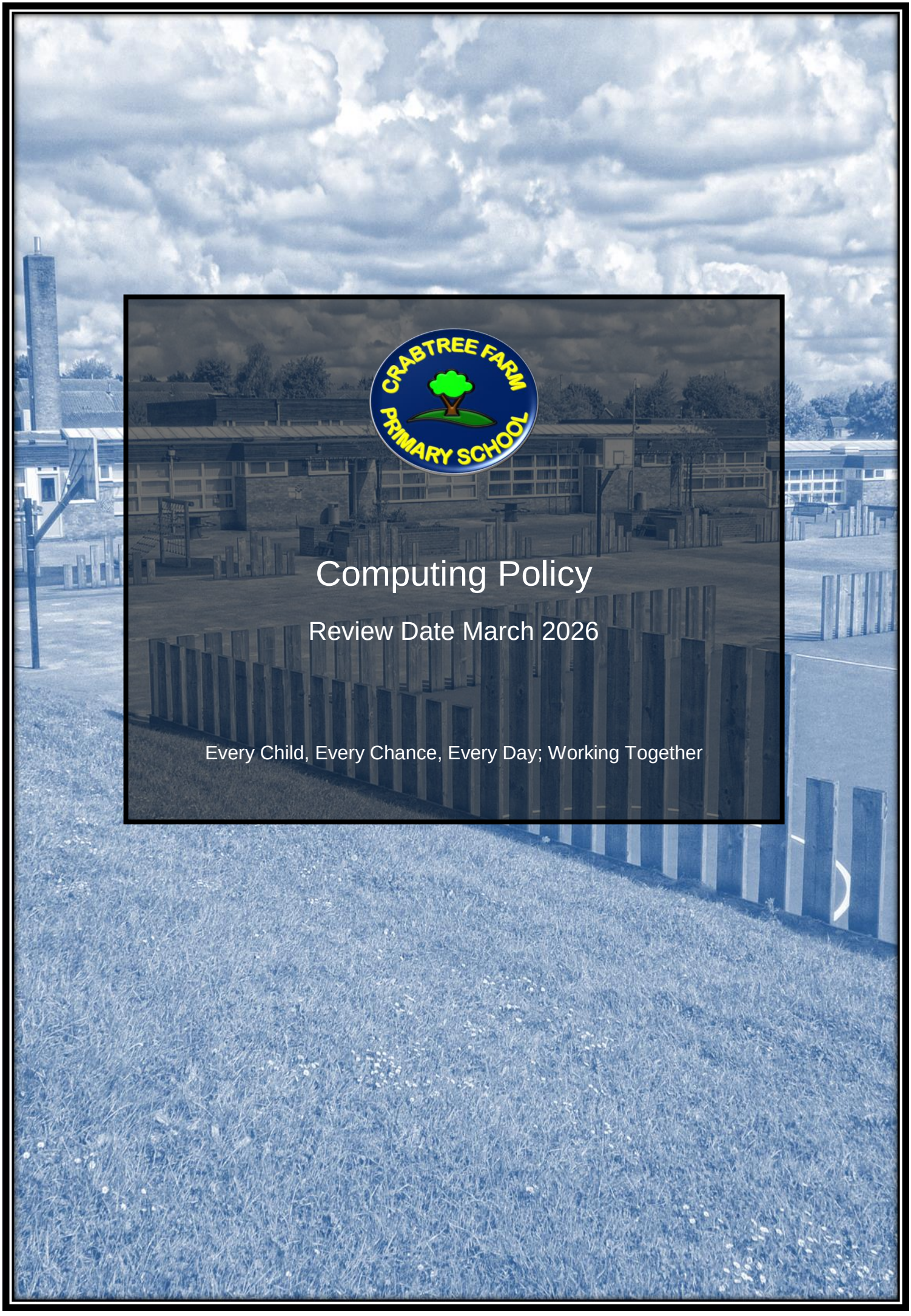

Computing Policy

Review Date March 2026

Every Child, Every Chance, Every Day; Working Together

COMPUTING POLICY

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'A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world.' *Computing programme of Study, DfE, 2013*

As a subject, computing has deep cross-curricular links with mathematics, design and technology and science (STEM), and provides thought-provoking insights into both natural and artificial systems. 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 not just for the future workplace and as active participants in a digital world. It also develops children's computational thinking – their ability to solve problems and consider 'why' things work. At Crabtree Farm, we believe that computing is an integral part of everyday life and we recognise the importance of educating children how to use technology safely.

