



Benhall St Mary's C of E Primary School

Be the best you can be.

Let your light shine before others; that they may see your good works and glorify your Father who is in heaven' - Matthew 5:16

Computing Policy

2024-2026

Intent

- Computing capability is an essential skill for life and enables learners to participate more readily in a rapidly changing world. Learners who have grown up with technology around them may naturally develop into competent operators. However, that will not give them any awareness of the underlying processes involved and will not help them to understand how best to apply their skills safely and ethically. At our school we therefore have an important role to play in helping children connect with others safely and respectfully; understanding the need to act within the law and with moral integrity.
- Learning about information technology, computing control systems and robots increases children's awareness of many of the operating systems we use to manage our everyday lives and workplaces. Many jobs in the 21st Century now make extensive use of controllable technology including traditional local industries such as agriculture. The inventor of the World Wide Web, Sir Tim Berners-Lee, commented that *'We don't need to teach computing because we need more programmers. Most learners will study music at some point in school but not because there is an international shortage of musicians. Instead, we should teach learners computing because we need more doctors, artists, farmers and civil servants.'*
- Technology can act as a 'force multiplier' unlocking children's access to information and creative tools not available in the past, even in relatively recent times. For example, Using the Internet gives them instant access to ideas and experiences from a wide range of people, communities and cultures. Furthermore, children are now also able to create impressive multimedia products that would have taken many years and millions of pounds to produce only a generation ago.

Aims

Enjoyment and Inclusivity: Computing lessons are designed to be engaging and inclusive, ensuring all children develop confidence and curiosity in technology, regardless of background or ability.

Skill Development: Pupils explore a range of digital tools and platforms, learning practical computing skills that support future learning and everyday life.

Digital Citizenship: Children are taught to use technology safely, respectfully and responsibly, learning about online risks and how to manage them.

Computational Thinking: Lessons foster logical reasoning, pattern recognition, abstraction, and problem-solving to build strong foundations in computer science.

Creativity and Collaboration: Opportunities are provided to design digital content, solve challenges collaboratively, and apply computing knowledge across the curriculum.

Preparation for the Future: Children gain awareness of how computing is embedded in modern life and how it shapes the world, preparing them for further education and employment in a digital age.

Implementation

- Although Computing has recently replaced ICT as the name of this subject in the National Curriculum, 'Digital Literacy' and 'Information Technology' remain important components of this subject. Children need to know how to use a range of technological applications for a variety of purposes.
- Computing, digital literacy and information technology, are often best taught in a rich context. Children should be encouraged to use technology to create works of art using a range of new media and solve problems that are grounded in their own experiences and beyond. Computing has deep links with mathematics, languages, science and design and technology, and provides insights into both natural and artificial systems. There are also many potential benefits through cross-curricular links to other subjects such as statistics in science and mathematics and the use of media in English.

Key Stage 1

In Key Stage 1, pupils are introduced to basic computing concepts including:

- Understanding what algorithms are and how they are implemented as programs.
- Creating and debugging simple programs.
- Using technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Recognising common uses of information technology beyond school.
- Learning how to use technology safely and respectfully, keeping personal information private.
- Lessons are taught using Purple Mash to ensure progression and continuity.

Key Stage 2

In Key Stage 2, pupils build on KS1 learning by:

- Designing, writing and debugging more complex programs using block and text-based languages.
- Understanding computer networks including the internet.
- Using search technologies effectively and learning to evaluate digital content.
- Creating a range of digital products including presentations, animations, and data handling projects.
- Developing greater awareness of digital safety, including cyberbullying and data protection.

- Lessons are taught using Purple Mash to ensure progression and continuity.

Equal Opportunities

All children will be given equal access to computing lessons and resources. We ensure adaptations are in place to support children with SEND or those who require additional help. Wherever possible, differentiated tasks and scaffolded support will allow every pupil to succeed.

We provide additional resources or software as needed to ensure that pupils with physical, visual, or learning difficulties can fully engage with the computing curriculum.

Activities involving external visits or guest-led workshops will be risk-assessed to ensure all pupils can participate safely and fully.

Participation and Enrichment

Children are encouraged to take part in wider computing experiences such as:

- School-wide computing projects or themed weeks (e.g. Internet Safety Day).
- Participation in local or national coding competitions or digital storytelling challenges.

These opportunities help to enrich the curriculum and promote engagement and enjoyment beyond lessons.

Health and Safety

We teach pupils how to use computing equipment safely and responsibly. Key aspects include:

- Encouraging correct posture and eye-level use of screens.
- Supervising access to the internet and monitoring appropriate use of devices.
- Teaching children about online safety and digital well-being as part of their learning.
- Ensuring all hardware and software used is regularly updated and maintained to comply with school ICT safety policies.

Staff are expected to follow safeguarding procedures and model appropriate use of technology at all times.

Benhall Blueprint

Curriculum Design

- Progressive Framework: Learning builds from foundational digital literacy to programming, data, and networks.
- Diverse Applications: Includes word processing, multimedia, coding, data logging, and internet research.
- Holistic Focus: Emphasises technical skills, digital safety, and problem-solving resilience.

Modelling in Computing

- Live Demonstration: Teachers model how to use software and write/debug code step-by-step.
- Ethical Modelling: Show positive online behaviour and responsible technology use.
- Peer Modelling: Encourage pupils to present digital work and explain their processes to peers.
- Recall: Opportunities are built in for revisiting key vocabulary and skills.

Pillars of Progression

- Digital Literacy: Typing, file management, content creation, and research.
- Computer Science: Understanding how systems work and applying programming concepts.
- Information Technology: Using a variety of software and devices for real-world tasks.
- E-Safety: Developing safe, respectful, and informed behaviours online.

Developing Knowledge Types

- Practical Knowledge: Gained through hands-on interaction with digital tools and platforms.
- Declarative Knowledge: Vocabulary and factual knowledge such as parts of a computer or definitions of key terms.
- Procedural Knowledge: Applying skills to complete tasks like designing a game or using a spreadsheet.

Assessment and Feedback

- Wide Range: Observation, digital portfolios, quizzes, and project outcomes are used to assess progress.
- Aligned with Pillars: Assess digital literacy, programming ability, and safety awareness.
- Model Improvement: Teachers provide feedback on both technical accuracy and digital creativity.

Encouraging Lifelong Engagement

- Model Digital Enthusiasm: Teachers share real-life examples of how computing is used in work and life.
- Transferable Skills: Highlight collaboration, logical thinking, resilience, and creativity in projects.

Impact

- We aim for our children to become effective users of technology who can thrive in a technological world. To this end they will:
 - ❖ understand and apply the essential principles and concepts of Computer Science, including logic, algorithms and data representation;
 - ❖ analyse problems in computational terms, and have repeated practical experience of writing computer programs to achieve desired goals including debugging;
 - ❖ evaluate and apply information technology analytically to solve problems;
 - ❖ understand the difference between responsible and irresponsible online behaviour;
 - ❖ know how to be safe online.

Subject Leader

The computing subject leader ensures quality provision by:

- Offering CPD and technical support to staff.
- Monitoring planning and pupil outcomes.
- Maintaining up-to-date resources and overseeing software/hardware usage.
- Ensuring that the curriculum reflects current technological developments and best practices.

Evaluation

This policy will be reviewed every two years.

Reviewed November 2024