



Computing Policy

Reviewed
Autumn 2023

Marshgate Primary School Computing Policy

INTRODUCTION

This has been written in accordance with the requirements of the National Curriculum.

An awareness of the requirement to teach internet (online) safety and security at all levels underpins this policy. Computing & PSHE, together with all lessons using or discussing technology will include online safety education.

AIMS / AMBITION

The very nature of computing means that to effectively learn the appropriate skills and knowledge, pupils need to have practical experience and opportunity to practise these skills regularly.

A pupil's computing capability is characterised by the ability to do the following:

- Use computing tools effectively including computers, programmable devices, digital cameras, video & software
- Use technology and the internet safely and effectively
- Understand and apply concepts of computer science including algorithms and coding
- Use sources of information to analyse, process and present
- Model, measure and control events
- Analyse and solve problems in computational terms including through the process of writing computer programs

At Marshgate, our ambition is to provide the highest standard of computing education which equips children to use computational thinking and creativity to understand and change the world. The curriculum will teach children key knowledge about how computers and computer systems work and how they are designed and programmed.

By the time children leave Marshgate, children will have gained key knowledge and skills in the three main areas of the computing curriculum: computer science (programming/coding and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully).

Our aims for computing at Marshgate Primary School are the following:

- To teach pupils to use computing equipment and software confidently, purposefully and responsibly
- To teach pupils to use the internet safely and respectfully to communicate and as a source of information
- To teach pupils how digital systems work and how to put this knowledge to use through programming

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- To enable pupils to communicate and handle information appropriately
- To encourage pupils to work with increasing independence and develop autonomy as they follow their own lines of enquiry using appropriate software and equipment
- To enable pupils to use computing to aid their problem solving in programming, recording and expression of work creatively
- To help pupils gain the knowledge and skills to use computing outside school
- To enable pupils to acquire attitudes and computing skills relevant to their present and future lives and as active participants in a digital world
- To enable pupils to become increasingly independent and digitally literate
- To use computing across the curriculum
- To promote pupils' enjoyment and interest in computing and computer science

NATIONAL CURRICULUM REQUIREMENTS

Early Years

Children in Early Years are given a broad, play-based experience of Computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments feature computing scenarios based on experience in the real world, such as in role play. Children are given opportunities to explore, observe and find out about a range of technology. Children also use a variety of different programmable devices and computer technology including recording devices that can support children to develop their communication skills. All Computing learning and teaching also ensures progression in the development of children's knowledge and skills in a coherent curriculum.

Key stage 1

Pupils are 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

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Key stage 2

Pupils are taught to:

- 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

PLANNING FOR CONTINUITY AND PROGRESSION

Marshgate Primary is a technology rich school and we enhance and extend Computing learning and teaching through full use of our equipment across the curriculum.

Each term, year groups use the 'Teach Computing' scheme of work developed by the National Centre for Computing Education and each year group has a computing long term plan that they use as a basis for their planning. The scheme of work ensures a progression of knowledge, skills and vocabulary whilst enriching their cultural capital. Teachers differentiate plans to ensure that the lessons taught are appropriately challenging for the individual child and class. The computing subject leader, SLT and teaching staff have access to all Computing planning via 'Staff share.' The units of work show progression through each Key Stage and ensure continuity. Each year group is also taught online safety as is documented in the online safety policy.

A weekly plan is produced on a grid to show the precise content of each lesson. Weekly plans are also kept on 'Staff share.'

CROSS CURRICULAR LINKS

Within the 'Teach Computing' scheme of work, there are links with all areas of the curriculum.

Computing is taught in the classroom as an integral part of the curriculum at all key stages. The year groups' medium term plans and ongoing classroom record show how they are linking Computing across the curriculum.

Computing is carried out both in the classroom (on classroom computers, laptops, chromebooks and ipads) and in the Computing Suite.

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The teacher should choose from a range of organisational methods to best meet the requirements of the specific task. These include whole class sessions, groups, pairs and individual work.