Intent

By the time children leave our school, we want them to be equipped to use technology positively, responsibly and safely in an ever-changing technological world.

iCompute supports our school in teaching computing inclusively to all children by providing a rich, broad and balanced computing curriculum fully mapped to the National Curriculum. Our teachers integrate technology across all areas of the curriculum in ways which are appropriate for our learners. Our dedicated computing lessons are mapped to develop children's skills in all three strands of the computing curriculum: Computer Science, Information Technology and Digital Literacy (inc. eSafety).

Aims, implementation and our curriculum

Our aim is to develop children's computational thinking and problem solving so that they can succeed in and contribute to our rapidly changing world. To achieve this aim, we will follow the 2014 National Curriculum for computing which aims to ensure that all pupils:

- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication.
- 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.

Our school makes use of iCompute for Primary schools - a whole school scheme of work for EYFS to Year 6 pupils. iCompute fully meets the objectives of the National Curriculum for computing and allows for clear progression in computing.

Our subject lead is supported by iCompute to offer expertise in primary computing education and has appropriate knowledge and skills to design an inclusive and enjoyable computing curriculum. Our children enjoy computing lessons and are taught around six hours of computing per half term (in KS1 and KS2), using a variety of different apps and platforms. Every child can enjoy and succeed in computing when offered appropriate learning opportunities, regardless of technological ability. Our children are taught through whole class interactive teaching, with opportunities to be challenged and inspired. Our lessons are sequenced so that concepts are developed in logical steps with cross-curricular links that can be made to embed and reinforce ideas. Our overview for computing, which identifies when in the year each area is to be covered, supports staff in making cross-curricular links to ensure a cohesive and creative curriculum allowing for maximum impact and teaching opportunities.

Early Years:
It is important in the Early Year Foundation Stage to give children a broad, play-based experience of IT and computing in a range of contexts, including off-computer activities and outdoor play. This will support their development in a technologically diverse world.

While there is no longer a dedicated technology strand, we recognise how computing should be taught to support all of the Early Learning Goals. Alongside the EYFS Lead, the subject lead has mapped opportunities for computing to be taught through direct teaching, child-initiated learning and through discreet opportunities in other curriculum areas. These lessons have been designed to support progress and ensure they meet the requirements set out in the Statutory Framework for EYFS; while ensuring our children experience computing on a regular basis, developing and supporting their computational thinking.

Computing is not just about computers. Our Early Years learning environment features IT scenarios based on experience in the real world, such as in role play. Exploration is an important aspect and using digital recording devices such as video recorders, cameras and microphones can support children in developing communication skills. Teachers plan activities based around computational thinking concepts and approaches. These help teach necessary problem solving skills that are valuable in everyday life. Children gain confidence, control and language skills through opportunities such as ‘programming’ each other using directional language to find toys/objects, creating artwork using digital drawing tools, controlling programmable toys and listening to a broad selection of stories, non-fiction, rhymes and poems that include technological themes. Alongside this, throughout the year children in F2 complete projects on Augmented Realty, Bee-Bots and Stop-Motion animation – details of which can be found in the curriculum overview.

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 consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of IT, computer science and digital literacy across the school. Teachers are required to inform the computing subject leader/IT technician of any faults as soon as they are noticed. Resources (if not classroom based) are located in the computer suite and are audited regularly. A service level agreement with Schools IT and Wolvern IT is currently in place to help support the subject leader to fulfil this role, both in hardware and software. Computing network infrastructure and equipment has been sited so that:

- Every classroom has a computer connected to the school network and an interactive whiteboard with sound as well as a webcam and DVD/video facilities.
- There is a computing suite with 33 desktops and headphones.

