St Anne's C of E (A) Primary School Computing Policy

'Let all that you do be done in Love' 1 Corinthians 16:14

St Anne's strives to '*develop the whole child, spiritually, mentally and physically* by helping pupils to:

Love God

Love learning and

Love themselves and others

in a caring, Christian environment through close links to the Church and community.

Approved by	Head Teacher Signature	Approval date	Review date

This Policy has been drafted by the Computing Coordinator and agreed by staff and governors.

At St Anne's C of E (Aided) Primary School endeavour to deliver high-quality, effective computing curriculum that allows children to explore the significance of digital technology in the current world and see how technology is always adapting. As a school, we teach pupils the skills and knowledge they need to become digitally literate, have a high understanding of information technology and develop their computer science skills. This policy sets out a framework that teaching and non-teaching staff can work from and gives guidance on planning, teaching and assessments.

Computing is an integral part of the National Curriculum and it will have an impact on the children's lives as they grow up due to its prevalence in the modern world. It is vital that they understand key concepts and be able to use digital technologies, systems and software. As the world becomes more digital, more software, technologies and equipment can be used to communicate, collaborate, express and create digital content. Here at St Anne's Primary School, we understand that pupils are entitled to a broad and balanced computing education with a structured, progressive approach to the learning of how computer systems work, programming, creative media and data and information. This provides our pupils with the skills necessary to become digitally literate and participate fully in the modern world. Where possible, we make clear links with mathematics and science to enhance our computing curriculum further as well as creating better links to STEM (Science Technology Engineering Mathematics) education.

Aims

The aim for computing is for pupils to become digitally literate, competent computer scientists and knowledgeable about information technology. These three areas are at the core of the computing curriculum here at St Anne's. E-safety is taught alongside all of these areas as an overarching topic due to its prevalence in today's society. Teachers can access CPD and resources to develop their confidence and competence when teaching computing and to plan cross-curricular links with STEM as well as other subjects such as English.

The National Curriculum for Computing states that 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.

Computing offers children a wide variety of experiences. This can include:

- Developing their ability to apply their digital literacy capability to support their use of language and communication skills;
- Developing their digital literacy capability and understand the importance of information and how to select and prepare it;
- Developing their computational thinking – the ability to solve problems in a creative, logical and collaborative way – is developed through repeated programming opportunities and opportunities to build understanding and apply the concepts of computer science;

- Becoming responsible, competent, confident and creative users of information and communication technology;
- Exploring their attitudes towards Computing, its value for themselves, others and society and their awareness of its advantages, risks and limitations;
- Developing skills involved in computer science, digital literacy and information technology; Grow an awareness of how technology is used in the world around them and of the benefits that it provides;
- Communicating and collaborate in order to develop understanding of the purposes for using technology and these are used to bring together home and school learning experiences;
- Engaging all pupils imaginatively and widen their learning opportunities
- Developing an understanding of how to use technology safely and the risks associated.

Curriculum

Here at St Anne's Primary School, we provide a broad and balanced computing curriculum that takes children's abilities, individual needs and emotional development into consideration. Throughout this curriculum the children are exposed to new concepts, learn a plethora of new skills and gain knowledge across multiple areas. As a school, we follow the NCCE's Teach Computing scheme for work using their cyclical pedagogy to ensure our pupils know more, remember more and are able to do more with their computing knowledge and skills.

EYFS

Children in Early Years have access to a range of technology including laptops, iPads, Chromebooks and Bee-bots. These can be put into continuous provision and be used for planned lessons. Children will have various different experiences with technology, dependent on the purposes in both child-led activities and adult-led activities. The opportunities in Early Years are identified in planning to support their learning and to give them a solid foundation as they progress into Key Stage 1.

Key Stage 1

In Key Stage 1, children will use a range of technology and software in school and learn how to stay safe whilst using this. The children will explore why different technology is used for different reasons and make links with common uses of technology. Pupils will develop their understanding of subject-specific vocabulary related to technology, coding and online safety.