EQUAL OPPORTUNITIES

It is the responsibility of the individual teachers to ensure that all pupils have equal access and opportunity to use computing equipment and software. We will ensure that all children are provided with the same learning opportunities whatever their social class, gender, culture, race, disability or learning difficulties.

INDIVIDUAL NEEDS

The range of pupils' abilities is considered in the teachers' planning.

The more and less able pupils are catered for by a range of methods:

- the amount of support provided, either by the teacher, peer, or other adults
- the amount of time pupils are given for a task
- pupils having separate tasks to match their abilities

INCLUSION

Computing offers pupils with SEND opportunities to:

- work with increasing independence in communication, language and literacy
- work on skills across the curriculum with increased confidence and understanding
- develop and enhance their work in all areas of the curriculum
- become fully involved in physical and practical activities using tools
- work on joint projects with others
- present work of a high standard
- access a wide range of ideas, information and cultures

In response to these opportunities, pupils can make progress in Computing by:

- experiencing the results of personal actions
- applying technological knowledge and understanding to everyday life
- investigating the familiar and later the broader technological environment
- working on smaller and then larger tasks

MODIFYING THE COMPUTING CURRICULUM FOR PUPILS WITH SEND

The statutory inclusion statement of the National Curriculum requires staff to modify programmes of the study to give all pupils relevant and appropriately challenging work at each key stage. Staff should teach knowledge, skills and understanding in ways that match and challenge their pupils' abilities.

Staff can modify the Computing programmes of study for pupils with learning difficulties by:

- choosing material from an earlier key stage

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- maintaining, consolidating and reinforcing previous learning, as well as introducing new knowledge, skills and understanding
- focusing on one aspect, or a limited number of aspects, in depth or in outline, of the programmes of study
- including experiences that encourage pupils at early stages of learning to gain knowledge, skills and understanding of Computing in the context of everyday activities
- letting pupils experience Computing first hand, for example, by personal exploration of simple communication and technological aids
- planning in personal contacts in the school and the wider community

IMPROVING ACCESS TO THE COMPUTING CURRICULUM

Staff can make Computing more accessible by:

- using materials and resources that pupils can experience and understand through touch, sight and sound
- using a range of activities which offer widely varying experiences
- using Computing software appropriate to the learning needs and age of pupils
- using specialist aids, equipment and software
- using equipment adapted to meet individual needs

Staff teaching Computing can support learning by:

- presenting activities in a structured, incremental manner
- selecting tasks in contexts familiar to pupils
- choosing age-appropriate software and online resources
- balancing support from adults or pupils' peers with space and freedom for pupils to support themselves
- taking into account the pace at which pupils work and the physical effort required
- balancing consistency, familiarity and challenge according to pupils' needs
- ensuring that pupils reinforce their emerging Computing skills in work across the curriculum

ASSESSMENT OF COMPUTING AS A TAUGHT SUBJECT

Pupils' progress is being continually assessed to:

- check the skills, knowledge and understanding pupils have learnt
- identify individual progress
- aid future planning

ASSESSMENT METHODS

Teachers use a range of assessment methods including:

- marking computing assignments
- individual group or class discussion or observations
- formal assessment at the end of units
- pupil's personal evaluations

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RECORDING AND REPORTING

Computing software is used to record and report across the school:

- formative records are produced
- summative records are completed at the end of every year for all children in every key stage
- an annual written report to parents is produced using a 'Target Tracker' template
- twice yearly teacher-parent meetings are prepared

ROLE OF COMPUTING SUBJECT LEADER

It's the Subject leader's role to:

