



Northfield Primary & Nursery School

Computing Policy

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Review date: March 2026

INTRODUCTION

“ [The computing curriculum]... is ambitious and designed to give all learners, particularly the most disadvantaged and those with special educational needs and/or disabilities (SEND) or high needs, the knowledge and cultural capital they need to succeed in life. Also, the provider’s curriculum is coherently planned and sequenced towards cumulatively sufficient knowledge and skills for future learning and employment.”

Ref: Education Inspection Framework , 2019

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, 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.

At Northfield, we believe that Computing is an integral part of preparing children to live in a world where technology is continuously and rapidly evolving, so much so that children are being prepared to work with technology that doesn’t even exist yet. For this reason, we feel that it is important that children are able to participate in the creation of these new tools to fully grasp the relevance and possibilities of emerging technologies and thus preparing them for the world of work.

At our school we want pupils to be MASTERS of technology and not slaves to it. Technology is everywhere and will play a pivotal part in pupils' lives. Therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to be creators not consumers and our broad curriculum encompassing computer science, information technology and digital literacy reflects this. We want our pupils to understand that there is always a choice with using technology and as a school we utilise technology to model positive use. We recognise that the best prevention for a lot of issues we currently see with technology/social media is through education. Building our knowledge in this subject will allow pupils to effectively demonstrate their learning through creative use of technology. We recognise that technology can allow pupils to share their learning in creative ways. We also understand the accessibility opportunities technology can provide. Our knowledge rich curriculum has to be balanced with the opportunity for pupils to apply

their knowledge creatively which will in turn help them to become skilful computer scientists. We encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible. We want our pupils to be fluent with a range of tools to best express their understanding so that our children have the independence and confidence to choose the best tool to fulfil the task and challenge set by teachers at an age-appropriate stage.

AIMS OF COMPUTING AT NORTHFIELD PRIMARY SCHOOL

The school aims to cover the curriculum under three strands:

Computer Science

- To enable children to become confident coders on a range of devices.
- To create opportunities for collaborative and independent learning.
- To develop children's understanding of technology and how it is constantly evolving.

Digital Literacy

- To enable a safe computing environment through appropriate computing behaviours.
- To allow children to explore a range of digital devices.
- To promote pupils' moral, social and cultural development.

Information Technology

- To develop ICT as a cross-curricular tool to enhance and enrich learning and progression.
- To promote learning through the development of thinking skills.
- To enable children to understand and appreciate their place in the modern world.

The National Curriculum for Computing:

In order to develop the Computing and ICT capability and understanding of each child we will provide through our planning:

- Computing through all three strands taught within the classroom.
- Continuity throughout the school to ensure that experience and skills are developed in a cohesive and consistent way.
- Access to laptops and ipads within class or in designated communal areas.
- Experience of a variety of well-planned, structured and progressive activities.
- Experience cross-curricular links to widen children's knowledge of the capability of computing including safe use of the Internet and other digital equipment.
- Opportunities for children to recognize the value of computing and ICT in their everyday lives and their future working life as active participants in a digital world.

By doing this we will fulfil the requirements of the National Curriculum.

ROLE OF THE COMPUTING LEADER

The Computing leader plays an important part in achieving these aims. Therefore it is important that all members of staff are aware of this significant role, as outlined below:

- Highlight areas for the development of Computing within the School Improvement Plan.
- Co-ordinate the purchase and maintenance of equipment.
- Ensure that all equipment is safe to use.
- Review CPD and training needs of staff and provide suitable training opportunities.
- Disseminate relevant information from all courses to all members of staff.
- Keep up to date with development and new technologies.
- Develop and maintain a progression plan ensuring a whole school approach to the planning, recording and assessment of Computing.
- Ensure that this policy is reviewed, updated and successfully implemented throughout the school.
- Ensure that Remote Education is accessible for all including Pupil Premium and SEND.
- Monitoring effectiveness of Computing across the school.
- Oversee the work of and liaise with outside providers regarding IT.

PROFESSIONAL DEVELOPMENT

CPD will be provided as school based training or through courses run by the Nottinghamshire Computing Network or other providers. The Computing leader will discuss with colleagues their CPD needs and encourage them to attend relevant courses or plan whole staff CPD through staff meetings or in-service training days.

