is recognised that ICT is one of the most difficult areas for staff to develop expertise in as much as it is essentially "hands on" experience which increases skill and confidence. With all of the demands this can be very difficult to achieve.

However, some of the following strategies have been used and will be continued to aid staff development in ICT.

- Curriculum days for hands on experience of ICT
- Staff meetings run by Co-ordinator or as part of LEA entitlement involving ICT adviser
- INSET courses
- Support of ICT co-ordination. A curriculum support sheet may be filled in by ICT Co-ordinator each half term for each member of staff to ascertain focus and support needed
- Regular update on National, LEA initiatives by Co-ordinator or ICT Adviser.
- Simple instructions for all software are with work stations in order to support teachers.

### **ICT Development**

For more details of ICT development see copies of ICT Audits and Action Plans submitted to the LEA.

### **Roles and Responsibilities**

The Headteacher is responsible for ensuring the implementation of the Computing Policy and is committed to the delivery of a high quality Computing Curriculum .

The ICT Co-ordinator:

- assists staff in the use of hardware and software
- organises resources, ensuring the safety of equipment, co-ordinating its purchase and maintenance
- ensures that there is continuity and progression in Computing learning
- liaises with staff to ensure the implementation of the Computing Policy and to promote a whole school approach to Computing
- responds to changes in statutory orders
- is responsible with the Headteacher for monitoring the effective implementation of Computing throughout the school

Teaching Staff are responsible for planning, delivering and assessing pupils' learning in Computing in line with the National Curriculum and the School Policy.

### **Managing and Purchasing Resources**

The Co-ordinator and Headteacher will decide on the management and purchasing of resources in the light of yearly budget constraints.

Consideration has to be given to the following areas:

- consumables e.g. CDs, printer cartridges
- repairs and maintenance
- updating hardware and purchasing software
- internet access
- training requirements
- increasing access to interactive whiteboards.