- ensure that all aspects of this policy are put into practise
- distribute resources appropriately
- offer support and advice to all staff members on teaching methods, record keeping and use of Computing equipment.
- provide 'Inset' for staff which addresses needs identified either by staff, the subject leader or SLT.
- identify and address areas which need re-sorting; within budgetary limitations.
- keep up to date with Computing developments.
- inform staff of and distribute to staff, new resources.
- Make staff aware of how to take the appropriate steps to resolve any hardware or software technical problems staff encounter (contacting Colwyn – IT providers / technicians)
- update this policy when necessary.
- make a visual check of all electrical and Computing equipment on an annual basis

The Computing subject leader is also responsible for liaising with the Head Teacher / DSL and the IT Provider (Colwyn) to ensure:

Appropriate filtering and monitoring systems are in place to ensure pupils are safe from potentially harmful and inappropriate content and contact online while at school, including terrorist and extremist material.

IT systems are secure and protected against viruses and malware, and that such safety mechanisms are updated regularly.

Access to potentially dangerous sites is blocked and, where possible, the downloading of potentially dangerous files are prevented.

Any online safety incidents that are reported to the computing subject leader or that are noticed by Colwyn are passed on immediately to the Head Teacher / DSL.

SOFTWARE / RESOURCES

All desktop computers and laptops feature a large range of pre-installed curriculum software. Any software personally brought to school by staff, parents or pupils must be approved by the computing subject leader and installed by Colwyn. This is to ensure copyright laws are not being infringed, to check its compatibility with the school's hardware and to ensure the school's network remains secure.

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OTHER

The school network links all of the computers; users can share printers, programs and information. The main component of the network is the server, which stores and provides network programs and user files, co-ordinates printing and provides a data security system.

A network has also been created on 'Google Share' for children and Teachers to access.

All devices require children and teachers to use their own user ID and password. Children store their work in their own folders on the server and on 'Google Share.'

Digital cameras, both for adults and children, mobile devices and the video camera are stored securely across the site.

Laptop / Chromebook trolleys are locked.

HEALTH AND SAFETY

To ensure standards in health and safety are met, staff are advised to do the following:

- make quick visual checks whenever equipment is used, e.g. for frayed or trapped cables.
- check seating and posture of children before every computer session starts, (all children are seated in age appropriate chairs or height adjustable chairs in the Computing Suite)
- All electrical equipment will be safety checked annually. A dated label will be placed on each piece to confirm this. Electrical equipment brought from outside the school **must not** be used as it will not comply with this H&S regulation.

INTERNET ACCESS AND FILTERING

Teachers must supervise pupils and take all responsible measures to ensure that children access only appropriate material. Internet access in the school is provided from London Grid For Learning (LGFL), who provide a service designed for pupils, which includes filtering appropriate to the age of the pupils.

Pupils are taught to be critically aware of the materials they are shown and how to validate information before accepting its accuracy. See the Online Safety Policy for more information.

REMOTE LEARNING FROM HOME

Children are only directed towards approved home learning platforms – e.g. Education City, MyMaths and Timestables Rockstars.

Seesaw and Google Classroom are accessed by children and used to organise and complete some school work and homework (with oversight and supervision from parents when at home). The children use logins set-up by the school and / or through LGFL. Where children are directed towards links, teachers must ensure they have been checked and all possible measures taken to assess the suitability of the resource and how it links to the intended learning objective.

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NETWORK SECURITY

No users may change or modify the hardware, network wiring or software configurations. The IT technicians (Colwyn) are the only personnel with the network administration rights.

DISASTER RECOVERY PROCEDURES

All backup services are carried out by Colwyn and are part of the SLA agreement. This includes error diagnosis, configuration and change management and warranty, and Spare Physical Components. If a disaster occurs, any loss of computing services will be communicated to Colwyn for immediate support.

TRAINING AND SUPPORT PROVISION

The Computing subject leader will provide training and support for all new and existing users in the use of computers. Further development/training can be provided through CPD programmes.

All staff are trained in safeguarding procedures, including elements of online safety and The Prevent Duty.

