Subject Policy for Computing

Subject Lead	Andrew Robinson
Policy Reviewed	April 2026
Next review	February 2028
Shared with Governors	May 2026
Signature of Chair of Governors	**Signature of Headteacher**

Overview of Updates		
Date	**Amendment**	**Staff**
April 2026	New Policy	A.Robinson

Mission Statement

At Stubbins Primary School, we exist to ignite a love of learning and a passion for discovery in every child. In our nurturing and inclusive environment, we help children grow their talents, explore their passions, and develop the confidence to achieve their full potential. Guided by strong values, we empower learners to be compassionate, curious, and courageous—ready to flourish in an ever-changing world.

NURTURE-GROW-FLOURISH

Early Years Foundation Stage (EYFS)

The Early Years Foundation Stage (EYFS) focuses on developing a child's understanding of the world around them, with computing forming part of the *Understanding the World* area of learning. The emphasis is on exploration, curiosity, and developing early technological skills through play and interaction.

At Stubbins Primary School, early computing skills are supported through the use of the **Barefoot Computing** programme, which provides age-appropriate activities that develop early computational thinking, problem-solving, and logical reasoning through both unplugged and practical experiences.

Pupils should be taught about:

People and Communities:
- Begin to understand how technology is used in everyday life.
- Talk about the role of technology in their homes and community.

The World:
- Explore how technology can be used to find out about the world.
- Recognise that technology can be used for different purposes.

Technology:
- Recognise and use a range of technology safely.
- Use simple programs and devices to support learning.
- Understand that technology can be used to create, organise, store and retrieve digital content.

Key Concepts in EYFS Computing:

Exploration and Curiosity:
- Children explore a range of digital devices and begin to understand how they work.

Using Technology:
- Children use simple programs and tools to create and interact with digital content.

Online Safety:
- Children begin to understand how to use technology safely and responsibly.

Computational Thinking:
- Children begin to recognise patterns, follow instructions, and solve simple problems.

National Curriculum

The National Curriculum for Computing outlines the expectations for Key Stage 1 (KS1) and Key Stage 2 (KS2).

Pupils in KS1 should be taught to:

Computer Science:

- Understand what algorithms are and how they are implemented as programs on digital devices.
- Create and debug simple programs.
- Use logical reasoning to predict the behaviour of simple programs.

Information Technology:

- Use technology purposefully to create, organise, store and retrieve digital content.

Digital Literacy:

- Use technology safely and respectfully.
- Recognise common uses of information technology beyond school.
- Know where to go for help and support when they have concerns about content or contact online.

Pupils in KS2 should be taught to:

Computer Science:

- Design, write and debug programs that accomplish specific goals.
- Use sequence, selection, and repetition in programs.
- Work with variables and different forms of input and output.
- Understand computer networks including the internet and how they provide multiple services.

Information Technology:

- Use a range of software to create, organise, and present data and information.

Digital Literacy:

- Use technology safely, respectfully and responsibly.
- Recognise acceptable and unacceptable behaviour.
- Identify a range of ways to report concerns about content and contact.

These objectives guide teaching by ensuring a broad and balanced computing education across Key Stage 1 and Key Stage 2, moving from simple use of technology to more complex programming and digital literacy skills. This progression enables pupils to develop their understanding of how digital systems work, how to create and debug programs, and how to use technology safely and responsibly in the modern world.

Purpose

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with 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 on this knowledge and understanding, pupils are 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, express themselves, and develop their ideas through information and communication technology safely and responsibly.

Aims

This policy aims to:

- Support the delivery of a high-quality computing education, ensuring continuity and progression in knowledge and skills from Early Years to Key Stage 2.
- Develop pupils' understanding of key computing concepts, including computer science, information technology, and digital literacy.
- Enable pupils to understand and apply the fundamental principles of computer science, including logic, algorithms, and programming.
- Develop pupils' ability to use technology purposefully to create, organise, store, manipulate, and present digital content.
- Ensure pupils use technology safely, respectfully, and responsibly, understanding how to keep themselves safe online.
- Develop pupils' confidence and competence in using a range of digital devices and software.
- Encourage problem-solving, logical thinking, and creativity through computing activities.
- Promote independence and resilience when working with technology and solving problems.
- Provide opportunities for pupils to understand how computing is used in everyday life and its impact on the wider world.
- Promote inclusivity by ensuring all pupils can access and succeed in computing.
- Develop pupils' cultural capital through exposure to a range of technologies and real-world applications.
- Prepare pupils for the next stage of their education by equipping them with the knowledge, skills, and confidence to use technology effectively.

Intent

At Stubbins Primary School, our computing curriculum is designed to inspire curiosity and interest in technology, helping pupils develop a coherent understanding of computing concepts and how they apply to the world around them. Our curriculum aligns with all of our core values but in particular of respect, resilience, integrity and curiosity. Through computing, pupils develop respect when using technology, resilience when solving problems, and curiosity about how digital systems work.

