Christ Church CE School
Computing Policy
Spring 2018

Christ Church
CE Primary School
Regents Park
NW1 4BD

Contents

Mission Statement

The Christian Faith is at the heart of our school community. At Christ Church we care for each other and learn together.

Christ Church is a small, caring school which is committed to a broad, balanced curriculum and to a continual raising of standards. We aim to contribute to the spiritual, moral, cultural, mental and physical needs of every individual.

We are a Church of England school, with a strong commitment to the teaching of Christianity whilst supporting a multi-faith approach to the curriculum. We recognise, value and celebrate the rich cultural diversity that exists in our school.

The Christian ethos of the school is reflected in our positive, disciplined and calm atmosphere. We believe that effective learning takes place when children work in a purposeful and stimulating environment that supports a wide range of learning styles. Mutual respect between adults and children promotes excellent behaviour and well developed social skills. With this approach we seek to achieve high academic standards.

We aim to cater for each individual, taking particular account of any specific needs or abilities. We endeavour to ensure that all our children fulfil their potential and, within this context, we emphasise health and safety, enjoyment and achievement and the beginnings of responsibility for themselves and others. These skills will be carried forward to the next phase of education and throughout life.

The whole school community is committed to a collective responsibility for the implementation of the values inherent in this statement.

Our School Aims - **Every Child Matters**

The Ethos of the School

The school aims to provide a positive, disciplined, purposeful environment, within a Christian context. We aim to teach children to be caring, to exhibit good behaviour and appropriate social skills and to begin to take responsibility for themselves and others.

The Values of the School

The School aims to value every child and to contribute to the Spiritual, Moral, Cultural, Mental and Physical well being of our whole school community. We value the diversity of our community and we aim to promote the health and safety of everyone.

The Standards of the School

The School aims to teach a balanced Curriculum and to ensure that each child fulfils his or her potential. We aim to provide teaching and learning of a high standard. We believe that this is achieved when pupils are highly motivated, enjoy coming to school, and are appropriately challenged.

Date of policy: Spring 2018
Review date: Spring 2020

Introduction

- This policy is a statement of the aims, principles and teaching strategies for the teaching and learning of Computing at Christ Church Primary School.
- This policy will be submitted to the Governing Body. Review of the policy will take place once a year.
- This policy should be read in conjunction with the Online Behaviour Policy.

Rationale and Equal Opportunities

Why have a Computing policy?

Our purposes in developing a written policy for Computing are:

- To raise the standards of teaching and learning of Computing throughout the school.
- To enable us to have a unified and consistent approach to the teaching of Computing throughout the school.
- To help teachers in planning and implementing activities for the children appropriate to their stage of development throughout the school.
- To provide a framework for monitoring, evaluating and targeting children's progress in Computing for developing, reviewing and revising our work as a staff.
- To have a joint statement and explanation of our policy available for parents, governors and teachers.

Aims and Objectives for the Teaching and Learning of Computing

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.

The overall aim for Computing is to enrich learning for all pupils and ensure that they develop good Computing skills which will help them to learn.

Computing gives pupils the opportunity to:

- develop their Computing capability and learn how to find and evaluate information.
- gain skills which will enable learning in all areas of the curriculum.
- use Computing to support their language and communication development.
- develop an awareness of the advantages and hazards of Computing for themselves and for others.
- learn at an appropriate level and pace.

Key Skills

The teaching of Computing should help children to develop the ability to:

- understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems

- be responsible, competent, confident and creative users of information and communication technology.

By using and applying these skills, pupils will be able to acquire knowledge and understanding in the following areas of Computing:

- Computer Science
- Information Technology
- Digital Literacy

The teaching of Computing also allows pupils the opportunity to develop their ability to work co-operatively with others and problem solve.

Teaching and Learning Styles

As an objective of teaching of Computing is to equip children with the technological skill to become independent learners, the teaching style that we adopt is as active and practical as possible. While at times we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in Computing is for individuals or groups of children to use computers to help them progress in whatever they are studying. So, for example, children might research a history topic by using websites that engage them in a highly visual way, or they might use animation software to help them develop their story writing.

We recognise that all classes have children with a wide range of Computing abilities. This is especially true when some children have access to Computing equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways:

- setting tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all tasks);

- grouping children by ability in the room, and setting different tasks for each ability group;
- providing resources of different complexity that are matched to the ability of the child;
- using classroom assistants to support the work of individual children or groups of children.

Curriculum Planning

At Christ Church, we are following a scheme of work called the 'Primary Computing Curriculum' from http://nohandsup.co.uk/ (Author: Steve Rafferty, Deputy Head in Wiltshire, 2014). We have chosen to use this scheme as we feel the units are challenging and interesting for the children, it also has a strong focus on programming and Online Behaviour.

Each class is allocated at least 1 hour and 30 minutes with the use of the Computer Room and iPad trolley. Where possible, classes are allocated one morning and one afternoon session, to encourage teachers to use computing in both core and foundation subjects.

The Foundation Stage

In Nursery and Reception, Computing forms part of the Knowledge and Understanding of the World curriculum. We teach Computing according to the objectives from the Early Years Foundation Stage document, which underpins the curriculum planning for children aged birth to five. Children have the opportunity to use computers, interactive whiteboards, digital cameras and programmable toys both independently and with support from adults. Computing is incorporated into the other five areas of the Early Years Foundation Stage curriculum, for example, children may use a digital camera to take photographs of their favourite areas of the nursery as part of a Personal, Social and Emotional Development activity. Children are also encouraged to use Computing in their role play, such as talking on telephones in the home corner.

