



## Computing Policy

*At St John's we are Loved by God, Learning with Jesus and Living by the Spirit.*

### 1 Introduction

Computing in the modern world is agreed by all to be an essential resource to support learning and teaching, as well as playing an important role in the everyday lives of children, young people and adults. Consequently, schools need to incorporate the use of this technology in order to provide our pupils with the skills to access life-long learning and employment.

It is important that the pupils of St John's gain the appropriate skills, knowledge and understanding to have the confidence, creativity and capability to use computers and programming throughout their lives. All pupils in our school should be encouraged to become originators and creators rather than passive users of computers and programming. The children will be taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. 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.

Computing covers a wide range of resources including web-based and mobile learning. It is also important to recognise the constant and fast paced evolution of digital technology within our society as a whole. Currently the technologies children and young people are using both inside and outside of the classroom include:

#### Internet-technologies

- Websites
- Learning Platforms and Virtual Learning Environments
- Email and Instant Messaging
- Chat Rooms and Social Networking
- Blogs and Wikis
- Podcasting
- Video Broadcasting
- Music Downloading
- Gaming
- Mobile/ Smart phones with text, camera, video and/ or web functionality
- Other mobile devices with web functionality

#### Non-internet technologies

- Media playing devices such as DVD or CD players
- Laptops, Smart boards and Projectors
- Digital Cameras, Video Cameras, Digital Blue Cameras etc
- Remote controlled/programmable toys
- Visualizers

- Mobile phones
- Gaming
- Portable devices such as i-pods, mp3 players, PDAs
- Voting systems
- Personal computers

## 2. Purpose:

The Computing in the National Curriculum expectations split the teaching and learning of Computing into three strands (Computer Science, Digital Literacy and Information Technology). It is therefore important that children recognise the difference between what makes each one relevant to their future, as well as their everyday lives. High quality teaching of Computing, from Reception through to Year 6, utilises a combination of practical lessons and theory lessons designed to promote discussion and nurture understanding, which are also relevant to other areas of the curriculum such as PSHE and Citizenship. This policy reflects the values and philosophy in relation to the teaching and learning of and with ICT. It sets out a framework within which teaching and non-teaching staff can operate and give guidance on planning, teaching and assessment. This policy should be read in conjunction with the scheme of learning for Computing that sets out in detail what children in different year groups will be taught and how ICT can facilitate or enhance learning in other curriculum areas. This document is intended for:

- All teaching staff
- All staff with classroom responsibilities
- School governors
- Parents
- Inspection Teams
- Copies of this policy are kept centrally and are available from the office and the subject leader.

## 3. Aims and Scope

All Pupils are taught:

### Computer Science:

- To enable children to become confident coders on a range of devices.
- To create opportunities for collaborative and independent learning.
- To develop children's understanding of technology and how it is constantly evolving.

### Digital Literacy:

- To enable a safe computing environment through appropriate computing behaviours.
- To allow children to explore a range of digital devices.
- To promote pupils' spiritual, moral, social and cultural development.

### Information Technology:

- To develop ICT as a cross-curricular tool for learning and progression.
- To promote learning through the development of thinking skills.
- To enable children to understand and appreciate their place in the modern world.

These aspects should foster a comprehensive approach to Technology for Teaching, Learning and Management:

**Technology for Learning:**

- To promote social interaction and collaborative working
- To support inclusive and innovative approaches to learning
- To allow learners access so that they can study at anytime and anywhere, e.g. using a range of devices and/or wireless technology
- To provide access to high quality learning materials
- To provide a safe environment, preventing access to unsuitable material and preventing inappropriate use of systems
- To enable work to be produced, submitted and marked electronically
- To enable learners to track their own progress and set their own goals
- To enable parents to engage with their child's learning.

**Technology for Teaching:**

- ensure that all staff are motivated and skilled in the use of technology
- enable a culture of continuous development of technical skills
- enable teachers to access a wide range of multimedia and digital resources
- enable technology to be used in a wide range of learning spaces in the school and with variety of different group sizes
- enable teachers to create, use and adapt teaching resources created by themselves and others
- support work planning and monitoring, for groups and individuals.

