Computing at St Bartholomew's CE (VC) Primary School

"Nurture, Grow, Flourish'



With technology being at the forefront of today's ever-changing world, it is important that Computing is embraced and pupils can access a rich, broad, and balanced computing curriculum. Our Computing curriculum has been designed with our school vision and values and our curriculum intent at its heart.

At St Bartholomew's Primary School, we aim to ensure every child can enjoy and succeed in computing, by providing a creative and engaging curriculum which highlights the real-life application of technology in ways relevant to pupils. Our ambitious curriculum is designed to develop resilience, persistence, and confidence in our pupils computing abilities, real life skills than can be transferable to the ever-evolving challenges of life. We believe that mastery in computing is the acquisition of a deep, long-term, secure, and adaptable understanding of the subject. This is demonstrated by how skillfully pupils can apply their learning in computing to new situations in unfamiliar contexts. All pupils are encouraged to believe in their ability to master computing and are empowered to succeed through curiosity, tinkering and perseverance.

Our teaching curriculum is broken up into ten strands:

- Algorithms;
- Computer network;
- Computer systems
- Creating media;
- Data and information;
- Design and development;
- Effective use of tools;
- Impact of technology;
- Programming;
- Safety and Security.

These strands are divided into 4 themes:

- Computing systems and networks;
- Programming;
- Data and Information:
- Creating media.

As our classes are mixed age, we use a rolling programme, where each theme is covered each year. Computing is taught as a stand-alone subject, however, opportunities to use computing skills and knowledge are built across the whole curriculum.

Online Safety

At St Bartholomew's CE (VC) Primary we weave e-safety continuously through our delivery of computing curriculum ensuring that all the strands of e-safety are provided. Additionally, we build it into other curriculum areas and revisit and model safe internet use. Our PSHE curriculum has strands built around supporting the children in keeping themselves safe which includes online safety.

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Early Years Foundation Stage

At St Bartholomew's Primary School, the children will explore, discuss and recognise that a range of technology is used in places such as homes and schools. They will interact and tinker with age-

appropriate computer software and develop their fine motor skills whilst doing so. In their role play areas they can use technology and understand its purpose. In guided practice, they will be able to explore how the keyboard and mouse works. Through computer science they will develop their communication and language skills by learning to follow and give precise, unambiguous instructions. Both through physical movement and drawing shapes. It is a fantastic way for the children to develop their speaking and listening skills with their peers.

Key Stage 1

In Key Stage 1 skills are further developed. Building on from EYFS knowledge of precise instructions they will learn supporting computing vocabulary as well as use pictorial code. They will begin to write their own simple algorithms like getting ready for school and making a sandwich. When designing simple programs children will have a growing



awareness of needing to be precise with their algorithms

so that they can be successfully converted into code. They will begin to evaluate and fix errors, which supports our promotion of a growth mind-set for all children.

Children will continue to identify a variety of examples both in and out of school and understand what is meant by technology. This will lead into discussions about the difference between objects that use modern technology and those that do not. Children will learn about the importance of staying safe online and develop ways of doing this.

The children will study a curriculum which also includes computing systems, data and information handling and creating artwork or media.

Key Stage 2

Building on Key Stage 1 knowledge of computer science and information technology the children will continue to develop their knowledge of the ten strands. Each year, the children will study units of work on each of the four themes. The curriculum is a spiral curriculum, so they will revisit, embed and build upon previous teaching.

Through other subjects across the curriculum they will make informed software choices when presenting information and data. Using technology collaboratively is an important

part of using technology and will support them in their future beyond school. They will begin to share digital content with others and apply skills in Microsoft Word and Powerpoint to create purposeful documents.

Children will have a greater understanding of the internet and how to challenge information presented to them. They will explore and discuss topics like fake news, online identity and staying safe online with deeper questioning.



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Impact

As children progress through St Bartholomew's Primary School they develop a deep knowledge, understanding and appreciation for how they use technology. They have the skills to independently question their reasoning for using technology and how they can use it safely and purposefully. They are able to challenge, question and solve problems presented to them with resilience and perseverance.

Inclusion

We aim for all children to be able to access the Computing curriculum and that we adapt our teaching and the curriculum to meet the needs of our pupils.

We teach Computing to all children, whatever their ability or individual needs. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Computing teaching we provide learning opportunities that enable all pupils to make progress. We strive to meet the needs of pupils with special educational needs, disabilities, English as an additional language and those demonstrating special gifts and talents. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected levels. We use a range of strategies to support pupils. A few of these, particularly relevant to Computing are:

- The use of appropriate vocabulary at varying levels of difficulty during lessons;
- Modified text passages as expected in other curriculum areas;
- Different levels of written or oral questions for pupils investigating photographic or other visual material:
- Careful use of support for pupils with English as an additional language;
- Use of adapted resources and equipment;
- Alternative ways or scaffolded ways of recording;
- Setting common tasks which are open-ended and can have a variety of responses;
- Adaptions to meet the individual needs of pupils that may cause barriers to learning.

Christian Distinctiveness

At St. Bartholomew's C.E. Primary School our values courage, creativity, joy, kindness and respect are promoted and heavily featured in our Computing curriculum. Pupils are living within an increasingly technological world and aim to develop confidence and knowledge in this area and to share their Christian values through different elements of technology. In school we strive to take responsibility for our actions and learning attitudes using technology.

"If we teach today as we taught yesterday, we rob our children of tomorrow" - John Devey