



Temple Sowerby CE Primary School

Computing Policy

2022/2024

Approved by	
Name:	Mr K Laithwaite - Headteacher
Signed:	
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Living for learning; learning for life.

Our Vision

At Temple Sowerby CE Primary School, our vision for the school community is rooted in a deep respect for our human, social, and cultural values, expressed in a caring Christian ethos. We aim to provide high academic standards and a wide range of experiences and opportunities. In doing so, we encourage all children to flourish by giving them the skills they need to become good citizens and to discover life in all its fullness (John 10:10).

Policy Statement

Computers are now part of everyday life. For most of us, technology is essential to our lives, at home and at work. 'Computational thinking' is a skill children must be taught if they are to be ready for the workplace and able to participate effectively in this digital world.

The new national curriculum for computing has been developed to equip young people in England with the foundational skills, knowledge and understanding of computing they will need for the rest of their lives. Through the new programme of study for computing, they will learn how computers and computer systems work, they will design and build programs, develop their ideas using technology and create a range of content.

Intent

Computers are now part of everyday life. For most of us, technology is essential to our lives, at home and at work. 'Computational thinking' is a skill children must be taught if they are to be ready for the workplace and able to participate effectively in this digital world.

At Temple Sowerby CE School, we want to provide our children with the foundational skills, knowledge and understanding of computing they will need for the rest of their lives. Through our Computing curriculum, they will learn how computers and computer systems work, they will design and build programs, develop their ideas using technology and create a range of content.

We aim to use Computing as a tool to enhance learning throughout the curriculum, to equip pupils with the confidence and capability to use Computing throughout their later life and ensure they have an understanding of how to use Computing safely and responsibly.

At Temple Sowerby CE Primary School we aim to:

- Provide a relevant, challenging and enjoyable Computing curriculum for all pupils.
- Meet the requirements of the National Curriculum programmes of study for Computing.
- Use Computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use Computing throughout their later life.
- To enhance learning in other areas of the curriculum using computational skills.
- To develop an understanding of how to use Computing safely and responsibly

Implementation

At Temple Sowerby CE Primary School, Computing is taught discretely in mixed-age classes, supplemented by opportunities for cross-curricular learning, such as in Maths, English, Design Technology and RHSE.

Each school year begins with an online safety unit, reflecting the increasing importance of this key area for children. This focus on safety is then revisited throughout the year, such as through Safer Internet Day and visits from specialists and our local PCSO.

Subsequent units throughout each year ensure children learn about computing systems and networks, programming, creating media and data handling. There are also 'Skills Showcase' units which give children the chance to combine and apply skills and knowledge gained, from a range of the five key areas above, to produce a specific outcome.

To enable pupils to access the Computing curriculum, we have enough Chromebook computers for each child to use their own, a set of Ipads (used primarily for research) and a range of additional resources such as Coding Caterpillars and Micro Bit mini computers for coding. We also use the Google Classroom learning platform.

These resources are continually monitored by the subject leader to ensure we have the resources required to deliver the Computing element of the new National Curriculum.

Health and Safety

The school takes very seriously and is aware of the health and safety issues surrounding children's use of ICT. We ensure that pupils have a safe environment in which to learn. We ensure effective filters are in place to safeguard pupils. As such, we will ensure that:

- All fixed and portable appliance in school are tested by a LA approved contractor every twelve months.
- Damaged equipment is reported to the school business manager who will arrange for repair or disposal.
- Online safety is integrated into our Computing curriculum and promoted through assemblies and Internet Safety Day. There is also a link on our school website to direct parents to further information on how to keep children safe online.
- Children learn about rights and responsibilities when using the Internet
- Staff sign and acceptable use agreement to ensure they are using school computer equipment appropriately.

