



Computing Policy

October 2016

Approved by Governing Body: November 2016

Next Review due: October 2019

Purpose of Policy

This policy will form the basis upon which we map out the expectations for Computing at Key Stage 2. It will outline the purpose, nature and management of how computing is taught and learned in Churchfields Junior School and will inform new teachers of expectations.

The policy reflects the views of all the staff of the school. It has been drawn up following consultation with all staff and children, and has full agreement of the Governing Body.

All staff have read and agreed the Policy, and are fully aware of their role in its implementation. Staff and parents have access to the Policy via the Churchfields Junior School website.

Aims and Outcomes

The national curriculum for computing aims 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.

Computing and the Primary Curriculum

A high-quality computing education equips pupils to understand and change the world through logical thinking and creativity, including by making links with mathematics, science, and design and technology. The core of computing is computer science, in which pupils are taught the principles of information and computation, and how digital systems work. Computing equips pupils to use information technology to create programs, systems and a range of media. It 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.

Computing Programme of Study – Switched on Computing

All teachers use the Switched on Computing scheme of work to inform planning. Cross-curricular links must be made to year group planning. The Programme of Study for computing, delivers clear progression of skills from Year 3 to Year 6, supports a wide range of differentiation and embeds Online Safety to ensure safe and responsible use of technology.

The computing scheme includes six units for each year group, which ensures subject content is covered in alignment with the National Curriculum.

- Programming
- Computational thinking
- Creativity
- Computer networks
- Communication and collaboration
- Productivity

Computing is embedded in most curriculum areas, through use of the interactive white boards to show video or pictures, or through visualisers to enhance teachers' presentations, iPad apps or through digital camera work. A range of digital resources, both online and network based, are used to enhance learning across the curriculum. We encourage innovative or experimental uses of ICT in any curriculum area or extra-curricular activity, with the aim of feeding successful practice into the classroom.

Role and Responsibilities of the Subject Leader

- To support and guide the classroom practice of teachers and support staff
- To ensure coverage, continuity and progression in planning
- To ensure the computing scheme of work Switched on Computing is implemented in all classes
- To ensure Online Safety is at the forefront of all computing lessons
- To ensure teachers, support staff and children are aware of the procedures in reporting e-Safety issues
- To monitor and evaluate the effectiveness of computing teaching and learning
- To update documentation where necessary
- To produce action plans for the School Development Plan, prepare bids and manage the Computing budget effectively.
- To liaise and consult with outside agencies where appropriate
- To prepare and lead INSET
- To attend relevant INSET training, keeping staff abreast of new developments
- To attend appropriate courses to update knowledge of current developments
- To take an overview of whole school planning to ensure that opportunities occur for pupils to develop a range of computing skills and that progression is taking place
- To review regularly the contribution made by computing to a meaningful curriculum

Equal Opportunities and Inclusion

All children will be given an equal opportunity to maximise their individual potential; this is regardless of ability, gender, race, religion, disability or talent. Activities both within and outside the classroom are planned in a way that encourages full and active participation by all children, matched to their knowledge, understanding and previous experience.

Equal emphasis will be given to the roles of both men and women in society, at all levels of scientific enquiry. Every effort will be made to ensure that activities are equally interesting to both boys and girls.

In the planning stage, teachers ensure there is appropriate differentiation for all abilities –including gifted and talented, SEN and EAL. All children are challenged in computing at an appropriate level for the individual.

Teaching and Learning

Computing and ICT are embedded in most curriculum areas, through use of the interactive white boards to show video or pictures, or through visualisers to enhance teachers' presentations, through the use of iPads and digital camera work. A range of digital resources, both online and network based, are used to enhance learning across the curriculum.

All Curriculum Leaders are responsible for promoting and monitoring the integration of Computing and ICT into planning, teaching and learning in their area. We encourage the intelligent use of Computing and ICT where helpful rather than its universal use out of obligation.

We encourage innovative or experimental uses of Computing and ICT in any curriculum area or extra-

curricular activity, with the aim of feeding successful practice into the classroom.

More Able

Digital leaders are individuals from years 5 and 6 with exceptional computing skills and teaching ability. Techie Angels apply each year through a rigorous application process led by existing Digital Leaders. Children must demonstrate basic computing skills and a keen interest to help teach and led small groups in lower school lessons.

