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## POLICY STATEMENT

## COMPUTING

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| APPROVED BY GOVERNORS | March 2022 |
| TO BE REVIEWED BY     | March 2025 |

## **FAIRLANDS PRIMARY SCHOOL**

### **COMPUTING POLICY**

#### **INTRODUCTION**

We believe that skills across Computing are fundamental to children's learning and should be incorporated into all areas of the curriculum wherever possible. It is recognised that we have a responsibility to encourage digital literacy in all pupils in preparation for their future.

Computing require children to be able to interact fully with computers, laptops, tablets and a growing number of other devices, programs and software to fully support their learning in a number of contexts. It is recognised that the level of expectation on children's capabilities for using new technologies is rising particularly within the new National Curriculum for Computing with its strong emphasis on computer science and computer programming skills.

#### **ROLES AND RESPONSIBILITIES**

##### **MANAGEMENT OF ICT**

The subject leader for new technologies is responsible for reviewing and updating the school's policies relating to new technologies, monitoring standards of achievement and progression, the co-ordination of assessment and the direction and supervision of the school's IT technician who is contracted in from InTerm IT Ltd. The IT technician role involves the maintenance of the school network, the management of the school's wireless network, the management of the school's hardware and software and the co-ordination of repairs, alongside and in-line with the headteacher. The subject leader for Computing is also responsible for the management of teaching and learning of computing using planning and work scrutinies, pupil interviews, lesson observations and reviews of assessments and levelling. A moderated portfolio of work will be generated and updated by staff to be reviewed by the subject leads.

##### **OTHERS IN THE SCHOOL**

The class teacher is responsible for the delivery of the scheme of work for computing and of all policies relating to new technologies including e-safety. Class teachers are also responsible for the care and security of the software and hardware in their classroom and other shared resources such as the laptop and I-Pad trolleys. Phase leaders are responsible for the laptop and I-Pad trolleys within their phase with any misuse or losses being taken from phase budgets.

E-safety is the collective responsibility of all staff within the school environment including support staff, midday supervisors, site managers and admin staff. Staff should uphold the schools e-safety policy at all times. Please see this policy for further guidance.

The school is collectively responsible for ensuring that copyright regulations are not infringed.

#### **AIMS**

The aims of new technologies are:

- to promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion;
- to promote confidence and competence with devices and programs, including those that are unfamiliar to them, evaluating these analytically to solve problems;
- to use new technologies to enhance learning across the curriculum;

- to encourage children to choose and use appropriate applications with confidence and a sense of achievement;
- to develop practical skills in the use of technologies and to be able to apply these skills to the solving of relevant and worthwhile problems including the understanding and application of the fundamental principles and concepts of computer science;
- to understand the capabilities and limitations of technologies;
- to understand the implications, risks and consequences of using new technologies;
- to understand the importance of new technologies in everyday life;
- to analyse problems in computational terms, and have repeated practical experiences of writing computer programs to solve such problems;
- to be able to begin to discuss different hardware and software and its purpose for tasks with the aim of digital literacy.

## **TEACHING AND LEARNING**

The school uses a variety of teaching and learning styles during computing lessons as a discrete subject alongside the goal of embedding the use of new technologies across the curriculum where possible. Computing is also included using new technologies in topic work, literacy and numeracy lessons. New technologies are also deployed within child-initiated learning times where this is appropriate to that phase. Our principal aim is to develop children's knowledge, skills and understanding within new technologies. Computing lessons involve a combination of whole class, group and individual teaching. Children also receive opportunities to operate new technologies independently. Opportunities within this time allow children to model and develop the skills learnt through teaching whilst working independently.

Children have a one-hour Computing lesson taught as a discrete subject once a week as an absolute minimum. Many children will have more opportunities to access new technologies through topic work, literacy and numeracy lessons or independent learning times. Computing is taught using a skills-based curriculum developed by the NCCE designed to evolve to embrace new technologies and practices and meet statutory changes to the Computing national curriculum 2014 (see appendix 1). There is the relevant focus on computer science, programming and e-safety to meet national standards outlined within the new curriculum.

In all classes, there are children of differing abilities relating to Computing. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies –e.g. through differentiated group work, or by organising the children to work in pairs on open-ended problems or games. Teaching Assistants are sometimes used to support children with their learning.

## **INCLUSION**

All pupils should develop positive attitudes towards Computing; they should develop an understanding of the potential of new technologies and show confidence and enjoyment in its use.

Priority will be given to ensuring equality of access and quality of experience for all pupils according to need irrespective of race, gender, disability, age and class. Those who are most proficient with new technologies will be encouraged to share their expertise and confidence. These children should be recorded on the schools gifted and talented register.

Pupils who have trouble with mastering new technologies will have work differentiated to their needs and will be supported where necessary.

Consideration will be given to the most appropriate input device for all pupils but especially those with special educational needs.

## **COMPUTING CURRICULUM PLANNING**

Computing is viewed as a core subject at Fairlands. We follow a skills-based curriculum developed by the National Centre for Computing Education (NCCE). The scheme of work is based on the latest pedagogical research and teacher feedback. This curriculum is designed to provide children with meaningful and inspiring contexts for learning and to meet statutory changes to the national curriculum 2014 (see appendix 1). The progression of skills taught is organised into the following threads, Programming, Data and Information, Information Technology, Digital Literacy & Creating Media and Online Safety.

Computing is planned for using the scheme of work developed by the NCCE. The content of the scheme of work is broken down into five strands; Programming, Data and Information, Information Technology, Digital Literacy & Creating Media and Online Safety. Each year group completes six modules per year, which develop the skills taught in previous years. Computing skills are revisited regularly and applied to a range of contexts which enables the children to embed their understanding over time. Teachers use the plans as a basis for their lessons and then adapt to ensure that lessons meet the needs of the learners in their class. Staff consider how computing can be planned and incorporated into all subjects in a cross curricular way.

