

Eastchurch Church of England Primary School



Computing (ICT) Policy

Date: December 2016

Review by: December 2019

Purpose

This policy reflects the values and philosophy in Eastchurch Primary School in relation to the teaching and learning of and with ICT. It sets out a framework within which teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment. The policy should be read in conjunction with the current scheme of work for Computing which sets out in detail what pupils in different classes and year groups will be taught and how ICT can facilitate or enhance work in other curriculum areas.

This document is intended for:

- All teaching staff
- All staff with classroom responsibilities
- School governors
- Parents
- Inspection teams

Introduction

This policy document sets out the school's aims, principles and strategies for the delivery of ICT. Reference is made to Assessment, Equal Opportunities, Special Educational Needs and other curricular policies. Copies of these documents are available on request.

Aims

The school's aims are to:

- Provide a relevant, challenging and enjoyable curriculum for ICT and computing for all pupils.
- Meet the requirements of the National Curriculum programmes of study for ICT and computing.
- Use ICT and computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use ICT and computing throughout their later life.
- To enhance learning in other areas of the curriculum using ICT and computing.
- To develop the understanding of how to use ICT and computing safely and responsibly.

The National Curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication
- 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.

Objectives

To ensure that a holistic approach to ICT and the curriculum is adopted, ICT is used as a tool to enhance learning and this is best achieved, for example, by applying the use of software when it is most appropriate. E.g. Mathematical games to help develop the key skills and the thinking skills.

Early Years

In the foundation stage, children require a broad, play-based experience of computing and ICT skills in a range of contexts, including outdoor play. These skills are not just about computers. Early years learning environments should feature ICT scenarios based on experience in the real world, such as in role-play. Children gain confidence, control and language skills through opportunities to participate in activities such as: 'painting' on an interactive whiteboard; programming a control toy or role-playing conversations using toy mobile phones or walkie-talkies. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language. The school has a range of recording equipment, including USB 'microphone' voice recorders, voice record buttons for displays and netbooks with integrated microphones and recording software.

Key Stage 1 – Computing Curriculum 2014

By the end of Key Stage One, pupils should be taught to:

- 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 and computing 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.

Key Stage Two – Computing Curriculum 2014

By the end of Key Stage Two, pupils should be taught to:

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs
- Understand computer networks including the Internet; how they can provide multiple services, such as the worldwide web; and the opportunities they offer for communication and collaboration
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

In order to fulfil the above aims it is necessary for teachers to ensure:

- That ICT is used to enhance planning, teaching, learning and assessment across the whole curriculum.
- That there is a continuity and progression of Computing skills and knowledge from Foundation Stage through to Key Stage One and Key Stage Two, using the scheme of work (covers EYFS to Year Six) to ensure that the National Curriculum objectives are met.
- That all children have access to a range of ICT resources.
- That cross-curricular links and opportunities to integrate the development of ICT skills into other areas of learning are exploited as much as possible.
- That ICT resources are used to their full extent and that teachers take responsibility for seeking guidance on how to use new hardware/software and request additional resources as needed.
- That children's ICT experiences are monitored evaluated and assessed using the provided assessment system.
- That ICT equipment and resources are kept up to date as much as possible and in good working order. Staff must ensure that children are appropriately trained when helping with the collection/return of ICT equipment.
- That staff skills and knowledge are kept up to date through participation on staff training and use of online / book-based support materials as advised by the ICT & Computing subject leader.

Resources and access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible PC system by investing in resources that will effectively deliver the strands of the National Curriculum and support the use of ICT and computing across the school. Teachers are required to inform the ICT Technician and Computing Subject Leader of any faults as soon as they are noticed. Resources if not classroom based are located in an agreed room. ICT and computing network infrastructure and equipment has been sited so that:

- Every classroom from nursery to Y6 has a laptop connected to the school network and an interactive whiteboard with sound, DVD and video facilities.
- There are 2 laptop trolleys in each site containing 14 laptops with Internet access available to use in classrooms.
- Each class from Y1 – Y6 has an allocated slot for teaching of specific ICT and Computing skills and computing lessons and for cross curricular use.
- Pupils may use ICT and computing independently, in pairs, alongside a TA or in a group with a teacher.
- The school has an ICT and computing technician who is in school five days a week.

Roles and Responsibilities

The role of the Heads of School

- To enable all pupils to have access to electronic equipment (where applicable)
- To ensure that all electronic equipment is inspected and properly maintained
- Seek to maintain an appropriate level of resources
- To support and encourage staff, parents, governors and voluntary helpers in gaining skills to make use of electronically operated equipment
- To ensure the security of the equipment

The role of the Computing Subject Leader

- To implement the Computing policy
- To allow staff access to ICT
- To provide a framework to help devise schemes of work for Key Stages 1 and 2
- To give advice on the progression from one stage to the next
- To attend ICT bridging groups and liaise with other schools in the area
- To complete an IT equipment audit annually in partnership with the technician.
- To organise the purchase of resources
- To assist in the identification of staff training needs
- Monitor the delivery of ICT in the curriculum

The role of the Class Teacher

Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning ICT and computing skills and using ICT and computing across the curriculum.

