



St. James' Lanehead Church of England Primary School

# Computing Policy

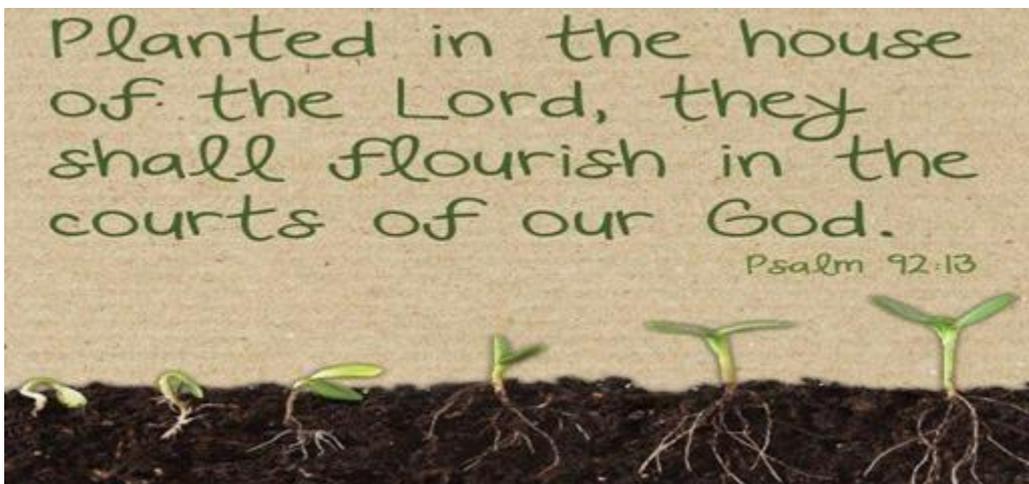
<b>Date of Policy:</b>	<b>November 2023</b>
<b>Person Responsible:</b>	<b>K Rushton</b>
<b>To be reviewed:</b>	<b>Annually</b>
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St James` Lanehead C of E (VA) Primary School

Mission Statement

*Our church school seeks to inspire each individual to flourish, grow and learn with Jesus at the heart of all we do.*



## **St James' Lanehead C of E (VA) Primary School**

### **Computing Curriculum Policy**

#### **Our Vision**

At St. James' Lanehead C of E Primary School, we seek to inspire each individual to flourish, grow and learn. Our curriculum follows the formal requirements of the National Curriculum, but also offers an exciting range of opportunities to enrich the experience. Technology is an integral part of everyday life and we aim to equip our pupils with the knowledge and skills to participate confidently and safely in an increasingly digital world.

#### **Aims**

Our aim is to teach children to grow into responsible role models who can make informed and positive choices online. We believe that technology can provide: enhanced collaborative learning opportunities; better engagement of pupils; easier access to rich content; support understanding of new concepts and can support the needs of all our pupils. Technology plays a vital role in our whole school curriculum; therefore, children are introduced to a range of technology, including laptops, iPads, interactive whiteboards and virtual learning environments, allowing them to continually practise and improve the skills they learn. As well as the benefits of technology, we are also aware of the risks. This is why we aim to prepare our children to stay safe online through continual online safety reminders, updates, teaching units and the annual participation in Safer Internet Day. Children learn how to protect themselves and make decisions in difficult situations through relevant and age-appropriate resources.

We also aim to:

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Support children to achieve their best using strategies to know and remember more.
- Offer access to a variety of high-quality hardware, software and unplugged resources.
- Instill 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.
- Provide opportunities to attend extra-curricular Computing and STEM clubs.
- Offer opportunities to join the Digital Leader programme.

Our mission is to enable children to become active participants in our evolving digital world and prepare them for further education and future careers.

