"At Hilltop Infant School, everyone will work together in a nurturing environment to provide each child with challenging opportunities that encourage a desire for life-long learning."

Hilltop Infant School
Computing Policy

Agreed by the Children & Curriculum Committee October 2015

Signature John Young
Chair of Governors

Due for Review Summer 2017

Introduction

This document sets out the vision and policy objectives for Computing at Hilltop Infant School. It also sets out the school's agreed approach to the Computing Curriculum and informs teachers, support staff, governors, parents and the wider community.

While ICT is able to improve experiences for both children and staff in school, it is important that our use of it remains thoughtful. Children respond to different delivery styles and there are occasions when ICT does not improve learning experiences, record keeping etc.

Vision Statement

Computing and the use of ICT underpins today's modern lifestyle. At Hilltop Infant School we believe it is essential to provide all pupils with every opportunity to gain the confidence and ability that they will need in this subject; to use computational thinking and creativity, to understand and prepare them for the challenges of a rapidly developing and changing technological world. ICT will be used to motivate, enhance and extend pupils' learning across the whole curriculum. Computing has deep links with mathematics, science and design and technology. We aim to use ICT to its fullest potential in school and beyond, whilst maintaining a balance between modes of lesson delivery, effective administration and communication with families.

Aims and Objectives in Computing

At Hilltop Infant School we **aim to -**

- encourage our pupils to recognise that Computing and the use of ICT is an essential tool for learning, communication, finding information and for controlling and understanding their environment;
- integrate Computing across the curriculum to ensure the highest possible level of interest in and delivery of lessons;
- promote differentiation in each area of the Computing curriculum so that children achieve to the best of their ability;
- ensure all children have equal opportunities to achieve their Computing capabilities in accordance with the EYFS and KS1 national curriculum;
- encourage pupils to work individually and collaboratively with Computing;
- ensure children, parents/carers and staff understand how to keep children safe whilst using the internet (for details, see E-Safety and Acceptable Use Policy);
- ensure staff continue to have every opportunity to develop their Computing skills and knowledge and demonstrate a positive attitude towards the use of Computing as part of the learning process;

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- stimulate pupils to have a heightened interest and awareness of Computing through the regular display of their Computing enhanced work in the classrooms and around the school
- give all pupils opportunities to use Computing outside the school day to develop their interest in Computing;
- allow both staff and children to gain confidence in and enjoyment from, the use of Computing;
- use Computing to ensure effective administration and data keeping.
- ensure children can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- ensure children can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- ensure children can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- ensure children are responsible, competent, confident and creative users of information and communication technology.

Achievement of the Policy

Current resources are sufficient to support the delivery of ICT to teach all the skills required in the Computing National Curriculum and to support the teaching of other subjects. Subject leaders will audit their subjects regularly to ascertain new hardware or software that will improve the delivery of their subjects.

Currently, Computing is being planned for as an integral part of our rolling programme. It is also clearly marked when used in the teaching and learning of other curriculum areas.

Staff confidence and expertise will be developed through training sessions provided by the Computing Co-ordinator, and external professionals. This is to improve the use of our current ICT resources.

The Computing Co-ordinator will support with ICT planning and teaching wherever possible. Support with technical difficulties will be addressed by the school's ICT technician.

It is planned to increase our electronic communications with parents and other stakeholders.

Children are provided with the opportunity to use ICT collaboratively with other Wickford Schools, at the Collaborative Learning Centre (CLC). Children create videos, podcasts and animations using a range of varied ICT software and hardware.

Teaching and Learning

All children should have access to the use of ICT regardless of gender, race, cultural background, economic well being or physical or sensory disability. Where use of a school computer proves difficult for a child because of a disability, the school will endeavour to provide specialist equipment and software to enable access. Children with learning difficulties can also be given greater access to the whole curriculum through the use of ICT. Their motivation can be heightened and they are able to improve the accuracy and presentation of their work. This in turn can raise self-esteem.

Quite often there are huge differences in ability between children who have access to home computers and those who do not. Differentiation may include provision of different software, varying the amount/type of support given, varying the tasks, varying the groupings etc.