The role of a Techie Angel:

- Attend weekly meetings to upskill computing knowledge
- Support children and teachers in their allocated lower school classes
- Support assemblies and whole school events by filming and operating technical equipment e.g. sound, lighting, projectors etc.
- Lead Online Safety assemblies in the Autumn term

Assessment, Recording and Reporting

Gathering evidence of pupil attainment is an integral part of assessment, which is built into the Switched on Computing scheme of work. Teachers can obtain evidence by direct observation of children at work, questioning pupils or listening to their conversations and saving their finished work. Parents receive information regarding their child's knowledge, skills, progress and effort in computing in the end of year reports. Work should be saved on the Shared Drive in year group specific folders. All pupil work should be given the pupil's name to ensure monitoring and assessment can be achieved accurately. Pupils should complete their own work, to be saved, to ensure individual progress can be affectively monitored and judged. Assessment is in the form of expected outcomes in a half-term assessment tracker grid, which staff complete at the end of each of the six units taught.

Monitoring and Accountability

Teaching, learning and assessment is monitored by the Computing Leader. Monitoring will be completed every half term and full term in different ways. Staff are made aware at the beginning of each year, expectations for each piece of work in each year group, for each half term. A Curriculum Assessment Grid is available on the school network for teachers to refer to. This document will be assessed and revised at the end of each academic year.

Monitoring by the Computing Leader will take the form of the following:

- Pupil interviews held at the beginning and end of each academic year.
- Informal discussions with teachers, support staff and pupils.
- Assessment of saved work.
- Observation of computing lessons.
- Team teaching where required/requested.

The Computing Leader will give feedback to staff to celebrate achievements and examples of good practice. Areas identified within the monitoring process will be feed into future staff training and development, and where there are more specific issues the Computing Leader will support staff with training and development of subject knowledge.

Resources and Equipment

We have one hard-wired computing suite with 32 desktop computers, and a rechargeable iPad trolley with 16 iPads. The suite contains one black and white printer. A timetable is drawn up termly to ensure all classes have a one hour long computing session per week.

Each class has an interactive white board (IWB), a desktop computer with network access, a visualizer and an iPad.

The network is managed by an external company, *Joskos*, and day-to-day issues are reported by staff electronically.

There is a large bank of centrally held resources [digital cameras, and digital microscopes (Y6 cupboard) etc...] which can be booked out from the office upon request.

The computing leader is responsible to suggest or bid for resources as the need arises.

All children should have opportunities to use ICT; including the internet, iPads, and digital cameras across the curriculum.

Online Safety

New technologies open up many exciting benefits and opportunities for children and young people but they can also present some risks. Technology is becoming all pervasive, touching all areas of society, with children and young people having increasing access to personal technology such as web-enabled phones. We must ensure, therefore, that a policy is in place to help children and young people stay safe when using new technology, and to ensure that where problems do occur, children and young people (and their parents and carers) have support in dealing with them effectively (*see Online Safety policy for full documentation*)

We use the following measures to maximise pupils' safety:

- We have the 'Think B4 U Click' rules to remind children to practice Online Safety when using technology both at school and at home
- All users must sign an Acceptable Use Policy (AUP) before being given access to our network. This requires them to agree not to access inappropriate material from the network and to treat others with respect when communicating. Anyone who breaks the AUP will have permission to use the network withdrawn
- We maintain a strong antivirus system and a firewall which blocks the majority of inappropriate content. Teachers must screen videos and websites before they are shown to children in lessons
- Children and staff are provided with a safe, monitored email service, and *Frontier*, a virtual learning environment
- Online Safety is embedded in each computing session, specific to the unit. Links are also made in PSHE and philosophy lessons
- Children are taught to evaluate the information they find online, and to put information they use in



their own words, avoiding plagiarism

- Online Safety training is given to teachers and support staff
- Photographs that include pupils will be selected carefully and will not enable individual pupils to be identified with their full name
- Cyber-bullying is treated with the same degree of seriousness as any other kind; involving parents where appropriate (see bullying policy for further information)
- Serious concerns about the Online Safety of a child should be referred to the Child Protection officer as with any other case of a child at risk

Review

This policy is reviewed by staff and governors every three years. Parents are most welcome to view copies of the policy on the school's website and comments are invited from anyone involved in the life of the school.