We believe that computing is an essential part of modern life and plays a key role in preparing children for the future. The computing curriculum at Stubbins reflects our children's needs to explore, create, and understand the digital world. We are determined to ensure every pupil develops both a secure understanding of computing knowledge and the skills needed to use technology effectively.

The children are taught to think logically and work as computational thinkers, developing skills in problem-solving, reasoning, and programming. Pupils learn how to create, debug, and improve programs, as well as how to use technology to present and communicate their ideas.

We aim to develop pupils' knowledge and skills across computer science, information technology, and digital literacy. Our curriculum is structured to ensure:

- A secure understanding of key computing concepts, including algorithms, programming, data, and digital systems.

- Development of computational thinking through problem-solving and programming.
- Opportunities to create, organise, store, and present digital content.
- A progressive development of knowledge and skills from Early Years to Key Stage 2.
- Engagement with computing vocabulary to support understanding and communication.
- Opportunities for cross-curricular links with subjects such as English, Mathematics and Science.
- A strong focus on online safety, ensuring pupils understand how to use technology safely, respectfully, and responsibly.
- Inclusivity, ensuring all pupils can access and succeed in computing.

Our computing curriculum plays a crucial role in developing pupils' cultural capital by exposing them to a wide range of technology and digital experiences. In the context of computing, cultural capital refers to the knowledge, skills, and experiences that enable children to understand and engage with the digital world.

At our school, we aim to enrich the curriculum through wider opportunities such as practical computing activities, enrichment sessions and the use of a range of digital tools so that children leave Stubbins with an understanding of computing beyond the classroom.

Implementation

At Stubbins, Computing is delivered through subject specific teaching. To achieve our intent, computing is taught as a discrete subject within a carefully planned curriculum that ensures progression of skills and knowledge.

Our approach includes:

- A structured long-term plan ensuring full coverage of the National Curriculum.
- A carefully sequenced curriculum that builds on prior knowledge and develops pupils' understanding over time.
- The use of the **Teach Computing Curriculum (NCCE)**, which provides a coherent and progressive framework for teaching computing across the school, ensuring consistency and clear progression of skills.
- Lessons that are sequenced to build on prior learning, particularly in programming, where knowledge and skills are revisited and developed over time as part of a spiral curriculum .
- Use of high-quality resources, including digital devices, software, and online tools to support learning.
- Opportunities for pupils to engage in practical, hands-on computing activities, including programming and creating digital content.
- Regular assessment through formative and summative strategies, including quizzes, discussions, and practical outcomes.
- Continuous professional development for staff to enhance subject knowledge and effective teaching strategies.
- Use of high-quality teaching strategies, including modelling, scaffolding, and pre-teaching of vocabulary to support all learners.
- Opportunities for cross-curricular links, particularly through reading, writing, and mathematical skills.

Computing is taught through three key strands:

- **Computer Science** – developing understanding of algorithms, programming, and how digital systems work.
- **Information Technology** – using technology to create, organise, and present content.
- **Digital Literacy** – using technology safely, respectfully, and responsibly.

Computing is integrated across all key stages to ensure a progressive and cohesive learning experience:

Early Years Foundation Stage (EYFS):
Children develop early computing skills through exploration, play, and hands-on experiences, supported by the Barefoot Computing programme.

Key Stage 1:
Pupils begin to develop their understanding of algorithms, simple programming, and the purposeful use of technology.

Key Stage 2:
Pupils build on their prior knowledge by developing more complex programming skills, understanding networks, and using a wider range of software and tools.

Whole School Approach:
Computing is enriched through enrichment sessions, practical activities, and cross-curricular opportunities that enhance engagement and deepen understanding.

Long Term and Medium Term Planning

Our computing curriculum has been mapped out across a long-term plan to show progression across the school. The subject has its own long-term plan alongside year group curriculum maps which detail progression across the year in more detail.

The Teach Computing Curriculum ensures that learning is organised into units that build on prior knowledge, with lessons taught in sequence to support progression and understanding.

Medium term plans clearly identify the knowledge, skills and vocabulary to be taught within each unit. These plans provide key vocabulary, prior knowledge and clear learning outcomes for teachers.

Vocabulary
Staff explicitly model and teach subject-specific vocabulary such as algorithm, program, debug, and data. Key vocabulary is displayed in classrooms and referred to throughout lessons to support understanding and communication.

Resources
Pupils use a range of digital devices, including laptops and iPads, as well as software and online tools to support learning. Where appropriate, physical computing devices may be used to enhance learning and engagement.

Impact

Our computing curriculum is designed in such a way that children can talk confidently about what they have been learning in computing, using subject-specific vocabulary and applying their knowledge to a range of contexts. Children are engaged in lessons and can recall their learning over time. Pupils' work demonstrates that computing is taught at an age-appropriate standard across each year group, with opportunities planned for pupils working at greater depth.

