<u>Keston CE Primary School Computing and ICT Policy</u>

Date: January 2020

The School's Christian Vision
To provide all our children with knowledge, perseverance and the imagination to develop their God given talents, living out Christian values in order to live happy, fulfilling and considerate lives. We uphold the right of every individual to learn, be valued and achieve their full academic potential. *In God's hands we love, learn and grow.*

The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Keston CE 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 use it effectively. The purpose of this policy is to state how the school intends to make this provision.

The School aims to:
- provide a relevant, challenging and enjoyable curriculum for ICT and computing for all pupils.
- meet the requirements of the national curriculum programmes of study for ICT and computing.
- use ICT and computing as a tool to enhance learning throughout the curriculum.
- to respond to new developments in technology.
- to equip pupils with the confidence and capability to use ICT and computing throughout their later life.
- to enhance learning in other areas of the curriculum using ICT and computing.
- to develop the understanding of how to use ICT and computing safely and responsibly.

The National Curriculum for Computing aims to ensure that all pupils:
- can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication
- 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.

The school believes that ICT and computing:
- gives pupils immediate access to a rich source of materials.
- can present information in new ways which help pupils understand access and use it more readily.
- can motivate and enthuse pupils.
- can help pupils to focus and concentrate.
- offers potential for effective group working.
- has the flexibility to meet the individual needs and abilities of each pupil.

Objectives

Early years
It is important in the foundation stage to give children a broad, play-based experience of ICT in a range of contexts, including outdoor play. ICT is not just about computers. Early years learning environments should feature ICT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or drive a remote-controlled toy. Outdoor exploration is an important aspect, supported by ICT toys such as metal detectors and sound recorders.

By the end of key stage 1 pupils should be taught to:
- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions
- write and test simple programs
- use logical reasoning to predict and computing the behaviour of simple programs
- organise, store, manipulate and retrieve data in a range of digital formats
- communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

By the end of key stage 2 pupils should be taught to:
- design and write 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; generate appropriate inputs and predicted outputs to test programs use logical reasoning to explain how a simple algorithm works 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
- describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Resources and access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible PC system by investing in resources that will effectively deliver the strands of the national curriculum and support the use of ICT and computing across the school.
- Every classroom has 3/4 networked computers, one of which is connected to an interactive whiteboard and is fully equipped with sound, DVD facilities and a visualiser.

- The Library has 2 networked computers, one of which is connected to an interactive whiteboard and the other which is used for the School's Library System. There are 3 LearnPads which are available for the children to use within the library.
- There is a computer and projector installed in the hall for use in assemblies, collective worship and during PE lessons.
- The ICT suite has 18 desktop computers and an interactive whiteboard. Each class has an allocated slot for teaching of specific ICT and computing skills in the ICT suite.
- Other ICT equipment (e.g. beebots and probots) is also stored in the ICT suite.
- The ICT suite is available for use throughout the school day as part of ICT and computing lessons and for cross curricular use. Pupils may use ICT and computing independently (as long as there is an adult present in the same room), in pairs, alongside a TA or in a group with a teacher.
- The school has an ICT technician who is in school one afternoon every month, any problems with the ICT equipment/network should be reported to the ICT Co-ordinator and if it cannot be solved it will then be forwarded to the technician.
- The whole school has wireless capability and the wireless passcode is only given to members of staff on a need to know basis. Children and parents are not able to access the school wireless system on their own devices.
- The pupils have access to a wide range of software and online learning resources which support the computing and wider curriculum. To ensure that copyright laws are adhered to, staff, pupils and parents are not permitted to run software brought in from outside school on school machines.

Planning

The school uses the 2Simple Computing Scheme of Work which is linked to PurpleMash and supplements this as necessary with Switched on Computing. Both schemes follow the computing National Curriculum and will allow clear progression across the year groups.
 We teach ICT and computing to all children, whatever their ability. In order to ensure all children can access the curriculum to the best of their ability it may sometimes be necessary to adapt the delivery of the ICT and computing session.
After school computer clubs are available to Upper KS1 and KS2 and these are provided by the outside agency Pixel Gang and focuses on developing coding skills.

Entitlement to the ICT curriculum

All children should have access to the use of ICT regardless of gender, race, cultural background or physical or sensory disability. Where use of a school computer proves difficult for a child because of a disability, the school will endeavour to provide specialist equipment and software to enable access, e.g. use of laptops and specialised software. Children with learning difficulties can also be given greater access to the whole curriculum through the use of ICT e.g. lower case keyboards. Their motivation can be heightened and they are able to improve the accuracy and presentation of their work. This in turn can raise self-esteem.

The 2Simple Scheme of encourages progression and ensures that the children will be provided with as many opportunities as possible to acquire the skills and abilities necessary to make this progression.

Data Protection Legislation

As a result of the Trust's statutory responsibility, the Trust will receive personal data, some of which will be sensitive personal data. The Trust processes personal data in accordance with the data protection principles embodied in the General Data Protection Regulations (GDPR) and the Data Protection Act 2018 (DPA). The Trust complies with the requirements of the data protection legislation as detailed in the Trust data protection Policy.

All staff are aware of the principles of data protection and will not process personal data unless necessary. The Trust safeguards the personal data it collects through the operation of the Trust's data protection policy and processes and the IT policy. In addition, the Trust and the relevant academy has taken steps to ensure that all its contracts that process data have the GDPR compliant provisions.

Health and Safety

- Children should not be responsible for moving heavy equipment around the school. Children are not permitted to load software onto the computers/network or reconfigure any cabling associated with computing equipment.
- Food and drink should not be consumed near ICT equipment.
- It is the responsibility of staff to ensure that classroom ICT equipment is stored securely and that their class or themselves leave the ICT Suite clean and tidy after use. Adult supervision is required in the ICT suite at all times.
- Staff should ensure that the children are seated at the computers comfortably and be aware of the dangers of continuous use (e.g. eye/wrist strain etc).
- An adult should always supervise children when they are accessing information via the Internet. The service provider does filter information but staff are ultimately responsible for information accessed by pupils.
- The school currently use LGfL web filtering which blocks offensive and inappropriate sites. Any sites which the children/staff find which they deem to be unsuitable should be reported to the ICT co-ordinator and will be immediately blocked.

Assessment and record keeping

On-going formative assessment is an integral part of good practice. Its main purpose is to enable the teacher to match work to the abilities and needs of the children and ensure progression in learning.
ICT capability is monitored during ICT lessons, looking at skills acquired and the work the children have produced. Other opportunities for assessment will arise from cross-curricular work.

Staff training needs will be met by:

- auditing staff skills and confidence in the use of ICT regularly;
- arranging training for individuals as required;
- the ICT Co-ordinator will attend courses when applicable and support and train staff as far as possible.
- review and evaluation procedures

As the everyday use of ICT is developing rapidly, with new technology being produced all the time, this policy will be reviewed and revised on a yearly basis. The ICT Co-ordinator will liase regularly with staff, both at staff meetings and informally, to monitor the effectiveness of the policy and the Scheme of Work. This policy should be read in conjunction with the E-Safety guidelines, Internet Access and Acceptable Usage Policy and the Social Media and Networking Policy in order to allow the safe and efficient use of the Internet for both staff and pupils in an educational context.

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