Southfields Primary- Computing Policy

Person responsible: Martin Bainbridge
Date policy written: September 2020
To be reviewed: Biennially

RELATED POLICIES

It is essential that this policy is considered alongside the following Southfields policies as they contain guidance and information integral to both delivery of the Computing curriculum and the wider PSHE values of the school.

- Online Safety Policy
- Acceptable Use Policy
- Social Media Policy
- Safeguarding Policy
- PSHE Policy

Given the cross curricular nature of Computing the following school policies are also relevant here.

- Teaching and Learning
- Assessment and Record Keeping
- Marking and Feedback
- Health and Safety
- SEND
- EYFS
- Equality Policy

From September 2020 reference should also made to the guidelines and amendments made as part of our school Covid 19 reopening plans whilst they remain relevant.

STATUTORY REQUIREMENTS

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 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.

Key stage 2

Pupils should be taught to:
 design, write and debug 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
 use logical reasoning to explain how some simple algorithms work 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 world wide web; and the opportunities they offer for communication and collaboration
 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
 use technology safely, respectfully and responsibly; recognise acceptable /unacceptable behaviour; identify a range of ways to report concerns about content and contact.

INTRODUCTORY STATEMENT OF INTENT

Technology is changing the lives of everyone. Our Computing curriculum equips children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology. It is our intention to enable children to find, explore, analyse, exchange and present information. We also focus on providing creative opportunities and experiences so we can develop the skills necessary for children to be able to use information in a discriminating and effective way. We want pupils to know, remember and understand more in computing so that they leave primary school computer literate. We teach skills explicitly within computing and encourage them to be applied across other curriculum subjects, enabling children to be confident, creative and independent learners. As well as the benefits of computing we are also aware of the risks. We prepare our children to stay safe online through the use of e-safety awareness sessions and safer internet days.

AIMS

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.

Computational thinking

The thinking that is undertaken before starting work on a computer is known as computational thinking. Computational thinking describes the processes and approaches we draw on when thinking about problems or systems in such a way that a computer can help us with these.

Computational thinking is not thinking about computers or like computers. Computers don't think for themselves. Not yet, at least!

Computational thinking is about looking at a problem in a way that a computer can help us to solve it.

When we do computational thinking, we use the following processes to tackle a problem:

- Logical reasoning: predicting and analysing
- Algorithms: making steps and rules
- Decomposition: breaking down into parts
- Abstraction: removing unnecessary detail)
- Patterns and generalisation: spotting and using similarities
- Evaluation: making judgements

IMPLEMENTATION

Teaching is planned from the Computing programmes of study of the National Curriculum for KS1 and 2 and the Statutory Framework for EYFS.Teachers plan Computing learning flexibly and ensure that the appropriate balance of whole class, group and individual teaching is retained. Underpinning this is the acknowledgement and understanding that Computing is a hands on, practical subject which encourages

As a school, Southfields has chosen the Purple Mash Computing Scheme of Work from Reception to Year 6. The scheme of work supports teachers in delivering fun and engaging lessons which help to raise standards and allow all pupils to achieve to their full potential. The scheme of work more than adequately meets the national vision for Computing. It provides immense flexibility and strong cross-curricular links. The cross curricular implementation of computing skills and consequently the Computing Curriculum area on the school cloud server contains both complimentary and alternative lessons, activities and plans for teachers to use.

Southfields subscribes to a variety on Online Learning platforms to support children's use of ICT. Each of these platforms contains activities which are aligned to the Computing requirements of the National Curriculum. Subscriptions for Purple Mash, Education City, Espresso and Barefoot Computing are reviewed annually to ensure they are being used by school staff and children.

Online Safety

Additional resources are used as part of the Online Safety provision and policy. Southfields has adopted the Google Legends scheme to use alongside the resources outlined above. We are also registered with National Online Safety (NAS) and South West Grid For Learning (SWGfL) for both guidance and curriculum resources. Engagement with these organisations will lead to the development of the Digital Leader Scheme for pupils which will be launched in October 2020. The teacher responsible for this is M Bainbridge, who is an accredited National CEOP Ambassador and Trainer.

Home Learning

A central part of expectations around Home Learning is based on the children being comfortable with accessing the wide range of exciting IT resources that the school makes available. Some children cannot access online learning and of course provision is made for those children. Additional computer and broadband equipment which has been provided for the school as part of the national scheme to support such children is also utilised.

There are two main ways to support home learning.

- Subscriptions to a wide range of online learning platforms. Work is set weekly through Purple Mash, but there is also the expectation that children access tasks set through Education City and Times Tables Rock Stars, as well as Tapestry and Mini Mash for Early Years. The children and parents are encouraged to communicate with the school via Class Dojo.
- Our Virtual Learning Environment (VLE) is accessed through our school website. This contains a wealth of resources, guides and activities which are regularly updated and reviewed.

PROVISION

In an ever-changing situation given the rapid development of technology, Southfields is determined to ensure staff, parents and children have access to a range of up to date, maintained computing equipment. This is inevitably constrained by budgetary circumstances but is identified as a priority in our school financial planning. This is supported by providing equipment using leasing.