**Technology for Management:**

- be secure and integrated with curriculum and student recording systems
- allow for efficient administrative and financial systems including electronic filing and cashless financial transactions within the school
- allow for integrated personnel, timetabling, cover and associated arrangements
- provide access to achievement and target-setting data for individuals (including data about lesson attendance and behaviour)
- enable the aggregation and analysis of data to provide information about course effectiveness, staff and learner performance
- enable the use of pupil performance data to inform decisions about staff development and deployment
- support communication with parents about students' attendance, behaviour and attainment
- enable secure transfer of data with other schools, local authorities, and children's services
- be accessible to all who need to use it - including school governors.

#### **4. British Values within Computing**

Children at St John's Primary School demonstrate the following values whilst learning about Computing:

### **Democracy**

- Listening to everyone's ideas in order to form a majority.
- Working as part of a team and collaborating to use computing devices effectively.

### **Rule of Law**

- Developing knowledge of lawful computing behaviours.
- Demonstrating respect for computing laws.

### **Individual Liberty**

- Taking responsibility for our own computing behaviours.
- Challenging stereotypes and bias.
- Exercising rights and personal freedoms safely through knowledge of E-safety.

### **Respect and Tolerance**

- Showing respect for other cultures when undertaking research using computing devices.
- Providing opportunities for pupils of all backgrounds to achieve in computing.

## **5 Roles and responsibilities**

### **Role of the Computing Coordinator**

- Highlighting areas for the development of Computing within the School Development Plan and being aware of annual budget available for this.
- Co-coordinating the use of Computing across the curriculum.
- Ensuring the school's Computing resources are maintained and used effectively.
- Reviewing the continuing Professional Development needs of all the staff and providing suitable training opportunities.
- Keeping up to date with developments and new technologies.
- Ensuring that this policy is successfully implemented throughout the school.
- Reviewing and updating this policy periodically.

### **The Class Teacher:**

- Developing the pupil's Computing capability in accordance with school policy.
- Ensuring that each pupil has equality of access to Computing resources.
- Monitoring and evaluating each pupil's experiences.
- Determining the next stage in each pupil's use of Computing capabilities, ensuring continuity.
- Keeping records of pupils' computing achievements and assessing each pupil's attainment.
- Developing their own capability to support their teaching and pupils' learning.

### **Classroom assistants and adults other than teachers:**

- Working with the class teacher to ensure pupils develop their computing capability.
- Developing their own capability to support teaching and learning

## **6 Teaching and Learning**

\* Due to the COVID-19 pandemic and the requirements of the Recovery Curriculum, formal Computing teaching as described within this policy was suspended following Govt. advice.

In most instances, this Policy outlines general pedagogical approach where restrictions and alternative focus is not required. It should be noted though that extensive use was made of computing for Remote Learning, as it was the primary method of delivery.

Teachers are expected to employ a range of strategies and to use their professional judgement to decide on those most appropriate to cater to all learning styles and across all abilities within their class. Such strategies could be:

- using the computer to demonstrate to a group of pupils or the whole class
- leading a group or class discussion about the benefits and limitations of different technologies
- individual or paired work using worksheets and help cards
- collaborative writing and design work in groups;
- co-operative activities in groups.
- individual work

#### **Learning:**

- Learn programming by using programmable toys, program on screen, through animation, develop games (simple and interactive) and to develop simple mobile apps.
- Develop their computational thinking through filming, exploring how computer games work, finding and correcting bugs in programs, creating interactive toys, cracking codes and developing project management skills.
- Develop computing creativity by illustrating an eBook, taking and editing digital images, shooting and editing videos, producing digital music, creating geometrical art and creating video and web copy for mobile phone apps.
- Investigate computer networks through finding images using the Web, researching a topic, finding out how the school network operates, editing and writing code, creating an e-safety micro-site, and planning the creation of mobile apps.
- Communicate and collaborate by producing a talking book, communicating clues, use email, produce wikis, create and write blog pages and design interfaces for apps.
- Understand the need for productivity as a life skill through creating a card electronically, record bug hunt data, create surveys and analyse results, record and analyse weather data, create virtual spaces and research the app market.

Where one pupil is used to demonstrate or teach a skill to others, the teacher must feel confident that this is of benefit to all those involved.