HARDWARE AND SOFTWARE QUALITY, MAINTENANCE AND REPLACEMENT

Colwyn technicians must be notified of any problems encountered with hardware or software not working properly, by logging problems via the service helpdesk. Teachers log problems directly through email to this helpdesk. The Deputy Head Teacher is also cc'd.

LEGAL DUTIES AND RESPONSIBILITIES

This policy takes into account the National Curriculum computing programmes of study.

This and the school's online safety policy is based on the Department for Education's (DfE) statutory safeguarding guidance, Keeping Children Safe in Education, and its advice for schools on:

- Teaching online safety in schools
- Preventing and tackling bullying and cyber-bullying: advice for headteachers and school staff
- Relationships and sex education
- Searching, screening and confiscation

It also refers to the Department's guidance on protecting children from radicalisation. It reflects existing legislation, including but not limited to the Education Act 1996 (as amended), the Education and Inspections Act 2006 and the Equality Act 2010. In addition, it reflects the Education Act 2011, which has given teachers stronger powers to tackle cyber-bullying, if necessary, searching for and deleting inappropriate images or files on pupils' electronic devices where they believe there is a 'good reason' to do so.

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Our school is registered with the Data Protection Commissioner's office to protect personal data; however individuals have a right of access to personal educational data belonging to them. Please see GDPR Policy.

ONLINE SAFETY POLICY (Please also see separate Online Safety Policy document)

Online safety forms an integral part of the curriculum and is taught within all units of Computing. It is also included in PSHE and other subjects and the school provides additional education on online safety through assemblies, parent presentations and communications. Please see online safety policy for more information on what is taught as part of the curriculum.

We use LGFL for our Internet Service provider, as recommended by the Richmond Local Authority. They provide the following services:

- Facility for multiple access.
- Filtering from the less desirable elements of the internet
- The filtering of junk mail.
- The ability to configure internet access i.e. to limit access to news groups, chat rooms, personal email.
- e-mail addresses.

Virus protection software as recommended by PFI provider / Colwyn will be installed on all school systems.

All teachers are familiar with the Pupil's Code of Practice for the use of the internet. The use of on-line resources should always be supervised and the Code of Practice adhered to.

All staff are familiar with and adhere to the Teachers' Code of Practice for safer internet use.

The Obscene Publications Act 1959 and 1964 makes it an offence to have an obscene article for publication or gain (publication includes distribution, circulating, selling, hiring, giving or lending, showing, playing or projecting). Disciplinary action will be taken in the event of teachers using the internet inappropriately.

If pupils either deliberately or accidentally access or download unsuitable materials, the following procedure should be followed:

1. The screen should be turned off. Any printed materials or disks should be confiscated.
2. The pupil's access to the internet should be suspended.
3. Refer to the Behaviour Policy for any further action.

The Colwyn technician will audit internet linked computers on a regular basis to ensure that no inappropriate files have been downloaded.

All internet activity should be appropriate to staff professional activity or pupil's education, however, the occasional personal use by teachers is permitted.

All staff are trained in Safeguarding procedures, including elements of online safety and The Prevent Duty.

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THE PREVENT DUTY AND ONLINE SAFETY

All schools have a duty to ensure that children are safe from terrorist and extremist material when accessing the internet in schools. We have an important role to play in equipping children to stay safe online. Our staff receive regular training and are aware of the risks posed by online activity of extremists and have a duty to take action if they believe the wellbeing of any pupil is being compromised.

REVIEW

As this is a rapidly changing area, this Computing Policy and respective Online Safety Policy is subject to frequent monitoring and review.

