



Northfield Primary & Nursery School

Computing Policy

Agreed date: March 2020

Review date: March 2022

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" 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.

AIMS OF COMPUTING AT NORTHFIELD PRIMARY SCHOOL

- Pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Pupils are responsible, competent, confident and creative users of information and communication technology.
- Pupils are aware of how to use the Internet safely and act appropriately when online.

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 INSET 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 the scheme of work ensuring a whole school approach to the planning, recording and assessment of Computing.
- Ensure that this policy is successfully implemented throughout the school.

- Review and update this policy periodically.
- Monitoring effectiveness of Computing across the school.
- Oversee the work of technicians.

PROFESSIONAL DEVELOPMENT

INSET 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 INSET needs and encourage them to attend relevant courses or plan whole staff INSET through staff meetings or in-service training days.

PLANNING AND DELIVERY

In the foundation stage Computing follows the Knowledge and Understanding of the World area of learning from the QCA document *Curriculum Guidance for the Foundation Stage*.

In Foundation 1 there is no specific time allocation for the subject, however children receive opportunities to find out about and identify the uses of everyday technology and use Computing and programmable toys to support their learning. There is regular planned access to computers where specific keyboard and mouse skills are taught. In addition to this, children in Foundation 2 have access to a computer suite which is used when appropriate to further enhance their skills.

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 Nottinghamshire Computing framework, 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 Whiteboards are used in all classrooms.

All classes have access to a tablet trolley, which can be booked to be used in classrooms at the teacher's discretion.

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

1. Communicating - producing, editing and sharing information and media.
2. Finding out - collecting, analysing and evaluating data.
3. Computing - models, simulations, control and programming
4. E-safety - keeping children safe when using a computer

PROGRESSION

Curriculum planning should ensure continuity and progression. 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.

DIFFERENTIATION

Differentiation should be achieved both through differentiated activities and through differentiation of intended outcomes. For example more able pupils should be encouraged to extend their Computing experiences either through use of more challenging software, or simply an alternative software package to provide a depth of experience, or by extending the task which has been set.

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, 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.

We ensure that all our pupils:

- Have equal access to Computing resources.
- Have equal opportunities to develop their Computing capabilities.
- Use software that is appropriate to their ability.

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 ensuring significantly higher achievements. Therefore, the opportunities to utilise Computing should be maximised.

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 the Nottinghamshire County Council. 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 Internet Explorer filters are set to an appropriate level on all network PCs and laptops.

Further information about Child protection within Computing can be found in the schools Internet 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 on line. 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 exists. We must ensure that they understand that Trolling 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 usually at the beginning of the academic year 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.

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.

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