Subject Leadership:

The coordination and planning of the computing curriculum are the responsibility of the subject leader, who also:

- supports colleagues in their teaching, by keeping informed about current developments in computing and by providing a strategic lead and direction for this subject

- monitor the quality of teaching in the subject by reviewing evidence of the children’s work, discussing learning with children and observing computing lessons across the school.
- Embrace new initiatives and support the implementation of whole school approaches e.g, sharing safer internet messages at assemblies and sharing of the computing policy
- Promote the cross-curricular use of computing, e.g. supporting the celebration of Internet E-Safety Day each year.
- Manage the provision and deployment of resources
- Encourage and support colleagues within their use of computing e.g. brokering external support for tech or curriculum whenever this is identified as a need across school.
- Act as a contact point between the school and support agencies and report to the governing board on the spending and impact of any computing funding.
- Provide relevant technical support for teachers in terms of basic troubleshooting.

Impact

By the end of Key Stage 1, children will understand what algorithms are and also be able to create and debug simple programs of their own. They should be developing logical reasoning skills and use devices to create, organise, store, manipulate and retrieve digital content. Children should recognise where technology is used outside of school and understand how to keep themselves safe online.

By the end of Key Stage 2, children will be able to create and debug more complicated programs with specific goals and understand concepts including variables and sequence, selection, and repetition in programs. They should have developed their logical reasoning skills and learned how to use websites and other internet services. Children should have a better understanding of using devices for collecting, analysing and presenting back data and information and be able to select use and combine a variety of software. They should be able to use technology in a safe, respectful and responsible way and understand how to stay safe online and how to report concerns about content and contact.

Assessment

We assess the children’s work in Computing through ongoing observation of their work and through short end of unit quizzes. Teachers record the progress made by children on a termly basis. In doing so, this highlights implications for future teaching and informs future planning within the subject.

Appendix 1 - National Curriculum Coverage:

There are three aspects of the computing curriculum: computer science (CS), information technology (IT) and digital literacy (DL).

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, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

The National Curriculum can be broken down into these sections, as follows:

	Key Stage 1	Key Stage 2
<p>CS</p> <p>Computer Science</p>	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web</p> <p>Appreciate how [search] results are selected and ranked</p>
<p>IT</p> <p>Information Technology</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Use search technologies effectively</p> <p>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>
<p>DL</p> <p>Digital Literacy</p>	<p>Recognise common uses of information technology beyond school</p> <p>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</p>	<p>Understand the opportunities [networks] offer for communication and collaboration</p> <p>Be discerning in evaluating digital content</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>

Appendix 2 - Our Computing Curriculum

At Temple Sowerby CE Primary School, Computing is taught as a stand-alone subject - individual units are taught each half-term in 2 year cycles (Key Stage 1, Year 3/4 and Year 5/6). Our curriculum is designed to place a high emphasis on internet safety (included at the start of each year), whilst also covering all aspects of computer science (CS), information technology (IT) and digital literacy (DL).

Key Stage 1:

Cycle	Autumn		Spring		Summer	
A	Online Safety Y2 (4 lessons) What is a computer?	Programming Algorithms / debugging	Word Processing	Programming: Scratch Jr	Creating Media: Stop Motion	Data Handling: International Space Station
B	Online Safety Y1 (4 lessons) Improving mouse skills	Programming: Algorithms Unplugged	Skills Showcase: Rocket to the moon	Programming: Beebots	Creating Media: Digital Imagery	Data Handling: Introduction to data

Lower Key Stage 2:

Cycle	Autumn		Spring		Summer	
A	Online Safety	Programming Further Coding With Scratch	Computing Systems and Networks Emailing	Computing Systems and Networks Journey Inside a computer	Creating Media Website Design	Data Handling: Comparison card databases
B	Online Safety	Programming: Scratch	Computing Systems and Networks Networks	Computing Systems and Networks Collaborative Learning	Skills Showcase: HTML	Data Handling: Investigating Weather

Upper Key Stage 2:

Cycle	Autumn		Spring		Summer	
A	Online Safety	Programming music	Computing Systems and Networks Bletchley Park	Creating Media History of computers	Creating Media Stop Motion Animation	Data Handling: Big Data 1
B	Online Safety	Programming: Lego Wedo	Computing Systems and Networks Search Engines	Programming Microbits	Skills Showcase: Inventing a Product	Data Handling: Big Data 2