Digital Literacy – Children will begin to learn how to become digitally literate by using the range of technology we have available, how to stay safe and the need to keep information private. They will explore what it means to be safe online, what skills they need and what knowledge they need to keep themselves safe online, such as knowing what do to if they felt concerned about something they have seen or heard online.

Computer Science – Children will learn to develop their computer science skills by learning about algorithms, what they are and how they are implemented using technology. All children will learn the importance of following instructions, step by step, to achieve a required outcome. They will also be able to create and debug simple programmes using technology.

Information Technology – Children will explore a range of technology for different purposes and being able to articulate why a certain technology is used for a specific task. Each child will have opportunity to explore websites safely, create digital media and use technology for data and information. By following this, children will develop their understanding of how technology can be used to find out information. They will have the experience of organising their work and using a variety of programs from Microsoft office to Scratch Programming.

Key Stage 2

In Key Stage 2, children continue to develop their abilities and confidence when using a variety of technology. The children will have multiple opportunities to design, write and debug programmes to achieve a certain goal. Pupils will understand how to keep themselves and others safe online, understanding the importance of private information and the ways to report concerns about content found online. The children will develop their understanding of subject-specific vocabulary taught in Key Stage 1 and learn any new terminology.

Digital literacy – The children will continue to build on their knowledge and skills to become more digitally literate by learning behaviours that are acceptable and unacceptable online and any risks associated with these behaviours. Pupils will explore what the risks could be to them and others online and know that have choices to make when in these situations. Throughout Key Stage 2, the children will have plenty of opportunity to discuss what they have seen on the internet and evaluate its authenticity and accuracy. The children will explore this across other areas of the curriculum to further their understanding such as research in History.

Computer Science – Children will build on their knowledge of algorithms to create their own. They will have opportunity to predict, repeat and experiment with multiple parameters to develop their knowledge of computer science. They will use a variety of software throughout the Key Stage to have broad experience.

Information Technology – The children will continue to use a range of technologies available to them to work on specific purposes. They will collect a range of data and learn the skills needed to organise and present this data using different programs. Throughout the key stage children will also explore animation and learn how to produce films/ animation and edit it.

Computing Curriculum Planning

At St Anne's, computing is based around a structure that covers the key areas of computing development. These key concepts are taught in a structured unit that include:

- **Computing systems and networks:** (systems, networks and how they are used, the internet, hardware and software)
- **Programming:** (interpreting, creating and evaluating algorithms, programming to accomplish specific goals, detecting and correcting errors)
- **Data and information:** (collecting, analysing, evaluating, presenting data and information)
- **Creating media:** (design and development, communicating and collaborating online, evaluating online content, respectful and responsible communication, presenting,

creating content) As part of the work on each key concept, children also explore and learn about: The effective use of tools, the impact of technology and safety and security.

The curriculum is implemented through the use of the NCCE's Teach Computing scheme of work. A subject progression document is integral to the teaching and learning of computing across the whole school, and ensures that children are given the opportunity to build upon prior knowledge. The Teach Computing scheme of work was used to write the subject progression document. Long-term, medium-term and short-term plans provide balance and distribution of work throughout the year. Following the progression document with the Teach Computing scheme will ensure a sequence of lessons where knowledge and skills are learnt, practised and developed. Key vocabulary is displayed and referred to in classrooms.

Assessment and Recording

At St Anne's, assessment is a vital part of the teaching and learning process. Children record their learning digitally on the school server and Google Drive. Each class also has a book/file to record any paper activities or photographic evidence. The assessment of children's work is a constant process to ensure that they progress. Feedback is given in the moment and follows the schools' 'Marking and Feedback Policy'. Progress is assessed on the statements that form the learning objectives and the National Curriculum Statements linked to their unit.

