

Sherburn Primary School

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 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. As pupils progress through the school, they are given increasing control over their use of choice in applications available in school.

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. It also teaches children the skills to minimise any risks to themselves when using computers and to be able to make informed choices in their use of the internet.

Aims

The national curriculum for computing aims to ensure that all pupils:

- 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.

Teaching and learning

As the aim of Computing is to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible. While at times we do give children direct instruction on how to use hardware or software, following the schools computer planning, our teaching in Computing is also for individuals or groups of children to use computers to support them with whatever they are trying to study. Therefore, for example, children might research a history topic or they might investigate a particular issue by using the Internet. Children who are learning Science might use the computer to model a problem or to analyse data. We encourage the children to explore ways in which the use of computing can improve their results, for example, how a piece of writing can be edited or how the presentation of a piece of work can be improved by moving text about. We

recognise that all classes have children with widely differing abilities in information technology and not all children have access to IT equipment at home, so activities will be matched to the ability and experience of the child.

The school uses the National Curriculum scheme of work for Computing as the basis for its curriculum planning.

Early Years Foundation Stage

Children should be taught to recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. The children have regular access to laptops and iPads in their continuous provision.

Key Stage 1

During their time in Key Stage 1 children should be taught to:

- 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
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond school
- 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.

Key Stage 2

During Key Stage 2 children should:

- 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
- 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
- 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
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Internet and Online use

All children are taught how to minimise the risk to themselves and others in accordance with the School and LEA's Online Safety Policies.

Our Online Safety and Acceptable Use Policy is regularly updated signed by all staff.

Health and Safety

We recognise the importance of health and safety issues and the potential risks with regard to computing equipment, especially when using the hardware and accessing the Internet and pupil data. All teachers are responsible for making sure that hardware and software are used correctly and safely on a day-to-day basis. Any problem should be reported to the computing technician and the computing coordinator. Filters are in place and are regularly updated to ensure that children cannot access inappropriate material online. All equipment is regularly PAT tested and any problems are swiftly dealt with.

Health and Safety issues in Computing, in line with School Health and Safety Policy, include taking care with:

- Setting up and moving equipment
- Establishing appropriate working conditions
- General electrical safety
- The comfort and regulations of work space
- Appropriate use of mobile equipment, for example digital cameras

Inclusion

At our school, we teach computing to all children, whatever their ability and individual needs. This is in line with the school's curriculum policy of providing a broad and balanced education to all children. Through our computing teaching, we provide learning opportunities that enable all pupils to make good progress. We strive to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this.

Equal opportunities

It is the responsibility of all teachers to ensure that all pupils, irrespective of gender, ability, ethnicity and social circumstance, have access to the curriculum and make the greatest progress possible. The use of differentiation by outcome allows children to respond to the work presented to them at the appropriate level.

Resources

Each Classroom has a computers linked to an interactive whiteboard. Apart from seven computers located in Sunshine and Rowan rooms, our computers are in a central Computer Suite. All computers are networked through the server, to enable access to the shared software on the server and to the Internet. A secure wireless network system is also in-place to enable tablet and other wireless device usage.

To ensure security of the system within the school, all existing and new computers make, date of purchase, serial numbers and location in school are recorded. Site licences for the software purchased are noted. Old computers are disposed of securely through ITSS. All staff and children have their own individual password protected login accounts for the school intranet. Staff also have an email address registered to our school and access to this via Office 365. Laptops and iPads are stored in suitable cabinets and all staff are responsible for the access and logging in/out of this equipment.

Other resources include programmable robots, CD recorders, digital cameras, MP3 and audio playing devices, calculators and video cameras, digital cameras, tablet technology, DVD players / recorders and scanners.

Responsibilities of the Computing Leader

The subject leader will monitor the implementation of this policy and offer guidance to teachers to ensure that pupils progress and develop skills within their computing capability. The subject leader will collect samples of work, stored in a class floor book, once a term from each class to monitor computing coverage and progression. These will be reviewed on an annual basis and will inform any subsequent changes to the computing long term planning.

Responsibilities of staff

Class teachers will deliver the National Curriculum entitlement for Computing, and will follow the school's computing plan and policy. Assessment will be made in line with the school's policy and children who are underachieving will be identified for extra support.

Computing Technician's Role

Through the LEA's SLA an ICT technician is allocated to us for half a day a week. He is responsible for maintenance, repair and professional advice.

Policy Updates

This policy and all other Computing documents should be updated annually or sooner if technological developments are introduced.

Gill Jones

Policy reviewed October 2019

Next review October 2021