- To plan and deliver the requirements of the EYFS outcomes and early learning goals or primary framework for Computing to the best of their ability. At Eastchurch Primary School we set high expectations for our pupils and provide opportunities for all pupils to achieve, including girls and boys, pupils with educational special needs, pupils with disabilities pupils from all social and cultural backgrounds, and those from diverse linguistic backgrounds. The class teacher ensures success by creating effective learning environments.
- Securing their motivation and concentration
- Providing equality of opportunity through teaching approaches.
- Using appropriate assessment approaches
- Setting suitable targets for learning as outlined in the inclusion policy.
- The class teacher's role is a vital role in the development of ICT and Computing throughout the school and will ensure continued progression in learning and understanding.
- To keep up to date assessment records.
- All staff should identify those training needs that will allow them to use ICT confidently in their daily work.
- All staff should be able to use ICT for administration and teaching purposes.

The role of the Governors

To arrange for appropriate and adequate funding to be made available for the purchase of ICT equipment

Ensure that the relevant policies are in place

ICT curriculum planning

As the school develops its resources and expertise to deliver the ICT and computing curriculum, modules will be planned in line with the National Curriculum and will allow for clear progression. Modules will be designed to enable pupils to achieve stated objectives. Staff will follow medium term plans with objectives set out in the National Curriculum. A minority of children will have particular teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include G&T children, those with SEN or those who have EAL. Teachers must take account of these requirements and plan, where necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum and assessment activities. During any teaching activities, teachers should bear in mind that special arrangements could be made available to support individual pupils. This is in line with the school Inclusion Policy. These children should be identified and discussed at pupil progress meetings to ensure appropriate provisions or interventions are put into place

The class teacher is responsible for writing the short-term plans with ICT components for each curriculum subject as applicable.

The topics studied in ICT are planned to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move up through the school.

Foundation Stage

We teach ICT in Reception classes as an integral part of the work covered during the year. As the Reception class follows the Foundation Stage we relate the ICT aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. The children have the opportunity to use the computers, Roamer, tape recorders and a digital camera. During the year, they gain confidence and start using the computer to find information and use it to communicate in a variety of ways.

The contribution of ICT to teaching in other curriculum areas

ICT contributes to teaching and learning in all curriculum areas. For example, graphics work links in closely with work in art; and work using databases supports work in mathematics, while CD ROMs and the Internet prove very useful for research in humanities subjects. ICT enables children to present their information and conclusions in the most appropriate way.

English

ICT is a major contributor to the teaching of English. Through the development of keyboard skills and the use of computers, children learn how to edit and revise text. They have the opportunity to develop their writing skills by communicating with people over the Internet, and they are able to join in discussions with other children throughout the world.

Mathematics

Many ICT activities build upon the mathematical skills of the children. Children use ICT in mathematics to collect data, make predictions, analyse results, and present information graphically.

Personal, social and health education (PSHE) and citizenship

ICT makes a contribution to the teaching of PSHE and citizenship as children learn to work together in a collaborative manner. They develop a sense of global citizenship by using the Internet and e-mail. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of ICT, and they also gain a knowledge and understanding of the interdependence of people around the world.

Teaching ICT to children with special needs

We recognise that all classes have children with widely differing ICT abilities. This is especially true when some children have access to ICT equipment at home, while others do not. At Eastchurch School we teach ICT to all children, whatever their ability. ICT forms part of our school Curriculum Policy to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the needs of children.

To assist children with specific needs we have:

A touch screen	Joystick
Roller ball mouse	Big keys keyboards
Clicker 5	Inclusive Writer

Differentiation

Differentiation is achieved by:

Task – the teacher sets different tasks within a common area of study

Outcome – teacher sets common tasks with differing outcomes for the various levels of ability

Resource – the use of materials are varied to meet the needs of the differing abilities

Support – the teacher sets the common tasks whilst providing different levels of support for the variety of abilities within the class

Assessment and recording

Teachers assess children's work in ICT by making informal judgements as they observe them during lessons. On completion of a piece of work, the teacher marks it and comments as necessary. We use this as the basis for assessing the progress of the children and to pass information on to parents in the child's annual report and to the next teacher at the end of the year.

The ICT subject leader keeps samples of the children's work in a portfolio. This demonstrates the expected level of achievement in ICT for each age group in the school.

Equal Opportunities

We operate within the existing school Equal Opportunities policy. All pupils should have equal access to ICT in order to develop their personal ICT capability.

Pupils are encouraged to share their ideas and experiences with each other.

We check CD-ROMS, software and documentation to ensure that gender and ethnicity are reflected in a balanced way without stereotyping.

We expect teachers to be careful in their use of language to avoid reinforcing stereotypical views of society. Teachers also need to be careful with their language to ensure that pupils understand what is being taught. Therefore, technical words must be explained and supported. In addition, careful questioning is needed to help 'scaffold' pupils' responses and support them in expressing higher order ideas.

The SENCO and ICT Subject leader jointly advise teachers on the ICT support which can be provided to individual pupils with particular needs, including high ability pupils. Eastchurch School aims to encourage all pupils irrespective of their gender.

Health and Safety

Pupils should be taught to take great care when using electrical equipment particularly when switching equipment on and off. Particular attention must be drawn to not touching electric switches with wet hands.

Children should have regular breaks when looking at a computer screen for long periods of time.

All electrical equipment will be tested annually by the school caretaker.

Monitoring and review

The monitoring of the standards of the children's work and of the quality of teaching in ICT is the responsibility of the ICT subject leader. The ICT subject leader is also responsible for supporting

colleagues in the teaching of ICT and for keeping them informed about current developments in the subject. The ICT subject leader gives the Heads of School regular reports in which s/he evaluates the strengths and weaknesses in the subject and indicates areas for further improvement.