PLANNING AND DELIVERY

Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, which focuses on the learning and development of children from birth to age five, there are many opportunities for young children to use technology to solve problems and produce creative outcomes. In particular, many areas of the framework provide opportunities for pupils to develop their ability to use computational thinking effectively.

As young children take part in a variety of tasks with digital devices, such as moving a Bee Bot around a classroom, they will already be familiar with the device before being asked to undertake tasks related to the key stage one (KS1 - ages 5 - 7 years) computing curriculum, such as writing and testing a simple program. Not only will children be keen to again use a device they had previously enjoyed using, their cognitive load will also be reduced, meaning they are more likely to succeed when undertaking activities linked to the next stage in their learning.

Within the revised EYFS statutory framework, the Technology strand within Understanding the World has been removed. However, there are opportunities within each area of the framework to enable practitioners to effectively prepare children for studying the computing curriculum.

In Key Stage 1 and 2 classes are allocated 1 hour per week in a computer suite. This time is to be used for Computing lessons with a Computing objective (i.e. discrete Computing). The Computing curriculum follows the Teach Computing schemes of work which are provided by the National Centre for Computing Education, taking into account the children's needs and abilities.

Teachers are strongly encouraged to use Computing for cross curricular purposes. Computing can be used across other subject areas, helping to provide a stimulating, creative curriculum which promotes a positive attitude to learning. Additional time can be booked in the computer suites for this purpose and Interactive screens are used in all classrooms and in some intervention areas. iPads are available for both Key Stage 1 and Key Stage 2 to use in class to help supplement learning in other subjects. These can be booked in advance.

Teachers need to be aware that Computing can be taught through the following strands:

- Algorithms – be able to comprehend, design, create and evaluate algorithms.
- Computer networks – understand how networks can be used to retrieve and share information, and how they come with associated risks.
- Computer systems – understand what a computer is, and how its constituent parts function together as a whole.
- Creating media – select and create a range of media including text, images, sounds and video.
- Data and information – understand how data is stored, organised and used to represent real-world artefacts and scenarios.
- Design and development – understand the activities involved in planning, creating and evaluating computing artefacts.
- Effective use of tools – use software tools to support computing work.
- Impact of technology – understand how individuals, systems and society as a whole interact with computer systems.
- Programming – create software to allow computers to solve problems.
- Safety and security – understand risks when using technology and how to protect individuals and systems.

PROGRESSION

Curriculum planning should ensure continuity, progression and adaptation. The school recognises that progression in Computing involves four main aspects: -

- The progressive development of pupils' skills, knowledge and understanding.
- Breadth of Computing applications.
- Increased complexity of contexts in which Computing is applied.
- The growing autonomy of the pupil in their learning.

ASSESSMENT, RECORDING AND REPORTING

Teacher's assessment of Computing will be recorded throughout the year and reported to parents at the end of each academic year. All work the children carry out is saved to each individual child's file, within Microsoft Teams, which can be accessed by their own personal login. Class and group activities can be recorded in the form of video, printouts, photographs etc. All collected and stored work will demonstrate appropriate coverage of the National Curriculum.

EQUAL OPPORTUNITIES

All pupils regardless of race, gender or ability should have the opportunity to develop their Computing capabilities with equal access to Computing resources, equal opportunities to develop Computing capabilities and use appropriate software.

PUPILS WITH SPECIAL EDUCATIONAL NEEDS

Pupils with Special Educational Needs benefit from using Computing as it enhances access to the curriculum, and this in turn encourages motivation and the development of skills. Technology may be used to ensure access to the curriculum: for example, iPads for visually impaired pupils with possible outside agency support for school.

