



Faith, Family and Fascination

Computing Policy

Boutcher C.E. Primary School

Reviewed by: Ed Avis

Last reviewed during: Spring 2024

Next review due by: Spring 2026

**"Love one another. As I have loved you, so you must love one another."
*John 13:34***

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Mission Statement

The Computing Policy will support the delivery of the Mission Statement. Computing takes place within the context of the Christian aims and ethos of Boutcher School as reflected by our Mission Statement.

“The aims and practice of Boutcher School seek to reflect the life and teachings of Jesus Christ as told in the Gospels. Jesus taught us, through His example of unconditional love and compassion, that we are all of equal value to God. Everyone is entitled to be regarded with dignity, fairness and respect. We strive to ensure that our school enshrines the values which Jesus taught us.”

The children at Boutcher discussed our Mission Statement and created their own interpretation of it.

“In our school everyone has the right to learn, the right to feel safe and the right to respect. They have the right to learn the good news of the Gospels and to know that God loves us all equally (whether we are rich or poor, young or old.)

We strive to live in the way that Jesus would want us to. We tell others Jesus's stories so that they can learn from them too and we try to set an example for other people in the way that we act. In all that we do we help each other and love others as Jesus would want us to.

Boutcher CE Primary School tries its best to remember that Jesus loves us, even when we make mistakes.”

SMSC Statement

Through the teaching of Computing children’s SMSC is promoted and supported. We aim to prepare our children to maximise opportunities, develop their responsibility and enhance their experiences now and in the future.

Through lessons we promote our Boutcher values of Faith, Family and Fascination. We enable every child to develop and flourish in a loving and open environment in lessons. We actively promote the fundamental British Values as stated by the Government and design opportunities in the curriculum to do this. We want Computing to be an enjoyable subject where children are fascinated by the learning of themselves, others and the world around them. At the heart of our school, is a rich and diverse culture and community that we enjoy and celebrate. We seek opportunities to work with the local community, explore our local area, welcome visitors to the school, go on trips and take part in community events and projects.

For further information, see the SMSC Policy.

Equal Opportunities and Inclusion

In Computing we are committed to promoting and providing all children with high expectations and an equal entitlement and opportunities regardless of race, gender, culture, class, SEN or disability. We aim to meet the needs of all our children by personalising our Computing curriculum, promoting inclusivity to fully engage and motivate all children. This involves providing opportunities for SEND children to receive support and/or scaffolding as well as challenging all children to take an active part in their learning and to achieve their potential.

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Aims and Objectives

At Boutcher we understand that our children are of the digital age; constantly exposed to new and exciting technology. We want all children to leave Primary Education as confident and creative users of computing equipment and programmes who keep themselves safe in the digital world. We believe all children should be ready, able and excited by the prospect of working with new technology in the future.

National Curriculum Aims

The National Curriculum for Computing aims to ensure that all children:

- 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

Boutcher Aims

At Boutcher C.E. Primary School, we aim to:

- provide a relevant, challenging and enjoyable curriculum for ICT and Computing for all pupils
- develop pupil's computational thinking skills to benefit them throughout their lives
- meet the requirements of the National Curriculum Programmes of Study for Computing at Key Stage 1 and Key Stage 2
- use computing where possible as a tool to enhance learning in the curriculum
- respond to new developments in technology
- develop a good understanding of how to use computers and digital tools safely and responsibly

Rationale

The school believes that IT, computer science and digital literacy:

- are essential life skills necessary to fully participate in the modern digital world.
- allow children to become creators of digital content rather than simply consumers of it
- provide access to a rich and varied source of information and content
- communicate and present information in new ways, which help pupils understand, access and use it more readily
- can motivate and enthuse pupils
- offer opportunities for communication and collaboration through group working
- have the flexibility to meet the individual needs and abilities of each pupil

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Organisation, Planning and Delivery

Early Years Foundation Stage

At the Early Years Foundation Stage (for Boutcher C.E. Primary School, the Reception class), the Early Learning Goals framework is used as the basis for planning opportunities for Computing.

It is important in the foundation stage to give children a broad, play-based experience of ICT in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature ICT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to explore using non computer-based resources such as controllable Beebots and Bigtrak vehicles. Recording devices such as talking postcards can support children to develop their communication skills. This is particularly useful in supporting children who have English as an additional language.

Computing will be taught in a variety of ways in the Foundation Stage through different areas of the Early Years Foundation Stage curriculum. Computing will be used to help with and alongside Mathematics, Creative Development, Physical Development and Communication, Language and Literacy.

In **Key Stage 1** and **Key Stage 2** children will be taught to:

	Key Stage 1	Key Stage 2
Computer Science (How computers work and how to write algorithms, solve problems and write computer programs)	<ul style="list-style-type: none"> understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs use logical reasoning to predict the behaviour of simple programs 	<ul style="list-style-type: none"> design, write and debug 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 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
	Key Stage 1	Key Stage 2
Information Technology (How computers work and how to write algorithms, solve problems and write computer programs.)	<ul style="list-style-type: none"> use technology purposefully to create, organise, store, manipulate and retrieve digital content 	<ul style="list-style-type: none"> 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

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		<ul style="list-style-type: none"> • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
<p>Digital Literacy (How to understand digital information and interact with it safely and appropriately.)</p>	<ul style="list-style-type: none"> • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. 	<ul style="list-style-type: none"> • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Organisation and Delivery

Computing is taught across the school as a discrete subject. There are sometimes opportunities to apply these skills in other lessons, particularly Mathematics, Science, English and the Foundation Subjects.