The aims and objectives for Computing reflect the requirements of the National Curriculum (2014) for Key Stage 1 and the Early Years Foundation Stage (EYFS) Framework (2014) for EYFS. We refer to these documents to inform our long-term planning and to plan differentiated learning objectives to be covered in each year group to ensure continuity and progression.

Computing is taught discreetly and on a regular basis, so that children are able to sustain their progression throughout the Early Years Foundation Stage and Key Stage 1. Skills acquired are then used in other curriculum areas to facilitate learning in a cross curricula context.

Children will have regular access to laptops in the classroom and/or the ICT suite. They are entitled to use a wide variety of software and hardware in school to develop ICT skills and facilitate their learning.

EYFS

In EYFS, children follow the objectives suggested by the Local Authority. Development Matters and the Early Learning Goals have considerable ICT content and there is an expectation that ICT resources are available to them every day. The children participate in activities that develop, control and encourage exploration, observation, problem solving, prediction, critical thinking, decision making and discussion and are provided with an environment which offers a wide range of activities indoors and outdoors that stimulate children's interest and curiosity. The Computing skills acquired in the EYFS are further developed and refined in Key Stage 1.

Key Stage 1

The objectives for Key Stage 1 as outlined by the National Curriculum (2014) are to:

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- 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
- 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.

The children will experience a broad and balanced range of ICT activities to achieve these objectives. The Computing co-ordinator will be responsible for monitoring continuity and progression in the teaching of Computing.

E-Safety will be an integral part of all Computing and the use of ICT. Children will be taught discreet lessons regarding E-Safety regularly. E-Safety will then be embedded across all other aspects of ICT (See E-Safety and Acceptable Use Policy).

The Role of the Teacher

It is the responsibility of the classroom teacher to select the most appropriate approach to achieving the learning objectives in every lesson. He/she must assess whether and how Computing will enhance aspects of children's learning in each situation. Regular, discreet Computing lessons must be planned for, along with using ICT in all other curriculum areas to enhance learning.

In order to ensure that pupils are extended in each area of the Computing curriculum and reach their full potential, at all levels, teaching will include opportunities for using:
- interactive whiteboards
- laptops and computers
- programmable hardware
- digital cameras
- sound recorders/players
- a wide variety of software
- the Internet

Children will be given opportunities to work:
- collaboratively
- independently
- on consolidating and applying skills

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Assessment, recording and reporting of attainment

On-going formative assessment is an integral part of good practice. Its main purpose is to enable the teacher to match work to the abilities and needs of the children and ensure progression in learning. In EYFS, Computing assessments should be made in the EYFS Profile. For more precise assessment records and to ensure progression in the acquisition of skills, we are also devising our own assessment sheet.   In KS1, assessment sheets should be completed half-termly.

Computing capability should be monitored regularly in relation to the requirements cited earlier. Teachers should assess module requirements with reference to children's knowledge, understanding and skills. Other opportunities for assessment will arise from cross-curricular work.

Samples of work should be kept for each child. These can be stored on the hard drive in children's 'My Documents' or as a hard copy. In EYFS, it is not always practical to keep samples of work, but observations and discussions will be recorded.

Links to the school development plan

- The Computing Co-ordinator produces a Computing SEF each year outlining the targets for that year.

- An audit of resources is undertaken annually to ensure that hardware and software are kept as up to date as possible and that obsolete or broken machines are scrapped or repaired.

Staff training needs will be met by:

- Auditing staff skills and confidence in the use of Computing at least annually;

- Arranging training for individuals as required;

- The Computing Co-ordinator should attend courses and support and train staff as far as possible.

Extra ICT enhancing activities:

- Collaborative ICT projects within Wickford at the CLC, provide children with access to a wider range of expensive ICT equipment and experiences

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Review and evaluation procedures

The everyday use of ICT is developing rapidly, with new technology being produced all the time. This policy therefore will be reviewed and revised annually. The Computing Co-ordinator will liaise regularly with staff, both at staff meetings and informally, to monitor the effectiveness of the policy and the schemes of work. Meetings with subject co-ordinators will also ensure that the use of ICT across the curriculum is planned for and evaluated.

Hayley Wood
Computing Co-ordinator
September 2015

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