Computing Policy
Parkfield Community School

Introduction

The use of computing technology is an integral part of the national curriculum and is a key skill for everyday life in a rapidly changing world. Various forms of computing technology, including 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 Parkfield Community School, we recognise that pupils are entitled to a high quality, structured and progressive approach to the learning of the skills needed to enable them to use computers effectively. We also recognise the importance of utilising a range of quality hardware and software across the curriculum to facilitate this. The purpose of this policy is to state how the school intends to make this provision.

Rationale – Why Computing?

Computing is used to improve the teaching and learning experience at our school. It is not enough just to have resources, such as iPads, interactive whiteboards or digital cameras. Those resources have to be used effectively and imaginatively to have the maximum impact upon teaching and learning. This allows it to meet the needs and abilities of each and every pupil. **Computing improves access to the curriculum in a multitude of ways and motivates learners.**

The School's Aims

The school aims are to:
- provide a relevant, challenging and enjoyable curriculum for computing for all pupils;
- meet the requirements of the national curriculum programmes of study for computing;
- use computing as a tool to extend and enhance learning throughout the curriculum;
- respond to new developments in technology;
- allow children to experience using a wide range of equipment;
- equip pupils with the confidence and capability to use computing throughout their later life;
- develop the understanding of how to use computing equipment and software safely and responsibly;
- educate children about the benefits and dangers of using the internet.

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.

What roles and responsibilities do staff members have?

The Subject Leader for Computing

It is the responsibility of the Subject Leader for Computing to:
- ensure that the computing policy is implemented consistently throughout the school;
- maintain and revise (where necessary) a long term curriculum map for this subject;
- organise resources to support the computing policy and its priorities;
- help ensure the safety of equipment;
- co-ordinate the purchase and maintenance of suitable, quality equipment;
- assist curriculum leaders, year group leaders, and other teachers, to incorporate computing into their teaching/areas of responsibility;
- arrange suitable in-service support;
- lead staff training sessions;
- provide support and advice;
- monitor and review computing practice and provision;
- keep up-to-date on the use of computing in the curriculum;
- maintain and update the school website;
- promote e-safety within the school;
- help staff to use assessment to inform future planning;
- ensure that a record is kept of e-safety issues.

The Network Manager

It is the responsibility of the Network Manager to:
- ensure value for money when costing software, hardware and disposables such as printer cartridges;
- co-ordinate with outside firms to install new equipment;
- maintain and improve (where possible) the school network;
- diagnose and repair (where possible) faulty equipment;
- troubleshoot school software issues;
- work with the computing leader to provide technical advice and support;
- maintain an audit list of all computing equipment in the school;
- maintain an up to date username and password list for computer hardware and software that the school uses;
- promote e-safety within the school;
- ensure security on school computers and the network is up to date;
- help to ensure that the school's website remains up to date;
- update the content of computing display screens around the school;
- ensure that appropriate and correct numbers of licenses are kept for all software on the school network;
- ensure the disposal of all obsolete computing equipment in a way that confirms to local and national regulations.

The Head of School

It is the responsibility of the Head of School to:
- facilitate the work of the computing leader;
- ensure the delivery of the National Curriculum in this area;
- maintain a safe working environment for staff and pupils;
- consider the development of this subject within the broader need of the school in the light of the School Development Plan;
- promote e-safety within the school;
- provide appropriate support and resources.

Other Subject Leaders

It is the responsibility of Subject Leaders to:
- facilitate the work of the computing leader within subject/s;
- ensure that computers are utilised effectively within their subject/s;
- be aware of computing developments that may enhance teaching and learning within their subject/s;
- monitor and develop the assessment of computing within their subject/s.

Class Teachers

It is the responsibility of class teachers to:
- deliver the relevant National Curriculum objectives for computing;
- follow the relevant schemes of work, planning overviews and guidelines for this subject;
- ensure regular computing access for all pupils within their class, across the curriculum;
- be aware of their training needs in delivering the computing curriculum using available technology, and to discuss these with the computing leader;
- assess pupils progress and attainment within this subject following the schools recording and reporting formats;
- promote respect for all computing equipment used by their class;
- consistently promote e-safety within their classroom and to report any issues to the relevant person.

Governors

It is the responsibility of the governors to:
- ensure that the school fulfills its statutory obligations in this area of the curriculum;
- promote e-safety within the school;
- monitor the school's policy in this area of the curriculum;
- ensure the safe and responsible use of computing equipment and the internet in the school.

