Computing Policy

'In everything, do to others what you would have them do to you.'
Matthew 7:12

Be Kind   Be Forgiving   Be a Good Friend   Be Honest   Love One Another

Be part of our St John's family!

Introduction

Our vision is for all teachers and learners in our school to become confident users of computing so that they can develop the skills, knowledge and understanding which enable them to use appropriate computing resources effectively as powerful tools for teaching & learning.

Our school policy sets out a framework within which teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment. It should be read in conjunction with the long-term school plan, which sets out what the children will be taught throughout their time at St John's.

This document is designed for all teaching staff, all staff with classroom responsibilities, school governors, inspection teams and LA adviser/inspectors. Electronic copies are available for all teachers and teaching support staff via Google Drive. Copies can be made available, on request, to supply / trainee teachers, governors and parents. Policies can also be found on our website and paper copies are available in the Policy folder held in the main office.

'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 is 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.' (National Curriculum 2013)

Aims

The aim of Computing teaching at St John's is to:

- enable children to become autonomous, independent users of computing technologies,

- develop a whole school approach to computing ensuring continuity and progression in all strands of the Computing National Curriculum,

- use computing technologies as a tool to support teaching, learning and management across the curriculum,

- provide children with opportunities to develop their computing capabilities in all areas specified by the Curriculum Programmes of Study,

- ensure computing technologies are used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities,

- maximise the use of computing technologies in developing and maintaining links between other schools, the local community including parents and other agencies.

Teaching and Planning:

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 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 Two

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

Teaching and Learning

All Computing lessons have clear learning objectives and success criteria, which are shared and reviewed with the pupils effectively throughout the lesson.

A variety of strategies are used by teachers and support staff including questioning, discussion, demonstration and presentation of skills which are also used to assess the children's progress. The information is used to identify next steps in the children's learning. The children are

encouraged to expand their knowledge further and practice skills learnt at home.
Lessons make effective links with other curriculum areas and subjects. When appropriate links are made with current curriculum topics. Skills should be taught to the children who can then be applied across various curriculum areas to demonstrate understanding.

Activities are challenging, thought-provoking, motivating and extend pupil's learning and enjoyment of the subject.

Teachers plan Computing units of work using the National Curriculum (2013) showing differentiation for less able and more-able pupils. Lessons are evaluated which informs future planning and allows assessment to take place. Objectives for each lesson are skills based and progressive, taught in a variety of ways and revisited to allow application in different areas of the curriculum.

The recording of Computing can take various forms including:
- Google Classroom (Key Stage 2 by both pupils and adults)
- Photos (taken by pupils or adults)
- 'Pink' evidence books
- Working walls in classrooms and displays
- Practical activities e.g. art/models
- Comments/observations by children, recorded by adults
- Printed off samples of work, annotated by children or adults.

Resources

There are various computing resources stored centrally and in each classroom. Equipment will be monitored and recorded on the school's asset register. Registering of equipment and new equipment will be done by Comptech. Resources should be locked away and follow school procedures where appropriate. General equipment can be booked by speaking to the Computing subject leader or deputy headteacher. All faults and breakages of equipment should be reported to the Computing subject leader, deputy headteacher or the School Business Manager as soon as possible.

Assessment

Throughout the year computing is assessed in a variety of ways both summative and formative. Teachers assess the children's skills throughout the units of work. Teachers are asked to annotate plans with children of concern or children who have achieved more than expected. Work should be evidenced digitally in Key Stage 2 via Google Classroom and printed and annotated and samples of computing work should be included in pink evidence books in Key Stage 1.

Extra-curricular opportunities

Children and staff will be encouraged to attend computing events held by other Blackpool primary schools and the local authority.

Monitoring

The computing leader once a term monitors skills and progression throughout the school. A selection of work is collected and moderated in staff meetings and in subject leader time. Pupils may also be involved in monitoring through pupil interviews. A summary of computing

attainment, teaching of skills and further developments are recorded annually to inform subsequent school development plans. Feedback is given by the computing leader to individual teachers celebrating successes and giving clear next steps.

Parents and Carers

Parents and carers have an important role to play in helping their children learn about technology and computing. Parents and carers are encouraged to set rules and guidelines for the use of technology at home. Workshops will be provided to parents as and when necessary as well as computing newsletters and a dedicated section of the website to ensure parents have a port of call when they are unsure about what to do. Parents are encouraged to speak to the computing leader or member of the SLT if any problems arise.

Computing across the curriculum

The teaching of English, Maths and other curriculum subjects are promoted strongly in computing as part of this school's drive to raise standards in English and Mathematics. Computing is used to extend, enhance and enable the pupils to practise the skills of language and English and Maths.

English
In Key Stage 1 and 2, children are encouraged to use computing to help revisit skills and prior learning as well as independent work to develop phonics skills. It is also used to record work to support their ideas.

Maths
At both key stages, pupils are given a variety of websites that they can use independently to develop skills and build on prior learning.

Other Curriculum Subjects
Computing can be used to enhance topic work by allowing children to access images and websites to make the curriculum content more relevant.

Subject Leadership and Management

Subject Leader: Miss Lyndsey Walsh

The role of the computing leader is to:

- Take the lead in policy development and review, including the continuing successful implementation of the computing curriculum.

- Support colleagues in the development of weekly plans from schemes of work.
  Keep up to date on local and national initiatives and share information.

- Take responsibility for the purchase and organisation of computing resources

- Encourage the professional development of all school staff.

- Monitor computing levels, moderate examples of recorded work and drop into lessons taught across the school.

- Dealing with any online incidents alongside SLT, and ensuring school ICT equipment is working effectively.