St George's Central CE Primary School and Nursery

Computing Policy

Policy developed by Mr Simmons (Computing leader): January 2021

Policy approved by Governors: February 2021

Chair of Governors

Headteacher

Policy shared with staff and shared on the school website: February 2021

'Never settle for less than your best'

Jesus said, I am the light of the world. Whoever follows Me will not walk in darkness, but will have the light of life.' John 8:12

COMPUTING POLICY

Our school motto

Never settle for less than your best.

Our Vision

Following in the footsteps of Jesus, each member of our community will flourish as resilient, respectful and adaptable individuals prepared for life's journey. Along the way we will encourage and inspire each other to continue growing as beacons of light in our own lives and the wider world.

Our Mission Statement

St. George's Central seeks to provide quality education rooted in the Christian faith, serving the spiritual, moral, and educational needs of the community of which it is part.

Introduction

This document is a statement of aims, principles and strategies for the teaching of Computing at St. George's Central Church of England Primary School and Nursery. Computing is taught in Early Years as an element of Understanding of the World through the EYFS Curriculum. It is the decision of the governors and staff to use the Clive Davies Challenge Curriculum to provide a rich, broad and creative approach to learning. Due to the mixed class arrangement, Computing topics are planned on a 2-year cycle, with each class covering different curriculum areas throughout each half term. This approach provides a context for learning, whilst also covering all objectives of the National Curriculum. Where possible, other lessons link closely with these topics. The implementation of this policy is the responsibility of the Computing leader, governors and all staff.

What is Computing?

A high quality computing curriculum aims to prepare pupils to participate in a rapidly changing world in which work and other activities are increasingly transformed by access to varied and developing technology. We recognise that computing is an important tool in both the society we live in and in the process of teaching and learning. Pupils use different tools to find, explore, analyse, exchange and present information responsibly and creatively. Children will learn how to employ computing to enable rapid access to ideas and experiences from a wide range of sources.

Our vision is for all staff and learners in our school to become confident users of computing so that they can develop the skills, knowledge and understanding which enables them to use the appropriate resources effectively as powerful tools for teaching & learning, for example beebots, ipads, tablets, online learning platforms etc.

Aims

- To enable children to become autonomous, independent users of computing, gaining confidence and enjoyment from their activities
- To develop a whole school approach to computing ensuring continuity and progression in all strands of the computing National Curriculum.
- To use computing as a tool to support teaching, learning and management across all areas of the curriculum.
- To provide children with opportunities to develop their computing capabilities in all areas specified by the curriculum.
- To ensure computing is used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities.
- To maximise the use of computing in developing and maintaining links between other schools, the local community including parents and other agencies.

Curriculum content and skills

In Early Years the children will learn through using different aspects of technology such as I Pads, electronic toys and Desktop computers. Computing learning in Early Years will be delivered in planned sessions and instilled throughout the curriculum, supported by an 'in the moment' planning approach. In Key Stages 1 and 2 Computing is taught weekly with every class allocated time to use the Computing suite, we also endeavour to integrate Computing into all other areas of the curriculum throughout the week as appropriate using different digital devices such as Ipads, kindles and desktops. We follow a question based curriculum with questions being selected to ensure full coverage of the National Curriculum to make sure all three key areas are met. Non-negotiable objectives and skills, taken directly from the National Curriculum are evident on the school's long-term plans which are then used to create medium term plans. Each area of learning has a dedicated knowledge organiser to allow children to absorb key vocabulary throughout the topic.

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

Purple Mash is to be used for the majority of computing topics. Alongside Purple Mash, other programs will be used such as Word, Excel, PowerPoint and Scratch. Adaptations are made to ensure the plan is progressive in developing pupil capability and differentiation will be used to allow all pupils to participate in lessons. Other curriculum areas are taught using other programs at the teacher's discretion.

Skills and processes in Computing

The main skills and processes that we endeavour to teach within computing at St. George's Central are listed below. These are adapted from the National Curriculum and are broken down into three key areas.

- Computer Science
- Information Technology
- Digital Literacy

Skills and Process for Computing in Foundation Stage:

In the Foundation stage, children will experiment with different technologies and devices. They will learn the basics of how to use a computer such as turning it on and off, mouse control and drag and drop tasks. Children will also begin to try and log in using a picture password. Children will also learn about technology outside of school and talk about devices they have in their homes and in other places.

Skills and Process for Computing in Key Stage One:

- 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.

Skills and Process for Computing in Key Stage Two:

- 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.
- Appreciate how [search] results are selected and ranked.

Cross Curricular links

Where possible, other lessons, particularly History, Geography, Science and English, link closely with computing. At St George's Central we allow children many opportunities to use computing to complete different areas of the national curriculum.

Resources

At St George's Central we access the computing curriculum through the use of the computing suite which has 30 computers. We also have I pads, smart TVs, kindles and a media room.

Assessment, recording and reporting

Teachers will regularly assess children's learning as and when children complete particular tasks. Teachers will also use knowledge organiser objectives to assess if the children have met key objectives in a particular topic. Teachers will use their judgement to submit a 'best fit' judgment for each child at the end of each half term. The subject leader will monitor the subject in a variety of ways throughout the year. This will include the scrutiny of digital activities, displays and pupil interviews. **Please see the *'How we assess children's learning in Computing'* document, within the Computing section of our school website for more information.**

Internet Safety

See separate policy

Monitoring and Evaluation

Monitoring activities which we will carry out may include:

- Lesson observations
- Pupil and staff interviews/questionnaires
- Pupil/staff/parent surveys
- Samples of children's work

Evaluation activities which we will carry out may include:

- Teacher and pupil evaluations
- Evidence from lesson observations
- Feedback and evaluation by pupils

The role of the Computing leader

- To write a computing policy in consultation with other members of staff and governors.
- To write an annual action plan showing key areas of development for Computing.
- To advise teachers on the Computing curriculum.
- To ensure the adequate and appropriate provision of resources, and that teachers are aware of how to use the resources available.
- To arrange the purchase of Computing resources within an agreed budget.
- To keep up to date with recent educational thinking about the teaching of Computing and to attend courses and relevant training.

- To advise the Headteacher of strengths and areas for development in the Computing curriculum and resources within the school.
- To monitor the Computing curriculum within school and to have a clear understanding of standards.
- To address any issues relating to pupil progress in consultation with the Headteacher and members of staff.
- To keep a portfolio of evidence.

The role of the Governing Body

The Governing Body is responsible for ensuring that:

- There is a current policy statement and curriculum for the teaching of Computing.
- Computing is included in the basic curriculum.
- Sufficient time and resources are devoted to Computing to enable the school to meet its legal obligations and to deliver a quality Computing curriculum.

The role of the Headteacher

It is the Headteacher's duty to ensure that:

- A Computing education is provided in accordance with the Governors' Agreed Syllabus for all registered children at the school.
- Appropriate staffing and resources are made available to meet the aims and objectives of Computing within the school.

Conclusion

At St. George's Central we believe that it is our professional duty to share this policy with all new members of staff, parents and carers on request. The policy will be reviewed in the light of experiences, new developments or requirements. The leader will discuss any aspect of this policy on request.