St Swithun's C of E School ICT and Computing Policy

January 2016

Introduction

This policy reflects the school values and philosophy in relation to the teaching and learning of Computing. At St Swithun's, we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively. This policy sets out a framework within which teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment.

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 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.

• To ensure that the children are safe when using the Internet and they are aware online safety protocol if they feel unsafe on the internet inside or outside of school.

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.

Rationale

 At St Swithun's, we believe that ICT and Computing:

• Gives pupils immediate access to a rich source of materials.

• Can present information in new ways which help pupils understand access and use it more readily.

- Can motivate and enthuse pupils.

- Can help pupils focus and concentrate.

- Offers potential for effective group working.

Teaching and Learning

By the end of 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.

By the end of key stage 2 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 world-wide 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.

Resources

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 schools ICT technician/ICT and Computing Leader of any faults as soon as they are noticed.

Resources are located in communal areas in the school.

ICT and computing network infrastructure and equipment has been sited so that:

- Every classroom from nursery to year 6 has a laptop connected to the school network and an interactive whiteboard with sound, DVD and video facilities.

- There are 2 laptop trolleys in Key Stage 2 containing 15 laptops with internet access available to use in classrooms.

- The teaching of Computing across Key Stage 2 is 'blocked', so the teaching of Computing occurs every half term.

- IPads, Beebots, Roamers and other Computing resources are kept within the school and are accessible to all teachers.

- 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 daily, and an ICT advisor from 123ICT who supports Computing in the school once a week.

Planning

As the school develops its resources and expertise to deliver the 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. Where possible, Computing will be taught in the context of the 'Topic' for the year group, and cross-curricular learning opportunities will be actively sought by teachers to embed Computing skills.

Staff will follow medium term plans with objectives in line with the national curriculum and use the same format for their weekly planning sheet. A minority of children will have particular teaching and learning needs 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.

To find coverage of the planning throughout the school refer to the 'Whole School Curriculum Plan'. (Which can be found in the 'Curriculum' folder in the 'Shared Area' folder on the school network)

Assessment and record keeping (also see assessment policy)

Teachers regularly assess capability through observations and looking at completed work. Key objectives to be assessed are taken from the national curriculum to assess key ICT and computing skills each term. Assessing ICT and computing work is an integral part of teaching and learning and central to good practice. It should be process orientated -

reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of the concepts of ICT and computing.

As assessment is part of the learning process it is essential that pupils are closely involved. Assessment can be broken down into:

• Formative assessments are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.

• Summative assessment should review pupils' capability and provide a best fit level. Use of independent open ended tasks, provide opportunities for pupils to demonstrate capability in relation to the term's work.

There should be an opportunity for pupil review and identification of next steps. Summative assessment should be recorded for all pupils. To ensure assessment is manageable and meets the needs of the class, assessment will highlight the children who have 'Mastered' areas of the curriculum, or who are 'Emerging' or 'Developing' in the Computing curriculum.

Depending on the needs of the class will depend on how the individual classes planning is adapted to meet the needs of all learners.

We assess the children's work in ICT and computing by making informal judgements as we observe the children during lessons.

ICT and computing work is saved on the school network. Other work may be printed and filed within the subject from which the task was set. There is also an evidence folder, managed by the Computing leader, kept on the 'StaffShared' drive.

Monitoring and evaluation

The Computing Leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring cycle. This may be through lesson observations, book trawl of looking at other data for the subject. The subject leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school.

We allocate special time for the vital task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

Pupils with special educational needs (see also SEN policy)

We believe that all children have the right to access ICT and computing. We teach ICT and computing to all children, whatever their ability. ICT and computing forms part of the national curriculum to provide a broad and balanced education for all children. Through the teaching of ICT and computing we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Where appropriate ICT and computing can be used to support SEN children on a one to one basis where children receive additional support.

Equal opportunities

We will ensure that all children are provided with the same learning opportunities regardless of social class, gender, culture, race, disability or learning difficulties. As a result we hope to

enable all children to develop positive attitudes towards others. All pupils have equal access to ICT and computing and all staff members follow the equal opportunities policy. Resources for SEN children and gifted & talented will be made available to support and challenge appropriately.

The role of the Computing Leader

- There is an ICT and computing leader who is responsible for producing an ICT and computing action plan and for the implementation of the ICT and computing policy across the school.

- To offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of computing.

- To work with the Computing Technician to ensure the upkeep of equipment.

- To monitor classroom teaching or planning following the schools rolling programme of monitoring.

- To monitor the children's learning, looking at samples of different abilities.

- To lead staff training on new initiatives.

- To attend appropriate in-service training and keep staff up to date with relevant information and developments.

- To have enthusiasm for Computing and encourage staff to share this enthusiasm.

- To keep parents and governors informed on changes in the curriculum, or Computing matters that may be of interest or affect them.

- To help staff to use assessment to inform future planning.

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.

- Providing equality of opportunity through teaching approaches.

- Using appropriate assessment approaches

- Setting suitable Learning Objectives that are inclusive of all learners.

- Ensure the children are using the Internet safely, in accordance with the Online Safety Policy.

Staff training

The ICT and computing leader will ensure that staff are trained on new initiatives. Also, they will be responsible, where possible, for assessing and addressing staff training in response to individual needs and requests throughout the year. Consequently, individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the ICT and Computing leader of any additional training they require.

Health and safety

The school is aware of the health and safety issues involved in children's use of ICT and computing. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the school's Computing leader/Computing technician/Business Manager.

- Trailing leads should be made safe behind the equipment

- Liquids must not be taken near the computers

- Magnets must be kept away from all equipment

- Safety guidelines in relation to IWBs will be displayed in the classrooms

- online safety guidelines will be set out in the online safety policy.

• The ICT and computing technician will be responsible for regularly updating anti-virus software.

• The agreed rules for safe and responsible use of ICT and computing and the internet will be displayed on the Laptop trolleys, so they can be seen and discussed during the sessions.

Signed:…………………………………………………..(Head teacher)

Signed:………………………………………………….. (Governors)

Date for Review:……………………………………….