Technical support for computing equipment is provided through;

- a contract with RMG systems, who visit school fortnightly and are available for online support between visits.
- T Adams provides day to day technical support and maintenance of the school website, under the direction of the Computing Leader and SLT. He is timetabled to allow for technical support as well as teaching Computing, alongside his role as a TA.

Equipment

At Southfields we are committed to providing equipment to enable delivery of our computing curriculum in the following areas (across all year groups):

- Text and Multimedia
- Images, Video and Animation
- Sound

- Electronic Communication
- Digital Research
- Data Handling
- Data Logging
- Logo and Control
- Simulations and Spreadsheets
- Online safety

IMPACT

Assessment takes place throughout the course of a lesson or unit of work. It may take the form of interactive quizzes or questioning. The Purple Mash Computing Scheme of work provides for assessment against individual curriculum statements, and this is used in conjunction with our milestones which apply to phases and multiple topics on a yearly basis. For each year pupils are assessed as having met the expected milestones, exceeding them or emerging in the expectations of that phase.
Samples of work are gathered by the Computing lead and this forms a school digital portfolio.

Special Educational Needs Disability (SEND) / EAL/Pupil Premium / Higher Attainers
Any child with identified SEND or in receipt of pupil premium funding may have work additional to and different from their peers in order to access the curriculum dependent upon their individual needs. Southfields Primary aims to provide for all children with a curriculum that allows for appropriate differentiation. This may be by outcome, task, resources, support, interest or ability groupings as appropriate.

Children who have English as a second language are given extra support, as necessary, and can include access to both multilingual resources and translation software such as, but not limited to, Google translate. The school website enables translation of both school information and curriculum information.

ROLE OF THE COMPUTING SUBJECT LEADER

- Overseeing the Computing curriculum.
- Monitoring the learning and teaching.
- Ensuring the assessment is relevant and informative.
- assisting and coordinating purchasing decisions in liaison with school management and the school action plan
- Ensuring all staff are appropriately trained in both ICT hardware and software, including the school cloud server.
- Keeping up to date with developments in ICT.
- Liaising with the technician team
- Observing Computing lessons.
- Monitoring/supporting Computing planning after liaison with teachers.
- Preparing policy documents.
- Advising colleagues and helping to develop expertise.
- Contributing to staff ICT INSET training.
- Supporting the technical team in ensuring our monitoring software for Online Safety is working correctly and providing regular information to the headteacher.

- Working alongside the school safeguarding team to support, advice and train staff in their knowledge of Online Safety, both for the children and in their own personal use of ICT. This includes delivering training and information to parents and children in both one to one meetings and information sharing events.
- Organising, coordinating and monitoring Safer Internet Day and following up issues and themes which are raised.
- Monitoring displays around the school, including the IT suite, and ensure Online Safety messages are visible and delivered in classes and assemblies.
- Working alongside T Adams and school admin to ensure GDPR statements are up to date and valid.

SCHOOL WEBSITE

Southfields is very proud of our school website. Google analytics shows it is incredibly well used by parents and great pride is taken to ensure it is relevant and up to date for everyone concerned.

The Computing Lead has a central, partnership role with the development, maintenance and reviewing of the school website. This is done primarily alongside T Adams, but in liaison with all stakeholders including school management. As annual audit is conducted to ensure our school website is fully compliant with national government expectations, although the school has also signed up to an alert service which provides changes in those requirements.

Links to British Values and GARK

This policy reflects British values through the Southfields **GARK** values of **G**ood learning, **A**cceptance, **R**espect and **K**indness. Teachers encourage acceptance and engagement with the fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs. This is also reflected in our commitment to Online Safety.

Links to SMSC

Teachers ensure children's' Spiritual, Moral, Social and Cultural development is woven through the Computing curriculum.

Spiritual

Spiritual development is shown by their: sense of enjoyment and fascination in learning about themselves, others and the world around them

Teachers encourage the use of imagination and creativity in their learning and willingness to reflect on their experiences through the activities embedded in our Computing curriculum

Moral

Computing supports moral development by enabling children to investigate and offer reasoned views about moral and ethical issues and ability to understand and appreciate the viewpoints of others on these issues. Children discuss and evaluate a range of social

and moral issues found in a wide range of genre including the Internet, newspapers, fiction, television and other media.

Social

The Computing curriculum supports social development by helping children use of a range of social skills in different contexts. Children develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute positively to life in modern Britain.

Cultural

The Computing curriculum supports cultural development by exposing children to a wide range of themes and materials from a range of cultures. Teachers develop children's' understanding and appreciation of the wide range of cultural influences that have shaped their own heritage and those of others. Teachers develop children's' understanding and appreciation of the range of different cultures within school and further afield as an essential element of their preparation for life in modern Britain.

LINKED WEBSITES RELATED TO COMPUTING CURRICULUM AND POLICY

School website; www.southfieldsprimary.com

Curriculum;

https://southfieldsprimary.com/vle

www.purplemash.com
www.educationcity.com
www.discoveryeducation.co.uk/
www.ttrockstars.com

Behaviour and Parental support
www.classdojo.com

Technical
www.rmgsystems.com

ONLINE SAFETY

www.ceop.police.uk
https://www.thinkuknow.co.uk/
https://swgfl.org.uk/online-safety
https://nationalonlinesafety.com/

The lists are by no means exhaustive