New City Primary School Computing Policy 2019-20

Policy Creation and Review	
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Last Review Date	June 2019
Ratified by Governing Body	
Next Review Date	June 2020

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Introduction

The use of Computing is an integral part of the National Curriculum and is a key skill for everyday life. Computers, iPads, programmable robots, digital and video cameras are but a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At New City Primary School we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to become proficient in Computing.

Computing at New City

When planning and teaching computing at New City Primary School, we believe that it is an essential part of the curriculum; a subject that not only stands alone but is woven and should be an integral part of all learning. Computing, in general, is a significant part of everyone's daily life and children should be at the forefront of new technology, with a thirst for learning what is out there. Computing within schools can therefore provide a wealth of learning opportunities and transferrable skills explicitly within the Computing lesson and across other curriculum subjects.

Through the study of Computing, children will be able to develop a wide range of fundamental skills, knowledge and understanding that will actually equip them for the rest of their life. Computers and technology are such a part of everyday life that our children would be at a disadvantage would they not be exposed to a thorough and robust Computing curriculum. Children must be taught in the art form of 'Computational Thinking' in order to provide them essential knowledge that will enable them to participate effectively and safely in the digital world beyond our gates.

Aims:

In Key Stage 1 the children will learn to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. They will be taught to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. They will be shown how to use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as recognise common uses of information technology beyond school. They will be taught to 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. Each of these skills will be taught through exciting half termly units.

In Key Stage 2 the children will design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. They will use sequence, selection, and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and

programs. Children will be taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They will use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content. Children will be taught to select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals. They will use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Even our children in Early Years provision will be exposed to the understanding of internet safety as they explore the world around them and how technology is an everyday part of their learning and understanding of the world.

EYFS:

It is important in the Foundation Stage to give children 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 should feature Computing scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to explore using non-computer based resources such as metal detectors, controllable traffic lights and walkie-talkie sets. Recording devices can support children to develop their communication skills. This is particular useful with children who have English as an additional language.

KS1:

- 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.

KS2:

- 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.

Entitlement

The pupil's entitlement to Computing is based upon the Programmes of Study for Computing as defined in the 2016 National Curriculum. New City has designed a curriculum tailored to the needs and interests of the children in our school. We all have high aspirations for children in our school to achieve well and learn in depth. Opportunities for mastery have been planned for within every lesson and teachers are encouraged to stretch, challenge and motivate pupils to meet their potential.

The bespoke medium term plans highlight the following to ensure high standards and clear progression across units of work and year groups:

- Key objectives
- Outcomes for pupils
- Ambitious subject specific vocabulary
- Embedded mastery/mastery tasks
- Online safety links

Resources

In this school, pupils will have experience with networked PCs, iPads, laptops, printers, Bee-Bots, Pixies, data logging equipment, sensing equipment, calculators, digital media, interactive whiteboards, laptops and voting systems. They will also have experience with the Internet and a variety of software that allows teachers to provide for progression of skills, concepts and applications.

As an inclusive school, Computing is made accessible to children with Special Educational Needs, by providing them with suitable software and tasks, and with extra support in the use of software packages and peripherals available.

Assessment

The pupil's work in Computing is assessed continuously throughout the topics that are taught. Assessment for learning is used regularly in lessons to ensure that the teacher knows where to support and challenge. Children save their work in their own space on the server. This work is monitored by the computing subject lead on a half termly basis. Teacher assessments, including the end of year level achieved, are reported to parents in the annual reports, and assessments are passed on to the next class teacher. Pupils are actively encouraged to use Bug Club, Mathletics and Times Table Rockstars outside of school.

Management

The Computing Curriculum Leader and Senior Management are responsible for the implementation of this Policy; the management and repairs of Computing resources through School Based Curriculum Support, monitoring Computing standards of achievement and progression, and working with SLT to arrange appropriate INSETs for all members of staff where necessary. New City is committed to continuing the reliability of the network. Ben Roberts is currently employed as Computing Technician by the school to support with technical matters. The Class Teachers are responsible for the delivery of this policy and the care and security of the hardware and software. The school is committed to the ongoing resourcing of Computing equipment and software, in relation to the School Development Plan. The school is responsible for ensuring that copyright regulations are not infringed.

Internet Access and Online-safety

All pupils must have returned a signed consent form for them to use the internet. (Letters are available at the Reception desk. These are completed during the admission interview.)

Although Internet access within school is protected by the borough Firewall and Filtering systems as well as the school's own security system, the risks of Internet use are still present. We believe it is vital to teach Online-safety as part of the Computing curriculum. This is embedded throughout the lessons taught, and not addressed separately. Whole school workshops are also organised throughout the year to ensure that children are aware of how to stay safe online.

As part of safeguarding, concerns regarding online safety and cyber bullying are logged via the school's safeguarding monitoring. 100% of staff are trained and able to access this software. These incidents are then monitored and dealt with by the DSLs.

Copyright

New City Primary School has a responsibility to teach and uphold the laws and guidance on copyright. Images on the Internet are not freely available and we have a responsibility to teach

children how to check and use information and images appropriately. This understanding is embedded throughout the curriculum across the school.

Mathletics, Bug Club and the MLE

In recent years there has been a boom in the education opportunities that are available online. We have bought into the following to give pupils safe access to online educational opportunities outside of school. These are:

- London MLE
- Mathletics
- Bug Club
- LGfL MyUSO
- Espresso

All pupils have passwords that can be used to access these sites. Pupils have been shown how to use them and how to keep their passwords safe from others. The Computing Co-ordinator's role, alongside the technician, includes restricting the pupil's access to areas of the MLE that are aimed for them and this helps the pupils stay safe online. Staff are encouraged to use the MLE as a cross curricular tool to support.

Review

The policy will be reviewed annually with the aim of meeting any new developments and initiatives both nationally and locally.

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June 2019
Date to be reviewed: June 2020