Children leave Year 6 prepared for life in the wider community, with a secure understanding of computing knowledge and the ability to apply this to real-world situations. The computing curriculum at Stubbins is designed to form a strong foundation for their learning at Key Stage 3 and beyond.

Children will:

- Be able to talk confidently about computing concepts and use appropriate vocabulary.
- Demonstrate a secure understanding of key computing knowledge across computer science, information technology, and digital literacy.
- Apply computational thinking skills to solve problems and create solutions.
- Be able to design, write, and debug programs.
- Use technology purposefully to create, organise, and present digital content.
- Understand how to use technology safely, respectfully, and responsibly.
- Make links between computing and everyday life.
- Meet the end of key stage expectations outlined in the National Curriculum for computing.

The impact of our computing curriculum is reflected in pupils who:

- Develop a secure understanding of computing concepts and can explain their thinking clearly.
- Use computational thinking to solve problems and debug programs.
- Demonstrate confidence and independence when using technology.
- Recognise the importance of computing in the modern world.
- Show clear progression in their knowledge and skills, as evidenced through assessment, discussions, and work scrutiny.
- Are well-prepared for the next stage of their education with a secure foundation in computing.

Assessment Opportunities

Stubbins uses assessment to enable staff to understand what pupils have learnt before, what they need to learn now and what they will learn next. The impact of our computing curriculum can be monitored through both formative and summative assessment opportunities. Computing assessment is ongoing throughout units to inform teachers' planning, activities, and adaptive teaching.

Formative assessment

Formative assessment is ongoing throughout computing units to inform teachers' planning of future lessons and adaptive teaching. This includes:

- Questioning
- Discussions
- Observation of practical work
- Reviewing pupils' digital and recorded work

Summative assessment

Summative assessment is completed at the end of each unit and may take the form of quizzes, practical tasks, or digital outcomes.

At the end of each school year pupils will be assessed within one of the following bands:

- Working Towards the curriculum (WT)
- Working at Expected (EXP)

Marking
Children receive regular feedback that follows the school's marking and feedback policy.

Additional Assessment Methods

- Teacher observations during lessons
- Pupil voice to assess understanding and engagement
- Work scrutiny to ensure progression and depth

Regular monitoring, including lesson observations, pupil voice, and work scrutiny, ensures that the computing curriculum is effectively delivered and continues to meet the needs of all learners.

Inclusion

Adaptive teaching and scaffolding ensure that computing lessons can be accessed and enjoyed by all pupils, with opportunities to extend learning where appropriate. Lessons are planned to remove barriers so that every pupil can achieve.

Teachers plan lessons so that pupils with SEND and/or disabilities can fully access the computing curriculum. This may include the use of practical resources, visual supports, adapted tasks, and additional adult support where necessary. Key vocabulary is explicitly taught and reinforced to support all learners, including those with English as an additional language (EAL).

More able pupils are challenged through opportunities for deeper thinking, problem-solving, and applying their knowledge in a range of contexts.

We are committed to ensuring that our computing curriculum is accessible and meaningful for all learners. This is achieved through:

- Adapting lessons to meet the needs of all pupils
- Providing practical, hands-on learning opportunities
- Using scaffolding and modelling to support understanding
- Encouraging independence and confidence when using technology

Equality and Accessibility

Embedding the teaching of British Values—such as democracy, the rule of law, individual liberty, mutual respect, and tolerance—within computing helps pupils understand their relevance in today's digital society.

Computing provides opportunities to explore how technology impacts society and the wider world. Pupils learn to respect others online and understand the importance of responsible digital behaviour.

Additionally, promoting awareness of the Protected Characteristics outlined in the Equality Act 2010 ensures that pupils develop an appreciation for diversity and respect for others.

For example, pupils may:

- Learn about a diverse range of individuals working in computing
- Explore how technology impacts different groups of people
- Discuss online behaviour and digital responsibility

Cross Curricular links

Computing provides valuable opportunities for learning across different subjects, including:

English:
Developing writing and communication skills through digital content creation.

Mathematics:
Applying logical thinking, sequencing, and data handling skills.

Science:
Understanding how technology is used in scientific enquiry and data collection.

Geography:
Using digital tools to explore and present information about the world.

Art and Design:
Creating digital media, including images, graphics, and animations.

PSHE and Citizenship:
Understanding online safety, digital responsibility, and respectful communication

Links to Other Policies

This policy should be read alongside the following policies:

- Teaching and Learning Policy
- Special Educational Needs and Disability (SEND) Policy
- Equality and Diversity Policy
- Assessment Policy
- PSHE and Citizenship Policy
- English Policy
- Online Safety Policy
- ICT and Acceptable Use Policy