



Computing Policy

Swinderby All Saints Church of England Primary School

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Reviewed:	Bi-annual	
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Introduction

The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. In an increasingly digital world there now exists a wealth of software, tools and technologies that can be used to communicate, collaborate, express ideas and create digital content. At Swinderby All Saints Primary School, we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive, approach to the learning how computer systems work, the use of IT and the skills necessary to become digitally literate and participate fully in the modern world. The purpose of this policy is to state how the school intends to make this provision.

Aims

The school's aims are to:

- Provide a broad, balanced, challenging and enjoyable curriculum for all pupils.
- Develop pupil's computational thinking skills that will benefit them throughout their lives.
- Meet the requirements of the national curriculum programmes of study for Computing at Key Stage 1 and 2
- To respond to new developments in technology
- To equip pupils with the confidence and skills to use digital tools and technologies throughout their lives.
- To enhance and enrich learning in other areas of the curriculum using IT and computing.
- To develop the understanding of how to use computers and digital tools safely and responsibly

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

Rationale

The school believes that IT, computer science and digital literacy:

- Are essential life skills necessary to fully participate in the modern digital world.
- Allows children to become creators of digital content rather than simply consumers of it.
- Provides access to a rich and varied source of information and content.
- Communicates and presents information in new ways, which helps pupils understand access and use it more readily.
- Can motivate and enthuse pupils.
- Offers opportunities for communication and collaboration through group working.
- Has the flexibility to meet the individual needs and abilities of each pupil.

INTENT, IMPLEMENTATION AND IMPACT

INTENT

Swinderby All Saints Church of England Primary School's Computing Curriculum is broad and ambitious, and designed to give all our pupils, particularly those that are disadvantaged and pupils with SEND, the knowledge and cultural capital they need to succeed in life.

Early years (see also early year's policy)

It is important in the foundation stage to give children a broad, play-based experience of IT and computing in a range of contexts, including off-computer activities and outdoor play. Computing is not just about computers. Early years learning environments should feature IT scenarios based on experience in the real world, such as in role-play. Children gain confidence, control and language skills through opportunities such as 'programming' each other using directional language to find toys/objects, creating artwork using digital drawing tools and controlling programmable toys. Outdoor exploration is an important aspect and using digital recording devices such as video recorders, cameras and microphones can support children in developing communication skills. This is particularly beneficial for children who have English as an additional language.

By the end of key stage 1 pupils are taught to:

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions
- write and test simple programs
- use logical reasoning to predict the behaviour of simple programs
- organise, store, manipulate and retrieve data in a range of digital formats
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

By the end of key stage 2 pupils are 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.

IMPLEMENTATION

Swinderby All Saints Church of England Primary School's Computing Curriculum is designed in a way that allows pupils to transfer key knowledge to long-term memory; it is sequenced so that new knowledge and skills build on what has been taught before and towards defined end points. For further information, refer to Teaching and Learning Policy, Assessment Policy, Marking and Feedback Policy and subject specific policies. Our key principles of implementation include:

- Teachers have expert knowledge of the subjects they teach.
- Teachers present key concepts clearly and invite appropriate discussions.
- Teachers check pupils' understanding effectively, identifying and correcting misunderstandings
- Teachers ensure that pupils embed key concepts in their long-term memory and apply them fluently.

- Teachers enable pupils to transfer key knowledge to long-term memory, sequence the learning and ensure that it is building towards the defined end points.
- Teachers use assessment to check pupils' understanding
- Teachers use assessment to help pupils embed and use knowledge fluently, develop their understanding, and not simply memorise disconnected facts.

These core principles are cornerstones of the school's continuing success:

HIGH EXPECTATIONS

The school, its teachers, governors, parents and other adults have high expectations of our pupils. This produces a consistently positive and respectful learning ethos in and outside the classroom through displays and the celebration of student work. The students are well behaved, fully engaged in their learning and are confident, respectful members of the school community.