Where pupils work in groups, they should be selected to ensure that all pupils are equally active and involved in the task and that all have equal access to the resources, the 'doing', and the 'thinking'.

Teachers are expected to intervene as appropriate to reinforce an idea, teach a new point, challenge and extend pupils' knowledge and understanding. Pupils should not be left unattended for long periods while using Computing resources.

### **6.1 Discrete Computing**

All classes will have timetabled sessions using the laptop trolley and/or suite, but may choose to use technology to enhance other areas of the curriculum.

## **6.2 Cross-curricular Computing**

Pupils' entitlement to use Computers in their subject learning is vital to extending and enhancing learning in all curriculum areas. Wherever possible, teachers will use Computing across the curriculum in creative and diverse ways to enrich learning and excite pupils (as exemplified through the Rising Stars "Switched on Computing" Schemes of Work now used within St John's School). Evidence of the children's work is kept on their own school network folder.

## **7 Computing curriculum organization – Planning structure**

Long term planning and scheme of work in place, clearly identifying links with other subjects (See the Rising Stars "Switched On Computing" scheme)

Medium-term planning: these outline the unit of work for each term, stating the learning outcomes for the unit and suggest a breakdown of how the unit could be covered to ensure learning is progressive. National curriculum assessment indicators are also included.

Short term planning: Teachers are responsible for planning learning in each lesson, adapting medium term plans to include work related to any cross curricula links that meets the need of their class.

The topics studied in Computing are planned in order to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build planned progression into the scheme of work so that the children are increasingly challenged as they move up through the school.

Alongside the Rising stars scheme, children will have access to the Discovery coding site, "Espresso" where key coding skills can be developed.

### **7.1 Early Years**

The positive and noticeable benefits of young children using Computing are similar to those of the older pupil. Thinking and problem solving skills are developed through a structured focus which is stimulating and linked to other activities. However, Computing in the Early Years should also reflect the use of technology in everyday life and be included in opportunities for role play.

The Computing Co-ordinator will work with the Early Years Foundation Stage Co-ordinator to ensure that resources are appropriate to the needs of the pupils in order to enhance life skills and support the seven areas of the learning.

## **8 Assessment**

The Rising Stars 'Switched on Computing' scheme follows the recommendations of the DfE's National Curriculum Expert Panel and the statutory attainment target in relating all assessment to the content of the programme of study. Each unit includes a number of

assessable outcomes, presented in the format 'all', 'most' and 'some', which are then mapped to corresponding statements from the programme of study.

A single unit could allow pupils to demonstrate learning relating to several bullet points from the programme of study. Note that although specific software is often referenced in these statements for clarity, other relevant software/tools that allow children to accomplish the same goal are perfectly acceptable.

Formative assessment occurs on a lesson-by-lesson basis determined by the aims. A judgement on each pupil's level of attainment is given at the end of each Key Stage, with interim judgements made for reporting to Parents based on in-class performance.

## 9 Inclusion

All pupils, regardless of race, gender, culture or disability shall have the opportunities to develop their Computing capability. The school will promote equal opportunities for laptop usage and fairness of distribution of Computing resources. Children with a computer at home are encouraged to use it for educational benefit and to share their experiences in school.

### 9.1 Provision for Special Educational Needs

Pupils with Special Educational Needs can benefit from using computers as it enhances access to the curriculum, and this in turn encourages motivation and the development of skills.

Computing resources in the school will reflect the needs of all our students and the Computing co-ordinator will work with the SENCO to develop a portfolio of Computing resources to support the needs of specific children in the school.

### 9.2 Online Safety

The Online Safety Policy is reviewed and shared regularly with staff and parents via the school website. Teachers will regularly remind children about online safety issues when using computers and other devices. The "Switched On Computing" Scheme of work regularly revisits online safety issues within each unit of learning. Additionally, each key stage has a specific Online Safety scheme of work which has age appropriate guidance, lessons and resources to teach and inform children of key digital safeguarding elements each term throughout the year.

It should be noted that disclosures and safeguarding procedures specifically related to computing and online safety can be cross referenced with the schools Child Protection and Safeguarding Policy which is updated annually, kept by the Headteacher and can be found online.

**Signed: Mr B Dunne**

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