- There are 80 iPads for the children to use across school. All children have access to headphones.
- Internet access is available in all classrooms.
- Each teacher is provided with planning to ensure it is taught in line with our policy. This may be taught as a block of lessons but is equivalent to 1 hour per week. This incorporates all three strands of the computing curriculum: Computer Science, Information Technology and Digital Literacy (inc. eSafety).
- Each class has access to a sign-up sheet to ensure they can use iPads/computers as regularly as they would like. Other teaching groups in school also have access to these resources to ensure skills are developed for children who may need additional support to achieve positive outcomes (e.g. SEN groups and interventions).
- EYFS have a bank of three desktops and three fixed iPads in F2 and five fixed iPads in F1. A further six iPads are available for small group work and interventions.
- The school has a computing technician who is scheduled to be in school each Wednesday morning.

Planning

iCompute provides planning to meet the range of needs in any class including those children who may need extra support, those who are in line with average expectations and those working above average expectations for children of their age, those with Special Educational Needs, those with EAL and those with a disability. A wide range of styles are employed to ensure all children are sufficiently challenged:

- Children may be required to work individually, in pairs or in small groups according to the nature or activity of the task.
- Different pace of working.
- Different groupings of children - groupings may be based on ability either same ability or mixed ability to provide peer support.
- Different levels of input and support.
- Different outcomes expected.
- Setting common tasks which are open-ended and can have a variety of responses.

Impact

The way our children showcase, share, celebrate and publish their work will best show the impact of our curriculum.

We will measure the impact of our curriculum through the following methods:

- Practical evidence – taking photographs or screenshots of lessons and/or projects
- Evidence saved on the ‘student share’ (running programmes etc)
- Children’s written work
- Monitoring planning and objective coverage

- Lesson observations and drop ins
- Interviewing the pupils about their learning (pupil voice) across KS1 and KS2
- Learning walks across EYFS
- Children's understanding of how to be safe online
- Use of skills ladders to monitor progression
- Interviews with staff
- Children's computational thinking skills

Assessment and record keeping

Teachers regularly assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess computing each term.

Assessment should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. As assessment is part of the learning process, it is essential that pupils are closely involved.

Internet Safety and e-safety

Internet access is planned to enrich and extend learning activities. The school has acknowledged the need to ensure that all pupils are responsible and safe users of the internet and other communication technologies.

Although the school offers a safe online environment through filtered internet access, we recognise the importance of teaching our children about online safety and their responsibilities when using communication technology. We have regular age appropriate e-safety assemblies which address current topics and support children to keep safe when using technology both in and out of school.

Our separate e-safety policy recognises the commitment of our school to e-safety and acknowledges its part in the school's overall safeguarding policies and procedures. It shows our commitment to meeting the requirement to keep pupils safe when using technology.

Roles & responsibilities

Senior Leadership

The overall responsibility for the use of IT rests with the senior leadership of a school. The headteacher, in consultation with staff:

- determines the ways IT should support, enrich and extend the curriculum;
- decides the provision and consults on the allocation of resources;
- decides ways in which developments can be assessed, and records maintained;

- ensures that IT is used in a way to achieve the aims and objectives of the school;
- ensures that there is a Computing Policy, and identifies a Computing Subject Leader.