## **THE DEVELOPMENT OF COMPUTING IN THE FOUNDATION STAGE**

We believe that through the development of careful planning and resourcing, appropriate use of new technologies within a play-centred environment can promote purposeful play and exploration, as well as opportunities for speaking and listening, turn taking, creativity and problem solving.

Computing objectives for the EYFS are displayed using potential learning cards based around five themes; Finding Out, Images and Light, Toys and Machines, making Marks and Exploring Sounds.

There is a New Technologies area within both Nursery and Reception available for all children throughout the Foundation Stage to use within their small group learning time and their independent learning time. These areas include SMART tables, 12 I-Pads, VTech Laptops (to develop mouse and keyboard skills in a child friendly way), cameras, recording equipment, sound recording equipment, remote control devices, devices to communicate, devices to explore light and dark and programmable devices.

SMART boards are installed in all classrooms within the EYFS and are used across the curriculum and throughout independent learning times.

Defunct keyboards are available in the writing areas of the Foundation Stage for children to practise and explore inputting letters on a computer keyboard.

Lap-tops and I-Pads are used within small group work initially, extending to independent learning times to enable the modelling of appropriate use before children can explore these independently.

Children's work with Computing is celebrated through displays within the New Technologies area of learning and within their individual learning journals.

## **ASSESSMENT AND RECORDING**

We make regular formative assessments of individual's attainment which we use to inform our planning. These formative assessments are closely matched to our progression of skills, which is aligned with the

NCCE computing curriculum. Teachers record formative assessments and observations on O-Track, which informs termly summative assessments of pupil's attainment and progress.

Each unit of learning includes guided and independent tasks whereby pupils are given the opportunity to demonstrate their understanding of the objectives learnt throughout that unit. These activities support development of computing capability and provide an outcome which can be assessed. Teachers will be able to assess against the objectives in OTrack at least termly in order to assess attainment and progress in all pupils

Children's attainment in computing throughout the EYFS will be monitored and recorded using observational assessment within the child's learning journal. Their attainment will be recorded and reported in line with the Technology strand of the Understanding of the World Early Learning Goal in line with Statutory Guidance.

## **CPD**

The need for further training is identified through performance management discussions and by the subject leader through lesson observations or other means. Training needs are also closely linked to the School Improvement Plan.

## **RESOURCES**

Each phase has access to a class set of laptops. These laptops are timetabled so that each class has access to them for one lesson per week. In addition to this, laptops can be booked to be used to support cross-curricular learning.

Each year group has access to 12/13 iPads which are used to support both computing lessons and a range of other subjects. The iPads are regularly updated with educational apps to enhance the children's learning.

Each classroom has a Smart Board installed which is used regularly to support learning.

We have a range of programming resources to support the computing curriculum.

Computing resources are stored centrally for use by all staff and children and include cameras, video cameras, programmable devices and recordable devices.

Children in the EYFS have access to Smart Boards, a laptop trolley, 25 iPads, a range of coding equipment such as interactive coding robots. These resources are also available for use by other year groups as required.

Resources are audited and organised regularly to ensure equal access to ICT across the school.

## **MONITORING**

Monitoring of the standards of children's work and of the quality of teaching in computing is the responsibility of the subject leader for Computing. The work of the subject leader for Computing also involves supporting colleagues in the teaching of computing, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. Staff support the subject leader in this role through a termly moderation of computing whereby a range of children's work is moderated from all year groups.

The headteacher allocates management time to the subject leader for Computing so that they can carry out relevant management tasks relating to the subject.

## **HEALTH AND SAFETY**

Computing equipment should be treated with the same care as any other electrical equipment.

Pupils should be encouraged from the earliest age to consider and adjust their posture when using the keyboard to avoid strain to the arms and back.

Staff should consult the SENCO regarding any implications of the use of new technologies for known medical conditions e.g epilepsy, visual impairment.

Staff using older style long throw digital projectors should be made aware of the safety guidelines and follow the safety guidelines in them.

## **ACCESS AND PRIVACY (see also the Online Safety Policy)**

The school's computers should not be used at any time for downloading, copying or storing illicit or offensive material, nor should video, music or other files which take up a large amount of space be stored on our servers. Users wishing to download and copy large files should discuss it with the subject leader for new technologies or the headteacher.

No user should attempt at any time to install any software of any kind onto the school's network or onto any workstation connected to it, including screensavers. If a member of staff wishes to have software installed the agreement of the subject leader for new technologies should first be sought, the licence checked and the relevant media handed to the IT technician to arrange for installation.

All users of the network must be aware that their user areas and individual files may on occasion be accessed by the subject leader for new technologies and/or the IT technician and files which contravene any part of this policy may be removed.

Use of any of the school's new technology devices or software should be in line with this policy and the rules laid out in the school's Acceptable Internet Use Policy.

## **HOME SCHOOL LINKS**

The school website provides a home/school link for parents and carers and is managed and monitored by the headteacher. Staff and pupils add blogs to the main school website page. A calendar is available for parents to access showing all necessary school dates. Copies of all home/school correspondents are also stored on the website available as downloads for parents as are the school prospectus and any relevant policies.

School blogs should be updated at least weekly to help to keep parents informed of current practice within the school. Class teachers are responsible for managing the content of the blog for their class. The headteacher maintains overall responsibility for all blogs.

Online learning platforms provide opportunities for further links between home and school – remote learning/homework.

## **REVIEW**

The local governing body will review this policy in line with its annual cycle of review.