**'The JOY of the Lord is Your Strength'** *(Nehemiah 8:10)*

# St John's Church of England Primary School
# Computing policy

## Introduction

At St John's CE Primary School, we take pride in the teachings of our unique school values that underpin all learning. We promote the British fundamental values where British law, democracy and a mutual respect and tolerance for those of other faiths, cultures and beliefs is embedded through all areas of the curriculum.

## Purpose of Study

At St John's we recognise that today's generation of children are surrounded by a vast array of technologies, therefore, a high-quality computing education is provided to equip 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.   Computers, iPads and programmable robots (BeeBots) are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At St John'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.

# Aims

St John's CE Primary School believes that every child should have the right to a curriculum that champions excellence; supporting pupils in achieving to the very best of their abilities. We understand the immense value technology plays not only in supporting the Computing and whole school curriculum but overall in the day-to-day life of our school.

We believe that technology can provide: enhanced collaborative learning opportunities; better engagement of pupils; easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

Our aims:

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Enthuse and equip children with the capability to use technology safely and responsibly throughout their lives.
- Give children access to a variety of high quality hardware, software and unplugged resources.
- Instil critical thinking, reflective learning and a 'can do' attitude for all our pupils, particularly when engaging with technology and its associated resources.
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology.
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.
- Use technology imaginatively and creatively to inspire and engage all pupils, as well as using it to be more efficient in the tasks associated with running an effective school.
- Provide technology solutions for forging better home and school links.
- Utilise computational thinking beyond the Computing curriculum.

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.

# Teaching and Learning

ICT has great flexibility to be used across the curriculum. Computing challenges children's thinking skills supports the school value of imagination – creating new possibilities and endless solutions – and promotes resilience in their learning as children encounter endless new learning experiences.

When teaching the computing curriculum, teachers plan activities where the children can work individually, with partners or as part of a small group; just as programming and information technology happens in the 'real world'. Where possible, learning is linked to pupil's own interest, other curriculum areas or their interests beyond school.

The audience for pupils work is always to be considered; whether they're presenting to one another, writing for a blog, creating software or digital content or planning to upload their work for others to use via a programme such as Scratch.

As the school develops its resources and expertise to deliver the ICT and computing curriculum, modules are planned in line with the national curriculum and allow for clear progression. The staff follow the Twinkl PlanIt scheme and supplemented by the Switched on Computing scheme, which is used throughout the school to support teachers, ensuring full curriculum coverage.

Staff will include ICT within lessons where possible following on with the teaching of specific skills. A minority of children may have particular teaching and learning requirements that go beyond the provision for their age range and to ensure engagement and challenge, teachers must take account of these requirements and plan, where necessary, to support individuals or groups of pupils where appropriate.

Through topic-related learning, our pupils have the opportunities to develop computing skills throughout Key Stages 1 and 2, with links being made to current studied themes and units of work when relevant.

## Early Years

We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts. We believe the following:

- Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language.
- Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in roleplay.
- Pupils gain confidence, control and language skills through opportunities to 'paint' on the interactive board/devices or control remotely operated toys.
- Outdoor exploration is an important aspect, supported by ICT toys such as metal detectors, controllable traffic lights and walkie-talkie sets.

## Key Stage 1 outcomes:

- 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 and computing 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.

## Key Stage 2 outcomes:

- 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.

## Assessment

Under review

## Online Safety

Online safety has a high profile at St John's CE Primary School. This policy should be read in line with the school's safeguarding & Online Safety policy.

## Inclusion

At St John's CE Primary School, we aim to enable all our pupils to achieve to their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, EAL speakers and SEN statement and non-statemented. We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities. With this in mind, we will ensure additional access to technology is provided throughout the school day and in some cases beyond the school day.

## Monitoring and review

Monitoring standards of teaching and learning within Computing is the primary responsibility of the Computing Leader.  Details of monitoring and evaluation schedules can be found in the Computing Action Plan.

Monitoring will be achieved through:

- Work scrutiny
- Learning walks
- Pupil/staff voice
- Dedicated Computing leader time

# Roles and Responsibilities

## Head Teacher

- Monitoring the implementation of the Computing Policy and its associated policies such as the Safeguarding and SEND Policies.
- Ratifying (in conjunction with the Governing Body) the Computing policy, Safeguarding policy and Computing Leader's Action Plan.
- Securing technical support service contracts and infrastructure maintenance contracts.
- Approving CPD and training which is in line with the whole school's strategic plan.
- Approving budget bids and setting them.
- Creating in conjunction with the Computing Leader, a long-term vision for Computing which includes forecasted expenditure and resources.
- Monitoring the performance of the Computing Leader in respect to their specific job role description for Computing.
- Ensuring any government legislation is being met

## Computing Leader

- Raising the profile of Computing for all members of the school community.
- Monitoring the standards of Computing and feeding back to staff in a timely fashion so they can act on areas for development.
- Ensuring assessment systems are in place for Computing.
- Maintaining overall consistency in standards of Computing across the school.
- Reporting on Computing at specific times of the year to the Governing Body/Head/Staff.
- Auditing the needs of the staff in terms of training/CPD.
- Actively supporting staff with their day-to-day practice.
- Seeking out opportunities to inspire staff in developing their practice through modelling and sharing new ideas, approaches and initiatives.
- Attending training and keeping abreast with the latest educational technology initiatives.
- Using nationally recognised standards to benchmark Computing.
- Reviewing the Computing curriculum and developing it as needed.
- Liaising with the technicians to ensure technology is maintained.
- Work collaboratively with the Designated Safeguarding Lead, particularly focusing on Online Safety, to ensure online safety provision is above adequate and legislation is in place.

## Teaching Staff and other adults

- Plan and deliver the requirements of the National Curriculum for Computing.
- Set high expectations for pupils.
- Provide equality of opportunity using a range of teaching approaches and techniques.
- Report faults to the managed service provider (Apex)
- Develop their own capability to support their teaching and students' learning
- Ensuring that equipment is used safely and responsibly
- Adhere to the Online Safety policy, included in the Safeguarding policy, at all times.

# Health and Safety

St John's Primary School is aware of the health and safety issues involved in children's use of IT and computing.

All fixed electrical appliances in school are tested by a Local Authority contractor every five years and all portable electrical   equipment in school is tested by an external contractor every twelve months.

**Approved by: C. Ascroft (Governing body) and P. Thomson (headtacher)**

**Last reviewed: September 2021**

**Next review due: September 2022**