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MARSHGATE PRIMARY SCHOOL PUPILS' ONLINE SAFETY CODE OF PRACTICE

- I will only use the internet when supervised by a teacher or adult.
- I will never tell anyone I meet on the internet my home address, my telephone number or my school's name, unless my teacher specifically gives me permission.
- I will never send anyone my picture without permission from my teacher/parent/carer.
- I will never give my password to anyone; even my best friend and I will log off when I have finished using the computer.
- I will never arrange to meet anyone in person without first agreeing it with my parent/teacher/carer and get them to come to the first meeting.
- I will never 'hang around' in an internet chat room if someone says or writes something which makes me feel uncomfortable or worried and I will always report it to a teacher or parent.
- I will never respond to unpleasant, suggestive or bullying e-mails or social media posts and I will always report it to a teacher or a parent.
- I will not look for bad language or distasteful images while I'm on-line and I will report bad language or distasteful images to a teacher or a parent if I come across them accidentally.
- I will always be myself and will not pretend to be anyone or anything I am not.
- I know that my teacher and the internet provider will check the sites I have visited.
- I understand that I can access only sites and material relevant to my work in school and that I will not be able to use the internet if I deliberately misuse it or the school's systems.
- I know that the posting of anonymous messages and the forwarding of chain messages is not allowed.
- I know that the contents of my e-mail messages will be monitored by the teacher and Computing Technicians.
- I may not download software from the internet (including screen savers, games, video clips, audio clips, *.exe files)
- I know that information on the internet may not always be reliable and sources may need checking.
- I will not use e-mail to send or encourage material which is illegal, offensive or annoying or invades another person's privacy.

If required to be signed and dated, the detail below can be included.

Pupil's name: _____

School: _____

I have read the Pupil's Code of Practice and I have discussed it with my child.
We agree to support the school's policy on the use of the Internet.

Signed: _____ (Parent/Guardian/Carer)

Pupil: _____

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MARSHGATE PRIMARY SCHOOL STAFF ONLINE SAFETY CODE OF PRACTICE

- Teaching staff should closely monitor and scrutinise what their pupils are accessing on the Internet including checking the history of pages.
- Computer monitor screens should be readily visible for the teacher, so they can monitor what the pupil is accessing.
- Pupils should have clear guidelines for the content of e-mail messages, sending and receiving procedures.
- Use of the internet by pupils should be supervised by a teacher or adult.
- Pupils should be taught skills and techniques to enable efficient, effective and safe use of the internet.
- Pupils should have a clearly defined focus for using the internet and e-mail.
- If offensive materials are found the monitor should be switched off (but the device itself should not be), any printed materials confiscated and offensive URLs given to the DSL.
- Virus protection has been provided by the school as viruses can be downloaded accidentally from the internet. Teachers should be aware that pupils bringing work from home on USB sticks, could also infect the computer.
- The recommended ISP will regularly check sites visited by schools (all pupils and staff).
- It is recommended that pupils do not use open forums such as newsgroups or chat rooms.
- Disciplinary action may be taken if the internet is used inappropriately by staff e.g. for accessing pornographic, racist or offensive material or for personal financial gain, gambling, political purposes or advertising (this includes creating, sharing, linking to or sending such material).
- The internet should not be used by staff in any way which could harm the school's reputation.
- No access is permitted by staff through the school IT systems to social networking sites or chat rooms.
- No improper language should be used by staff when communicating online, including in emails or other messaging services (see e-mail policy)
- Staff are not permitted to install any unauthorised software, or connect unauthorised hardware or devices to the school's network without permission.
- Staff should not share passwords with others or log in to the school's network using someone else's details.
- Photographs of pupils should not be taken without checking with teachers first.
- Staff should not share confidential information about the school, its pupils or staff.
- Staff should not access, modify or share data they're not authorised to access, modify or share.
- No staff should promote private businesses, unless that business is directly related to the school.
- All reasonable steps should be taken to ensure that work devices are secure and password-protected when using them outside school, and keep all data securely stored in accordance with this policy and the school's data protection policy.
- I have read the Internet Code of Practice for pupils and teachers and I am familiar with the school's Online Safety and Computing Policies including e-mail, web site creation, remote learning from home and mobile phone policies.

If required to be signed and dated, the detail below can be included.

I agree to abide by these policies and the staff's Internet Code of Practice.

Name: _____

Signed: _____

Date: _____