Schemes of work

The first Autumn term unit of work in all year groups must be based on E-Safety and Digital Literacy. We use the Twinkl E-Safety Curriculum Materials to support this. In the Spring Term every class participates in Safer Internet Day, run by the Safer Internet Centre.

We use the *Code.org* courses to deliver the curriculum.

In EYFS and Key Stage 1, children become familiar with the basics of switching equipment on and off; logging on and off, and selecting specific programs to open, before progressing to the *Code.org Courses*.

Computing work is saved on the school network, on Google Classroom or within the *Code.org* site as appropriate.

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Resources

There are a wide range of programmes and computing equipment available to all pupils throughout the school, namely: laptops, Chromebooks, iPads, iPods, Beebots and Bigtrak vehicles, LegoWedo, dataloggers and other programmable hardware.

The school has links with a number of outside agencies and specialist teachers to promote and enhance the delivery of the computing curriculum, including:

- Code.org
- Rising Stars Computing Curriculum: Switched on Computing
- Safer Internet Centre

Technical support is provided by Classroom365. On-site support consists of two ½ days a week.

Feedback

Feedback is key to producing independent learners in Computing and helps to raise attainment by celebrating the successful aspects of a child's work and also reminding them of the next step. It aims to challenge the children, make them question and to give them the skills needed to refine or correct their work.

Progress and Assessment

Formative Assessment

Children's understanding, knowledge and skills are assessed through observation, discussion, questioning and group participation. Children will be encouraged to talk about and reflect on their own experiences and opinions, especially with a view to e-safety.

Teachers will where appropriate address the learning and build on knowledge, concepts and misconceptions from the lesson taught. Feedback will be given at the start of the next lesson and children can respond to any errors that need following up.

Summative Assessment

Teachers assess children's work in Computing by making informal judgements as they observe them during lessons. At the end of a unit of work s/he makes a summary judgement about the work of each pupil in relation to the National Curriculum objectives and records these attainment grades as Below Year Group Expectations, Working Towards, Expected, or Greater Depth.

Monitoring by the Governors

The governors take part in learning walks each year – sometimes these will have a computing focus. They visit each class and observe computing learning across the school. The coordinator will meet with the governing body to discuss these observations and go through the standard and teaching of computing across the school.

Cross-curricular Skills and Link

The internet and computing are so inextricably linked to so many aspects of our lives now that it is inevitable that there will be opportunities to make cross-curricular links. Children will be made aware of the role of algorithms within the software they use so that they are aware of the innovation and implicit dangers they present. Whenever research is conducted for any subject, children should be reminded of how to do so safely and how to look at what they have found critically. Perhaps the area

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that present the clearest link to computing as a discrete subject will be art – as children have the opportunity to use their coding knowledge to creative ends. Where possible, these should be linked to artistic learning that has taken place in school.

Role and Responsibility of Coordinator

The computing coordinator is actively involved in planning and monitoring the subject. They run planning meetings, staff INSET where required and distribute new ideas and resources among the teaching staff. The coordinator monitors the standard of computing work across the school through looking at class progress on Code.org and PSHE books, where E-Safety work is kept, and meetings with the governors after learning walks.

The coordinator is responsible for ensuring there are adequate resources to support teachers in the delivery of lessons. They will also ensure that educational activities are arranged for classes to support topics being taught and for whole school events, such as Safer Internet Day.

Plan for Unforeseen School Closure

Should there be an entire school closure we will continue to teach children in accordance with the Computing curriculum overview. We will continue to plan a variety of activities and provide children with opportunities to continue with their learning at home with lessons being tailored and adapted to suit home learning.

We will use online platforms to teach and deliver homework. Please see the Remote Learning Policy for more information.

Promoting Diversity in Computing

At Boutcher, we have always been committed to providing all children with an equal entitlement to activities and opportunities regardless of race, gender, culture or class.

We want all children to feel they are positively represented and have opportunities to find out and explore the lives of significant individuals that have made an impact in the world we live in. For BAME children, this may be learning about prominent figures and their influence from people from a range of countries and places. We want children to see themselves as the future and be equipped with the necessary skills and knowledge from the wider world. If children have the self-belief and determination, they will achieve greatness.

In terms of Computing, we want all children to feel valued and positively represented.

In Computing lessons children are regularly reminded that we respect all people, beliefs and cultures and that disrespect and derogatory views are not tolerated. If children share views that cause concern, these should be written on the appropriate forms and handed to the Headteacher. If teacher's feel uncomfortable in discussions or when planning lessons, they should speak to the Computing coordinator for support.

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Management of ICT

Backing Up Data

Backups of all school data is carried out weekly by our ICT technician through Classroom365. A remote backup of the data on the server and the data on the office server is taken off site each night. There is a rotation of tapes. This enables us to recover all of our data in the event of computers being stolen, damages or having an error beyond immediate repair.

Care of Equipment

The individual in whose care it is trusted should maintain all ICT equipment in a clean and serviceable state.

- Any technical fault should be reported immediately to the Computing Coordinator and through the shortcut on the School Desktop to Classroom365 by filling in the form and registering a ticket.

Software

Under no circumstances are any staff allowed to bring software into school to use. A site licence is needed before any software can be used on our computers. These are in place for all items of software the school has purchased.

The ICT and Computing technician is responsible for regularly updating anti-virus software.

Use of Internet

All staff will follow the guidelines in the E-Safety Policy.

Use of ICT, Computing and the Internet will be in line with the school's Acceptable Use Policy. All staff, volunteers and children must sign a copy of the school's AUP.

All pupils will be aware of the school rules for responsible use on login to the network and will understand the consequences of any misuse.

Data Protection

All staff will ensure all data is stored in appropriate files/areas on the server so that it is accessible only to those who have access rights.