#### **Our Curriculum**

At St. James' Lanehead, Computing is taught through discrete Purple Mash units from Reception to Year 6. The Purple Mash scheme of work supports teachers to deliver fun and engaging lessons which help to raise standards and allow all pupils to achieve their full potential. It provides flexibility and opportunities for cross-curricular links throughout the school year. To help ensure pupils have the

opportunity to develop a wide range of skills, experiences and competencies with technology, the curriculum has been broken down into three key areas:

- Information Technology (e.g. Images, Videos, Animation, Data Handling, Spreadsheets, Databases, Internet Searching)
- Digital Literacy (e.g. Online Safety, Networks)
- Computer Science (e.g. Programming, Coding, Emailing, Blogs, Hardware)

The National Online Safety scheme of work has also been incorporated into our curriculum to ensure Online Safety is central to all learning.

### **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:

- 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.
- Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language.

### **KS1 & KS2 Programme of Study:**

We follow the programme of study set out in the National Curriculum, which states that:

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 are 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 Aims:**

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.

## **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.

## **Key Stage 2**

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.

## **Planning and Assessment**

At St. James' Lanehead, the Computing learning journey for the year is planned following the Purple Mash and National Online Safety schemes of work and takes into consideration the coverage of all knowledge and skills across the school. Teachers record pupil outcomes after each Purple Mash unit to track children's progress and attainment each term. All teachers keep an online folder of children's work using Purple Mash. This class folder and children's individual workbooks must contain work samples from all areas of the Computing curriculum taught for the year group. Within lessons, children are encouraged to self, peer and group assess work in a positive way and teachers give verbal feedback.

The monitoring of Computing, to improve the standards for teaching and learning, takes place through:

- Learning walks to ensure teachers are carrying out the aims of the Computing curriculum and children are making progress;
- Reflective teacher feedback;
- Work scrutiny of children's workbooks and online folders;
- Pupil voice through interviews and discussions;
- Teacher voice through questionnaires, interviews and discussions;
- Learning environment monitoring;
- Analysing data and tracking pupil progress and attainment;

- Supporting colleagues in their CPD;
- Purchasing and organising resources;
- Keeping up to date with recent Computing developments;
- Informing Senior Leaders, Key Stage Leaders and Governors of Computing issues;
- Regular reports are made to the governors on the progress of Computing.

### **Online Safety**

Online Safety has a high-profile at St. James' Lanehead and we follow a separate Online Safety policy which covers the four identified areas of risk: Content, Contact, Conduct and Commerce. Online safety is an integral part of Computing and other curriculum areas such as PSHE lessons, embedded in the day-to-day lives of our pupils. We follow the Purple Mash and National Online Safety schemes of work which are relevant, up-to-date and progressive from Early Years to the end of Year 6.

Children learn through the following units of work:

- Self-Image and Identity
- Online Relationships
- Online Reputation
- Online Bullying
- Managing Online Information
- Health, Wellbeing and Lifestyle
- Privacy and Security
- Copyright and Ownership
- Gaming & Gambling

Staff and governors are trained using the National Online Safety CPD which is relevant and positively impacts upon the children. Through our home-school links and communication channels, parents are kept up to date with relevant online safety matters, policies and agreements. They know who to contact at school if they have concerns and weekly guides are also sent to parents with information about emerging trends and technology. The Online Safety, Acceptable Use and Data policies state how this is monitored further.

### **Health and Safety**

St. James' Lanehead takes all necessary measures to ensure both staff and pupils are aware of the importance of health and safety. Both staff and pupils are trained to handle electrical equipment correctly including how to power off and on. Pupils are reminded about the dangers of electricity and the danger signs to look out for. Adequate displays and warning signs are strategically placed around the school to reinforce health and safety.

### **Conclusion**

This policy broadly outlines the school's approach to ensure that the provision of Computing for pupils at St. James' Lanehead remains in step with technological advances and equips pupils with the appropriate skills to use technology responsibly and appropriately to support their learning. Our school aims to support all families and the wider community. Any queries or concerns regarding individual policies will be considered on an individual basis.