HEALTH AND SAFETY

It is imperative that all electrical equipment is kept in good working order. To ensure the health and safety of pupils and staff the following guidelines must be adhered to:

- Pupils should not be allowed to switch on the power at the mains.
- No liquids are to be stored or placed near to electrical equipment.
- Pupils should always be supervised when using electrical equipment.
- All plugs, leads and equipment should be checked regularly and tested for electrical safety in accordance with County Council guidelines.
- Pupils should not be allowed to carry electrical equipment.
- Pupils and staff are to be shown and encouraged to position themselves appropriately to any equipment they are using.
- Pupils and staff are advised to not use the equipment for long periods of time without taking suitable breaks.
- All faults are to be reported to the leader as soon as possible.

CHILD PROTECTION

Computer networks, including those accessed via the Internet, are an important aspect of Computing. However, they present a possible risk to the spiritual, moral and social development of pupils, particularly in terms of the nature of some of the material that may be obtained via the Internet.

The school has tried to take measures to stop these influences through the following steps:

- No children are to be allowed access to the internet unsupervised.
- Children have been warned about the dangers and encouraged to report any such material that they may inadvertently find.
- When using the Internet firewalls and filters are installed by ATOM. Any material which passes through these filters are to be reported to the Computing leader and then to Nottinghamshire County Council as soon as possible.
- Where possible, web-sites are to be checked by a member of staff before general access is given.
- The web browser filters are set to an appropriate level on all children's logins.
- Use of the internet is monitored by ATOM and any words or phrases that are deemed inappropriate are reported to school, the perpetrator is spoken to and depending on the severity of the terms searched for, parents are contacted. Any monitored reports that are deemed severe enough are recorded on a spreadsheet on One Drive.

Further information about Child protection within Computing can be found in the schools Online Safety policy.

This states that during computing lessons pupils will be taught about the best ways to use the internet safely, especially linked to social networking sites for older pupils and also reminding pupils of the dangers of sharing personal information online. Should any issues arise the school's Safeguarding and Child Protection Policy should be followed.

As the use of social media by pupils is on the increase, our role in school is to teach them resilience and internet etiquette and safety to help them avoid problems in their future. We must teach them about the creation of their digital footprint and the impact it might have in the future. We must also teach them that not everything they see on the Internet is true and that Fake News (false reports of events, written and read on websites) exists. We must ensure that they understand that Trolling (a person who posts remarks or comments on Internet forums or message boards in an attempt to deliberately upset or provoke a reaction) is against the law as well as morally unpleasant. Pupils will also learn how to look after their emotional well-being in preparation for the time when they access social media.

Internet safety is taught by all classes with at least one internet safety lesson taught termly and on Safer Internet Day in February. It is also taught when appropriate in response to incidents in or outside of school as well as in the media. Internet safety is also covered through the schools PSHE – Talking Points scheme of work.

To comply with GDPR regulations, all names of children used on the school website only contain their first name and initial. When a child joins the school a website permission form is to be signed by the parent/carer to give the school permission to share their child's image on the website. There is also a further option for parents/carers to agree if the consent for the image of their child to be shared with outside providers.

REMOTE LEARNING

Within remote learning teachers are responsible for:

- Running their Microsoft Teams Classroom - setting work for home learning when a year group bubble closes/ or full lockdown:
- Create a timetable for the week-similar to that taught in school. This must include subjects from across the curriculum. The timetable must include a mixture of live and pre-recorded lessons, independent learning activities.
- Holding live lessons via Teams
- Ensuring children have access to learning for a minimum of 3hours a day increasing as children become older to four hours a day-this being a combination of a variety of leaning opportunities.
- Ensuring children have continued interaction with the teacher and other pupils.
- Creating online resources to support lessons throughout the week on Microsoft Teams/OneNote. These will range from pre-recorded lessons by the class teacher, live lessons, Oak Academy resources, White Rose, BBC Bitesize
- Ensuring children know how to complete assigned work, turn it in, use templates, take photos of written work and upload.
- Marking and commenting of children's learning-this could be verbal feedback during live sessions.
- Delivering online safety lessons to children-how to interact on the live stream, cyber bullying, appropriate language, safe searching. (use Safer Internet Day for this)
- Ensuring those pupils without access to ICT are supported through the use of school equipment if available and or paper copies/ workbooks. Remote learning leader will designate ICT equipment to those families in need on a priority basis due to the limited supply.