Cross–Curricular Links

The teaching of Computing contributes to teaching and learning in all curriculum areas. It also offers ways of impacting on learning which are not possible with conventional methods. Teachers use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics, while role-play simulations and the Internet prove very useful for research in humanities subjects. Computing enables children to present their information and conclusions in the most appropriate way. Quite a lot of software is generic, and can therefore be used in several curriculum areas.

English

Computing is a major contributor to the teaching of English. Children's reading development is supported through talking stories. As the children develop mouse and keyboard skills, they learn how to edit and revise text on a computer. They have the opportunity to develop their writing skills by communicating with people via e-mail, and they are able to join in discussions with other children throughout the world through the medium of video conferencing. They also learn how to improve the presentation of their work by using desktop publishing software. There is in addition a variety of software which targets specific reading, grammar and spelling skills.

Mathematics

Children use Computing in mathematics to collect data, make predictions, analyse results, and present information graphically. Screen robots allow pupils to give exact instructions for a particular route, or to use their knowledge of angles to draw a range of polygons.

Science

Software is used to animate and model scientific concepts, and to allow children to investigate processes which it would be impracticable to do directly in the classroom. Data loggers are used to assist in the collection of data and in producing tables and graphs.

Personal, social and health education (PSHE) and citizenship

Computing makes a contribution to the teaching of PSHE and citizenship in that children in Computing classes learn to work together in a collaborative manner. They also develop a sense of global citizenship by using the Internet.

Computing and Inclusion

At our school we teach Computing to all children, whatever their ability and individual needs. Computing forms part of the school's curriculum policy to provide a broad and balanced education to all children. Through our Computing teaching we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, differentiation – so that we can take some additional or different action to enable the child to learn more effectively (for example, a lot of software can be differently configured for different ability ranges). We are in the process of updating our assessment of Computing. Our assessment will be in line with the Government's recommendations. Assessment against the National Curriculum allows us to consider each child's attainment and progress and this ensures that our teaching is matched to the child's needs.

Intervention through School Action and School Action Plus will lead to the creation of an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to Computing in other subjects. In some instances the use of Computing has a considerable impact on the quality of work that children produce, by increasing their confidence and motivation.

Similarly, Computing can be used to extend children who are gifted. This could be done through using higher levels on software, by asking children to use Computing to research an area of the curriculum or through asking them to record results using a computer, for example.

We enable pupils to have access to the full range of activities involved in learning Computing. We have a range of software which is designed to include all learners, for example grid clicking. Our hardware can accept a range of input devices catering to pupils with specific difficulties.

Children are to participate in activities outside the classroom, for example, a visit to the City Learning Centre, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

Resources

The school is networked, with separate areas for management staff, teaching staff, administration staff and pupils. Most software is installed on the network, although some is installed on individual computers. The school has Broadband and WIFI access.

The school has a Computer Room with 15 computers and an LCD TV. This is in addition to the desktop computers for teacher and pupil use in classrooms. This means that we have a total of 24 computers available for pupil use. The school has a computer-to-pupil ratio of 1:11, in line with recommendations from the National Grid for Learning. Each classroom also has an interactive whiteboard.

The school also has 29 iPads for the children to use. These are stored safely in an iPad trolley in the Computer Room. Only teachers have the code for the trolley. Some members of staff have a personal i-Pad to support their school work.

We also have this additional Computing hardware, which is kept in the previous Computer Room or in classrooms unless specified;
- digital cameras
- digital video camera.
- scanner
- easi-view projectors
- easi-speak microphones/voice recorders
- Bee Bots
- multi card reader
- microphones and headphones
- portable projector

The following software is installed on the network for use on all computers;
- Microsoft Office
- Primary Games volumes 1 to 3.
- Kar2ouche
- Scratch
- SMARTboard software
- Media playing software

- 2Simple software (including 2Animate, 2Create, 2Draw, 2Create a story, 2Investigate, 2Paint a picture, 2Type and Infant Video Toolkit.)
- Virus protection.

We have access to the following online materials;
- Espresso
- Mathletics
- Living Library
- LGFL e-mail account for staff
- School website.

We have support from faults and maintenance issues with Camden Education IT support.

Social Media Policy

Children and staff need to be aware of how to stay safe when online, please refer to the Social Media Policy for detailed guidance.

Children also need to be taught how to handle Computing equipment, including i-Pads, safely. The learning environment needs to be calm and pupils need to be able to follow instructions so that risks can be controlled.

Assessment, Recording and Reporting

Teachers will carry out formative assessment during Computing lessons by observing children's Computing skills and use these observations to inform future planning.

If The Government provides us with further guidance on how to assess the children, we will align existing assessment to meet these requirements.

In the Foundation Stage, achievement in Computing forms part of the Knowledge and Understanding of the World section of the annual written report to parents.

In KS1 and KS2, Computing is reported on as a discrete subject in children's written annual reports.

Responsibilities

The responsibility for drawing up this policy lies with the Computing subject leader. Whole staff involvement in drawing up the policy is essential to ensure a shared approach to developing good practise in teaching and learning throughout the school.

The Computing subject leader has specific duties that are undertaken.

The Computing subject leader is responsible for supporting colleagues with the planning, teaching and assessment Computing.
The Computing subject leader will maintain the budget and purchase new hardware and software.
The Computing subject leader is responsible for the vision within the school and will keep abreast of developments in Computing.
The Computing subject leader will audit Computing skills amongst staff and organise training where necessary.
The Computing subject leader will monitor the quality of teaching and learning through monitoring teacher's planning and assessment, samples of children's work and through lesson observations.

Please note that whilst the Computing subject leader may be able to advise on simple technical issues, technical difficulties should be reported to the technician via SITSS.

Monitoring and Review

The Headteacher, Assistant Headteachers and the Computing subject leader will monitor the effectiveness of the policy.