The role of the subject leader
There is a computing subject leader who is responsible for the implementation of the computing policy across the school. Their role is to:

- offer help and support to all members of staff in their teaching, planning and assessment of computing.
- provide colleagues opportunities to observe good practice in the teaching of computing.
- maintain resources and advise staff on the use of digital tools, technologies and resources.
- monitor classroom teaching or planning following the schools monitoring programme.
- monitor the children's progression in computing, looking at examples of work of different abilities.
- manage the computing budget.
- keep up-to-date with new technological developments and communicate information and developments with colleagues.
- lead staff training on new initiatives where appropriate.
- attend appropriate in-service training.
- attend network meetings within the NST.
- have enthusiasm for computing and encourage staff to share this enthusiasm.
- keep parents/carers and governors informed on the implementation of computing in the school.
- liaise with all members of staff on how to reach and improve on agreed targets.
- help staff to use assessment to inform future planning.
- writes the computing and e-safety policy.

The role of other subject leaders
There is a clear distinction between teaching and learning in computing and teaching and learning with IT. Subject leaders should identify where IT should be used in their subject schemes of work. This might involve the use of short dedicated programs that support specific learning objectives or involve children using a specific application which they have been taught how to use as part of their IT study and are applying those skills within the context of another curriculum subject.
Subject leaders work in partnership with the computing subject leader to ensure all National Curriculum statutory requirements are being met with regard to the use of computing and IT within curriculum subjects.

The role of the class teacher
Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning computing and using their knowledge, skills and understanding of computing across the curriculum.

They will plan and deliver the requirements of the National Curriculum for computing to the best of their ability. We set high expectations for our pupils and provide opportunities for all to achieve, including girls and boys, pupils with educational special needs, pupils with disabilities, pupils from all social and cultural backgrounds, and those from diverse linguistic backgrounds.

The class teacher's role is vital in the development of computing throughout the school and will ensure continued progression in learning and understanding, and create effective learning environments.
The class teacher will also:

- secure pupil motivation and engagement.
- provide equality of opportunity using a range of teaching approaches and techniques.
- ensure they are familiar with any software they are using and speak to the subject lead or IT technician within a timely manner if they require support
- use appropriate assessment techniques and approaches.
- adapt learning in a suitable way so that all children have an appropriate level of challenge.
- set suitable targets for learning.

Staff training

The computing subject leader will assess and address staff training needs as part of the whole school annual development plan process or in response to individual needs and requests throughout the year. The subject lead sends regular CPD to staff to support their professional development, as well as being approachable for support throughout the ongoing year.

Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the subject leader. This can be done through online CPD videos as part of the iCompute scheme.

Teachers will be encouraged to use IT and computing to produce plans, reports, communications and teaching resources.

Cross curricular links

As a staff we are all aware that computing skills should be developed through core and foundation subjects. Where appropriate, technology should be incorporated into schemes of work for all subjects. Technology should be used to support learning in other subjects as well as developing computing knowledge, skills and understanding. Our school provides pupils with opportunities to enrich and deepen learning using cross-curricular approaches.

English
Computing is integral to the teaching and learning of communication, language and literacy skills. For example, in speaking and listening, the use of digital and visual media enhances communication both face-to face and remotely. Children develop sequencing by ordering parts of stories. Writing can be explored using different media including webpages, blogging and multimodal formats that combine text and images, video or sound clips. Children use Reading Eggs and Spelling Frame in their English lessons to support their learning.

Mathematics
Many computational thinking activities will enhance the mathematical skills of the children. We teach children to take a complex problem and break it down into smaller problem. Our children enjoy applying logical reasoning, step-by-step approaches (algorithms), decomposition, abstraction and generalisation to solving problems and understanding systems. Children collect data, stop patterns, make predictions, analyse results, and present information graphically. Children use TT Rockstars, Hit the Button and Mathletics in their maths lessons to support their learning.

PSHE and citizenship
Computing contributes to the teaching of PSHE and citizenship as children learn to work together in a collaborative manner to problem solve and reason. They develop a sense of global citizenship by using the internet and e-mail to understand how we are all connected. They discuss moral issues relating to having an online presence and discuss the relevance and reliability of what they post and read online.