Providing feedback on work:

- Pupils can send any completed work to teachers via Microsoft Teams/OneNote.
- Teachers should mark work and return with a comment to the pupil within 24 hours.
- Keeping in touch with pupils and parents: Weekly well-being calls to parents and pupils.
- Contact details can be accessed from ScholarPack. Record all contacts with parents on 1Contact with home spreadsheet on Teams. In addition, alert the safeguarding team with any immediate concerns.
- Attending virtual meetings with staff, parents and pupils
- Bubble isolation groups are expected to attend a number of virtual meetings daily - and a variety of live lessons locations (e.g. avoid areas with background noise, nothing inappropriate in the background) and apply normal school dress code.

In the event of individual pupil self-isolation.

- Weekly home learning to be set via Microsoft Teams/OneNote for all individual pupils who find themselves in isolation and children in isolation are tracked daily to provide feedback on home learning where appropriate.
- Daily lessons span across the curriculum, lessons are closely matched to the curriculum delivered in school. Work is tailored to each pupil and those with SEN have individual work provided. Lessons for these pupils come from Oak Academy and other online sources.

The Remote Learning Leader

Alongside any teaching responsibilities, the remote learning leader is responsible for:

- Co-ordinating the remote learning approach across the school –alongside the SLT
- Monitoring the effectiveness of remote learning –reviewing work set by teachers weekly.
- Monitoring the security of remote learning systems, including data protection and safeguarding considerations.

Pupils and Parents/Carers.

Staff can expect pupils learning remotely to:

- Be contactable during the hours of the school day 8.40am –3.15pm –although they may not always be in front of a device the entire time
- Seek help if they need it, from teachers or teaching assistants
- Alert teachers if they're not able to complete work

Staff can expect parents to:

- Be respectful when making any complaints or concerns known to staff.
- Support the children to engage in their learning.
- To not be visible during live lessons.
- To keep resources/video/live lessons to the intended child only-no sharing outside of the school community.

Governing body

The governing body is responsible for:

- Monitoring the school's approach to providing remote learning to ensure education remains as high quality as possible.
- Ensuring that staff are certain that systems are appropriately secure, for both data protection and safeguarding reasons.

Accessing personal data

When accessing personal data for remote learning purposes, all staff members will:

- All staff have access to CPOMS to record any parent contact or concerns about children, this is accessed via a secure password. Ensure you log out after use. Do not allow access to the site to any third party.
- Teachers are able to access parent contact details via SCHOLARPACK using a secure password. Do not share any details with third parties and ensure SCHOLARPACK is logged off.
- School laptops and iPads are the school's preferred devices to be used when accessing any personal information on pupils.

Processing personal data

Staff members may need to collect and/or share personal data such as email addresses, contact phone numbers as part of the remote learning system. As long as this processing is necessary for the school's official functions, individuals won't need to give permission for this to happen. However, staff are reminded to collect and/or share as little personal data as possible online.

Internet safety during remote learning

An adult should always be nearby while a child is doing their online learning. They should check in frequently to make sure they're focused on their lesson. Check that the device has parental controls to keep them focused and keep parents/carers alert of any suspicious activity happening online. Parent/carers should double-check their home's WiFi and Internet security to prevent any hacks or dangerous activity from cybercriminals. All personal and learning software should be updated regularly and install any updates as soon as possible. To help support with the parents/carers should be advised to visit the following websites:

www.thinkuknow.co.uk

www.saferinternet.org.uk

www.nspcc.org.uk/keeping-children-safe/

www.internetmatters.org/schools-esafety/parent-online-support-pack-teachers/

www.childnet.com

Keeping devices secure

All staff members will take appropriate steps to ensure their devices remain secure. This includes, but is not limited to:

- Keeping the device password-protected –strong passwords are at least 8 characters, with a combination of upper and lower-case letters, numbers and special characters (e.g. asterisk or currency symbol)
- Ensuring the hard drive is encrypted–this means if the device is lost or stolen, no one can access the files stored on the hard drive by attaching it to a new device
- Making sure the device locks if left inactive for a period of time
- Not sharing the device among family or friends
- Installing antivirus and anti-spyware software
- Keeping operating systems up to date –always install the latest updates

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