



ST BARTHOLOMEW'S C OF E PRIMARY SCHOOL COMPUTING POLICY

The School Vision

Safeguarding

St Bartholomew's C of E Primary School is committed to safeguarding and promoting the welfare of its pupils. We believe all staff and visitors have an important and unique role to play in the protection of children.

The Nature of Computing

Computing is an integral part of the national curriculum and is a key skill for everyday life. At St Bartholomew's C of E Primary School, we understand that computing is now a vital part of children's lives and that we need to prepare our pupils for an unknown technological future. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with literacy, 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 upon this knowledge and understanding, pupils are then 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.

Aims and Purposes

The aims and objectives of computing at our school mirror those set-out in the national curriculum for computing and are intended 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.

The computing curriculum puts a clearer emphasis on three areas of learning:

- **Computer science** - how computers work and how to write algorithms and solve problems to eventually create a computer program;
- **Information technology** - how data is represented and managed on computers;
- **Digital literacy** - how to understand digital information and interact with it safely and appropriately.

The aim of the curriculum is to build an understanding of how computers work and how they can be used in pupils' lives - both in their future employment and in enabling them to become responsible 21st century global citizens.

Planning

At St Bartholomew's C of E Primary School we follow the rising stars computing scheme from year 1 to 6, which maps out when national curriculum key objectives are to be taught.



Early Years

It is important in the foundation stage to give children a broad, play-based experience of computing in a range of contexts, including outdoor play. Computing is not just about the use of computers. Early years learning environments should feature scenarios based on experience in the real world, such as in role-play. Children gain confidence, control and language skills through opportunities to write or paint on the whiteboard or programme a toy. Electronic devices can support children to develop their communication skills.

Key Stage 1

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.

Key Stage 2

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

The school has a computing trolleys which are used to deliver both specific computing skills and apply computing across the curriculum. All classrooms are fitted with an interactive whiteboard which is used by both teachers and pupils. Some computing resources are stored centrally while others have been distributed to classrooms to ensure regular use.

E-Safety

The school is committed to the effective teaching of e-safety so that children are able to keep themselves safe at all times. All members of staff are aware of the e-safety policy.

Parent/carers, pupils and any other person dealing with children and ICT should be aware of and have signed the school's acceptable use policy (AUP).

Specific aspects of e-safety are taught in a progressive way throughout the school and highlighted in all aspects of the curriculum so that pupils build up awareness and resilience. Incidents or breaches of e-safety are logged and reported to the head teacher.

Assessment

Assessment of children's computing work is ongoing and involves teacher assessment, self-assessment. Children's work is saved to the server for reference throughout the year. The



computing subject leader will monitor the methods used to assess pupils' capability in the computing element of the new national curriculum.

Subject Leadership/ Leaders

Mathematics subject leaders drive subject priorities forward and take a lead in:

- Ensuring progression, continuity and high expectations are maintained across year groups and key stages.
- Monitoring, assessment and record keeping
- Providing support and training

Monitoring and Assessment

In line with the school Management Overview, quality of teaching and learning is monitored through:

- Lesson observations and drop ins
- Work and book scrutiny
- Pupil interviews
- Environment monitoring
- Data analysis

Signed by: _____ / /
Head Teacher

Signed by: _____ / /
Chair of Governors

Review Date: July 2023