Geography
Geography provides a meaningful context to practise and apply computing skills. Websites, such as Google Earth or Digimaps, allow children to experience online mapping. This can help them better understand a locality they are investigating or reflect on what they have learned after an off-site visit. Children have opportunities to take virtual fieldtrips. They also complete fieldwork as part of their computing lessons, following instructions to locate objects, scanning them on their devices and mapping out where they were found.

Science
Children use and apply mathematics in a variety of ways when solving problems using IT. EYFS children use photograph software to identify mini beasts as part of their topic. Across school, children collect data, stop patterns, make predictions, analyse results, and present information graphically. Many computational thinking skills overlap with our working scientifically skills.

PE
In EYFS, children follow systematic instructions to complete different activities. Across KS1, children use algorithms to find and identify objects as part of assault courses. In KS2, children use basketballs to mimic the transfer of data, allowing them to understand the concept.

Design and Technology
CAD (computer aided design) and robotics are key parts of the design and technology curriculum. Across school, children are taught in a wide range of contexts, from textile design to electrical systems.

Performing Arts
In art and music, we ask pupils to think about what they are going to create and how they will be working through the steps necessary for this, by breaking down a complex process into a number of planned phases. Throughout the whole school, children use photography and stop-motion to further their development of performing arts.

RE
Children use technology to become more digitally literate when researching different faiths (though close monitoring). Children can search for a locality online and see a variety of religions celebrated in that area via the online census.

Home school links

Parents/carers are encouraged to support the implementation of IT and computing where possible by encouraging use of IT and computing skills at home for pleasure, through home-learning tasks and use of the school website. Parents/carers will be made aware of issues surrounding e-safety and encouraged to promote this at home. This includes asking school for support with any e-safety issues that might arise at home. All staff have access to a bank of age-differentiated e-safety leaflets, which can be printed for parents/carers to support them.

Children are given the option to complete some homework tasks, when appropriate, using IT out of school. Parents/carers are politely asked to inform school if their child does not have access to the internet so that appropriate support can be offered. Teachers are sensitive to the fact that children may not have access to IT or may not wish to use it to complete tasks out of school. Any work brought into school must be scanned for viruses.

We have a school website and a school Arbor app which will promote the school's achievements as well as providing information and communication between the school, parents/carers and the local community.

Health and safety

We will operate all ICT equipment in compliance with Health & Safety requirements. Children will also be made aware of the correct way to sit when using the computer and the need to take regular breaks if they are to spend any length of time on computers. Computer Room Rules are also on display within the computing suite for reference.

The school has an alarm system installed throughout. Each computer system has individual security against access to the management system. EMBC manages the

intranet using ‘Surf Control’ for security and safety. The files and network system are backed up regularly. The virus checker is updated regularly.

Security

We take security very seriously. As such:

- the computing technician will be responsible for regularly updating anti-virus software.
- use of IT and computing will be in line with the school’s ‘acceptable use policy’. The schools ‘acceptable use policy’ is shared with all staff, volunteers and children. Staff sign this annually, and it is included in all new staff and volunteer’s induction.
- Parents/carers will be made aware of the ‘acceptable use policy’ at school entry.
- all pupils and parents/carers will be made aware of the school rules for responsible use of IT and computing and the internet, and the consequence of any misuse.
- the agreed rules for safe and responsible use of IT and computing and the internet will be displayed in all computing areas (referred to as E-Safety Rules).

Appropriate legislation, including copyright and data protection

All software loaded on school computer systems must have been agreed with the designated person in the school.

All our software is used in strict accordance with the licence agreement.
We don’t allow personal software to be loaded onto school computers.

Computing Policy to be read in conjunction with the E-Safety Policy.

Miss Martyn
Computing Subject Leader
Policy written in March 2025, to be reviewed in March 2026

We have in place a group of policies that complement each other to safeguard, protect and promote the welfare of our children. These policies are:

- Behaviour Policy
- E-Safety Policy
- SEND Policy
- Safeguarding Policy
- UK GDPR Policies, including Acceptable Use Policy and Remote Access Mobile Computing Policy
- Whole School Code of Conduct