Monitoring

Monitoring is an ongoing process to ensure the curriculum is as effective as it can be. By doing this, changes can be made and support allocated promptly to avoid any issues. The Computing lead will monitor by pupil discussions, samples of work, discussions with teachers and lesson observations. Monitoring also includes regularly auditing provision, staff meetings/training and any future plans based on the needs of the children and staff.

Online Safety

Due to the increasing importance and ever-changing nature of online safety, a separate E-safety policy has been created, detailing filtering and monitoring procedures along with other information about how we support staff, pupils and parents to stay safe online. Using the Teach Computing scheme of work, St Anne's provides a progressive computing curriculum, which also teaches children about saying safe online and this is also supported throughout other subjects as PSHE and when children come into contact with technology in other lessons. Online safety is discussed throughout the year and highlighted during 'Online Safety Day'. Online safety is vital in supporting children and this coincides with the overall safeguarding policy of the school.

Equal Opportunities

All pupils will have the opportunity to develop skills using a variety of technology. St Anne's promotes equal opportunities of technology usage and understands its impact on children's learning regardless of their needs. The class teacher differentiates work by task, resource or support, to

ensure the individual needs of higher attaining and SEN pupils are met. The school is aware that not all pupils have the same access to technology at home and this is considered by staff in the planning and delivery of the curriculum.

Roles and Responsibilities

The Head teacher will:

- Actively support and encourage staff, supporting staff development and provide Inservice training (particularly for the Computing Lead) and acquiring resources.

The Computing Lead will:

- Advise and support staff in planning, teaching and learning of computing;
- Monitor teachers' planning as part of ongoing subject monitoring and evaluation of practice; Use feedback from monitoring to develop an action plan for computing with realistic and developmental targets;
- Audit, identify, purchase and organise all computing resources, ensuring they are readily available and well maintained;
- Document and review the agreed ways of working through a written policy document and knowledge and skills progression
- Compile a portfolio of children's computing work to evidence progression and examples of good practice for staff to refer to;
- Keep up to date on new developments in the use of computing in the curriculum and inform staff
- Promote Computing and technology throughout school and its communities

The Class Teacher will:

- Be responsible for the planning and teaching of computing as set out in this policy; Use NCCE Teach Computing scheme and progression document to inform teaching and learning as well as assess children's understanding;
- Follow the subject's long-term plan and develop termly year group medium term plans and short-term plans;
- Embed the computing knowledge and skills progression document within planning and quality first teaching;
- Create and regularly refer to a key vocabulary display within the class linked to each theme

Resources

St Anne's has a wide range of resources to support the delivery of the Computing curriculum, the Early Years Framework and National Curriculum. Each class has an iPad to record evidence, there is a set of iPads that Classes can share or book out specifically for a lesson. Classes also have a set of laptops and Chromebooks to use for teaching computing and using for all areas of the curriculum. Children in Early Years have additional resources which can be used in school along with other technological toys and equipment, for example, Bee-Bots. Over this academic year, we are enhancing our curriculum resources further through the purchasing of Crumble kits and books linked to topics. Teachers are mindful when setting tasks online and take into account not all pupils may have access to a device at home when they are planning. In addition, we invite visitors into school to run workshops and sessions with children, staff and parents to inform and inspire pupils when possible. The computing action plan feeds into the schools' priorities for equipment and future

expenditure. Any expenditure is reviewed by the head teacher to look at the impact the purchase will have on pupils' learning.

School Website and Social-Media

The school website is located at https://www.st-annes.notts.sch.uk/

The school currently does not have any active social media accounts. This will be reviewed annually to assess its possible impact on publicising. The school uses Google Classroom, Marvellous Me, ScholarPack and Parent Pay which enables the school to keep in touch with the parents via text and email.

Copyright and Licensing

All software used will be in strict accordance with the licence agreement. Jasmine ICT support the school with technical issues as well as ensuring that software on the computers is up to date and in accordance to licences. Personal software should not be loaded onto school computers.