PURPOSEFUL LEARNING JOURNEY

The school, teachers, governors and other adults view the school as the vehicle for each individual pupils' learning journey, which is linked, to real life resulting in all contributing to and making explicit links between each year group. As a result, pupils have a more holistic and integrated learning experience that excites and inspires them whilst ensuring they feel part of a learning community and their individual learning experiences makes increasing sense to them.

PLANNING

Lessons are planned using the National Curriculum and the National Centre for Computing Education planning (Teach Computing Curriculum). All lesson plans and resources for the curriculum are also available for teachers to use and adapt as necessary for their class. A minority of children will have particular teaching and learning requirements, 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 accordance with the school inclusion policy.

TEACHING ASSISTANTS AND OTHER ADULTS

Teaching assistants are fully involved in the delivery of teaching and learning, their roles are purposefully allocated. Pupils at all levels receive support, challenge and direction ensuring more progress is made in their learning. Support for pupils with SEND via EHCPs is graduated and needs driven, this focusses both on scaffolding learning and encouraging group and independent work.

GROUPING STRUCTURES

Teachers strategically group students in; friendship, mixed ability and ability groupings so that the students are more engaged, receive targeted help, support each other and make more rapid progress.

MARKING AND FEEDBACK

Teachers regularly assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess computing each term.

Assessment should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. 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.
- Summative assessment should review pupils' ability and provide a best-fit 'level'. Independent tasks provide a number of opportunities and scope for pupils to demonstrate their capability throughout the term.

Children's work and assessments may be recorded through saved work on devices, pictures on Seesaw or through pupil voice discussing what they have learned. We also observe the children during lessons.

IMPACT OF THE SCHOOL'S CURRICULUM

The school implements a broad balanced and enriched Computing curriculum as a result:

- Pupils develop detailed knowledge and skills across the Computing curriculum and, as a result, achieve well. This is reflected in results from national test, which exceed government expectations.
- Precision in planning, we know that the Computing curriculum is covered in the required depth exemplified within the statutory and non-statutory guidance of the national curriculum.
- Pupils have the opportunities to regularly revisit concepts and link ideas together.
- High quality programs are used; pupils have a real love of learning.
- Learning begins from two years old. Pupils have access to a range of resources.
- Development of the whole child and gaining a sense of awe and wonder, pupils are happy engaged learners eager to share their learning with adults, family and class peers.
- Strong emphasis on revision of oracy and basic skills pupils' standards are high and pupils are exceptionally well prepared for their next stage of learning.
- High focus on developing specific subject knowledge, as well as the skills in each subject, pupil's progression through the Key Stages is ensured and readily exemplified; through display and case studies, performance and demonstrable achievements.
- Focus on providing opportunities of working with children beyond their own school, sex, religion and experience pupils are able to mix, collaborate and work appreciate the views of others.
- A curriculum focusing on technology in the wider world: pupils to leave Swinderby All Saints Primary School able to integrate into modern British Society.
- Active engagement with parents, the curriculum goes beyond the classroom and promotes home study and research, parents are engaged and have ownership of the school and see it as part of the community.
- The computing curriculum being fully inclusive for all, pupils have time and opportunities to work alongside their class peers who may have learning and physical needs, this creates a strong sense of care and inclusivity.
- Lessons are planned around pupil's interests and questions, pupils are actively engaged in their own learning and eager to investigate beyond the classroom.

Health and safety (see also health and safety policy)

The school is aware of the health and safety issues involved in children's use of computing devices.

- A LA contractor tests all fixed electrical appliances in school every five years and an external contractor tests all portable electrical equipment in school every twelve months. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be PAT tested before being used in school.
- Damaged equipment should be reported to the technician or business manager who will arrange for repair or disposal.
- Children should not put plugs into sockets or switch the sockets on.
- Trailing leads should be made safe behind the equipment
- Liquids must not be taken near the computers
- E-safety forms an integral part of the curriculum and the school will deliver further education through assemblies termly and parent presentations biennially.

Security

- The Techbox technician will be responsible for regularly updating anti-virus software.
- Parents will be made aware of the 'acceptable use policy' at school entry
- All pupils will be aware of the school rules for responsible use on login to the network and will understand the consequence of any misuse.