



'Underpinned by our Christian values, we create a happy, caring environment. This empowers each and every unique person to dream, believe, achieve and flourish.'

'In the same way, you should be a light for other people.
Live so that they will see the good things you do'

Matthew 5:16 (ICB)

COMPUTING POLICY SEPTEMBER 2023

Reviewed by: S Kitt, September 2023

Date of next review: September 2025

Policy Statement

The subject of Computing, which replaced ICT in 2014, plays an integral part in ensuring that children are prepared for life in an increasingly digital world. Teaching the valuable skills of communication, collaboration, expression and creativity, Computing can be applied both with, and without, the use of technology. There is a focus on 'computational thinking,' which encompasses problem identification and creation of solutions, and this provides strong links with all areas of the curriculum. At St. Peter's, our main priority is to nurture children's development of these skills, regardless of their current exposure to digital media, by teaching Computing in a fun, relative and inspiring way.

'A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world.' NC 2014

Computing at St. Peter's

The National Curriculum Program of Study suggests that Computing can be divided into **three** major areas, all of which should be taught explicitly and throughout the curriculum:

- **Computer science** - How digital systems work and how to put this knowledge to use through programming.
- **Information Technology** – to create programs and a range of content.
- **Digital Literacy**- express themselves and develop ideas through information and communication technology (including a secure knowledge of e-safety)

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 computing tools to find, explore, analyse, exchange and present information responsibly, creatively and with discrimination. They learn how to employ technology to enable rapid access to ideas and experiences from a wide range of sources. Our vision is for all teachers and learners in our school to become confident users of technology so that they can develop the skills, knowledge and understanding, which enable them to use appropriate computing resources effectively as powerful tools for teaching & learning.

Aims

Through our provision, we aim:

- To enable children to become autonomous, independent users of computing technologies, 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 technologies as a tool to support teaching, learning and management across the curriculum.
- To provide children with opportunities to develop their computing capabilities in all areas specified by the Curriculum Programmes of Study.
- To ensure computing technologies are 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 technologies in developing and maintaining links between other schools, the local community including parents and other agencies.

Objectives

To fulfil the above aims it is necessary for us to ensure:

- a continuity of experience throughout the school both within and among year groups,
- the systematic progression through key stages
- that the National Curriculum Programmes of Study and their associated strands, level descriptions and attainment target are given appropriate coverage,
- that all children have access to a range of computing resources,
- that computing experiences are focussed to enhance learning,
- that cross curricular links are exploited where appropriate,
- that children's experiences are monitored and evaluated,

- that resources are used to their full extent,
- that resources and equipment are kept up to date as much as possible,
- that staff skills and knowledge are kept up to date.

Early years (see also early year's policy)

It is important in the foundation stage to give children a broad, play-based experience of technology in a range of contexts, including outdoor play. Computing is not just about computers but rather it is about logic and communication. Early years learning environments should feature technological scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or drive a remote-controlled toy. Outdoor exploration is an important aspect, supported by technological toys such as metal detectors, talk boxes and walkie-talkie sets. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

By the end of 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 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.

By the end of key stage 2 pupils should be taught to:

- 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.

Resources and Access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible technological system by investing in resources that will effectively deliver the strands of the national curriculum and support the use of Computing across the school. Teachers are required to log any faults on the Excel IT Fault Reporting Document as soon as they are noticed.

Network infrastructure and equipment has been sited so that:

- Every classroom from Nursery to Y6 has a laptop connected to the school network and an interactive whiteboard with sound and DVD facilities.
- There are 15 laptops with internet access available to use in every year group learning space.
- There are 35 iPads with internet access available to use in classrooms, stored in a centrally located trolley.
- There are 4 Dot robots, 4 Dash robots, 8 Bee-bots, 1 Blue-bot and a Crumble kit, also stored centrally.

- The equipment is available for use throughout the school day as part of Computing lessons and for cross curricular use.
- Pupils may use equipment independently or in pairs, alongside a TA or in a group with a teacher.

Assessment

Computing is assessed formatively using our school progression document. Formative assessment occurs on a lesson by lesson basis based on the lesson objectives and outcomes. These are conducted informally by the class teacher and are used to inform future planning. We also use summative assessment tasks at the end of a unit of work, these can be found in children's Foundation exercise books. We aim to build on this process by developing and maintaining electronic portfolios of pupils' work, through Students server.

Monitoring and evaluation

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring cycle. This may be through lesson observations, book trawl or looking at other data for the subject. The subject lead is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school. We allocate special time for the vital task of reviewing samples of children's work, for visiting classes to observe teaching in the subject and for pupil voice opportunities.

Pupils with special educational needs (see also SEND policy)

We believe that all children have the right to access Computing. In order to ensure that children with special educational needs achieve to the best of their ability, it may be necessary to adapt the delivery of the computing curriculum for some pupils. We teach Computing to all children, whatever their ability. Computing forms part of the national curriculum to provide a broad and balanced education for all children. Through the teaching of Computing we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Where appropriate Computing can be used to support SEND children on a one to one basis where children receive additional support. Additionally, as part of our dyslexia friendly approach to teaching and learning we will use adapted resources wherever possible such as visual timetables, different coloured backgrounds and screen printouts.

Equal opportunities (see also equal opportunities policy)

St Peter's CE Primary & Nursery School will ensure that all children are provided with the same learning opportunities regardless of social class, gender, culture, race, disability or learning difficulties. As a result, we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to Computing and all staff members follow the equal opportunities policy. Resources for SEND children and gifted & talented will be made available to support and challenge appropriately.

Security

- The designated ICT technician will be responsible for regularly updating anti-virus software.
- Use of computers will be in line with the school's 'acceptable use policy'. All staff and volunteers must read this as part of the induction process.
- Parents will be made aware of the 'acceptable use policy' at school entry and will sign and return an Online Safety Agreement for their child.
- All pupils and parents will be aware of the school rules for responsible use of computers and the internet and will understand the consequence of any misuse.
- The agreed rules for safe and responsible use of Computing and the internet will be displayed in school.

Cross-curricular links

As a staff, we are all aware that Computing fluency should be achieved through application of skills in core and foundation subjects. Where appropriate, Computing should be incorporated into planning for all subjects and ICT and computing skills should be used to support learning in other subjects.