The Curriculum

Each year group (apart from the foundation stage, which has a small set of iPads) has one timetabled afternoon in the school's thirty one computer, computer suite to deliver the computing curriculum and for making cross curricular links. How this time is divided between the year groups is decided by the year leader. In addition to this:

- year 6 have access to individual iPads;
- all classes can book access to a class set of iPads;
- years 3 and 4 have access to computer stations outside of their classrooms;
- all year groups also have access to six computers during their library sessions;
- all year groups attend sessions twice every term in the Young Engineers' Academy, and can book to use the room with 20 computers when it is free.

Parkfield has a detailed computing medium term plan in place, which ensures coverage of the key aspects of the new National Curriculum and makes clear links to the topics being studied in Parkfield's thematic approach curriculum.

At Parkfield, the Computing Curriculum is split into three areas: Computer Science, Information Technology and Digital Literacy.

The Computer Science aspect of the curriculum teaches computational thinking. Children should be taught to solve problems using computational terms. This area of the curriculum will involve coding and data representation, but computational thinking should not exclusively be taught using a computer; many topics are primarily introduced using unplugged activities.

Information Technology involves using various software and a range of devices, including the internet, to accomplish goals and manipulate digital content. This strand is the closest to the old curriculum, and should be expanded to other subjects so that IT is used in a cross curricular way.

Teaching Digital Literacy ensures that all children are able to use technology safely and respectfully. In this strand, children learn about how computing relates to their wider world and how to evaluate software and technologies critically.

E-safety is taught in Parkfield both discretely, through PD lessons and assemblies, and throughout the computing curriculum. E-safety should be referred to constantly in our increasingly digital world, and each computing unit includes a minimum requirement of e-safety topics to be referred to throughout that unit.

Year 1	Heroes and Villains **IT** Sc: Animals IT Sound- storytelling IT Images and text- all about me (Word) IT Storyboard- pictures	Toys- Past and Present **IT DL** Sc: Seasons/Plants IT/DL Research toys IT Data- textease sorting toys IT Graphs 1	Fabulous Food **CS** Sc: Everyday materials CS Jam sandwich robot CS Espresso 1 CS Roamers
Year 2	Dinosaurs **IT DL** Sc: Living/non-living/plants IT Animation 1 IT/DL VLE- moodle intro IT Sound 2 IT Images and text 2-	Homes- Past, present and future **CS** Sc: Materials/forces CS Computing 1- Real life variables CS Espresso 2 CS Romo programming 1	Animal Kingdoms **IT CS DL** Sc:Animals/habitats CS/IT Datalogging 1- Local habitats IT Graphs 2 IT/DL Research 1 IT Presenting 1 –Animal encyclopaedia outcome.
Year 3	Mapping Birmingham **IT CS DL** Sc: Rocks/light CS/IT Datalogging 2- light. CS Romo 2 IT/DL Google Maps- local area IT Textease mapping- local area	Roald Dahl **IT CS DL** Sc: Forces/Magnets IT/DL Roald Dahl factsheet- research and presentation IT Sound 3- storytelling CS Scratch 1	Romans **IT DL** Sc: Plants/animals IT Data 2- textease plants/animal diagram IT Kar2ouche- Romans IT/DL Research 2 IT Presenting 2- Roman presentation outcome.

Year 4	Ancient Greece- Percy Jackson **IT CS** Sc: Sound/electricity IT Animation 2 CS Romo 3	Passport to Europe **IT CS DL** Sc: Habitats/animals IT/DL Website design- Europe IT/CS Spreadsheet 1	Castles/Medieval England **IT CS DL** Sc: States of matter CS Scratch 2 IT/CS/DL Water cycle presentation- scratch/powerpoint/textease
Year 5	Terrible Tudors **IT CS** Sc: Life cycles/human body IT/CS Datalogging 3- heart rate IT Strip Design IT Movie making 1- interview	Seven Cities of Gold **IT CS DL** Sc: Light/earth and space CS Scratch 3- program a clock IT/DL Sound 4- podcast	What's in the News? **IT CS** Sc: Forces and magnetism IT/CS Spreadsheets 2 IT Moviemaking 2- news report
Year 6	Harry Potter **IT CS** Sc: Properties of materials IT Animation 3 CS Scratch 4 - game	Doctor Who- WW2 **IT CS DL** Sc: Sound/electricity IT/CS/DL History of computing- Alan Turing, Tommy Flowers. CS Dismantling PCs. CS Data transfer- unplugged code activity IT Prezi/PowerPoint	Beans and Bananas **IT CS** Sc: Living things/evolution IT Video Editing IT/CS Spreadsheets 3

These three areas are developed across the Curriculum, from Year 1 to Year 6, as seen above.

Foundation Stage

The positive and noticeable benefits of young children using a computer are similar to those of the older pupils. Thinking and problem solving skills are developed through a structured focus, which is stimulating and linked to other activities. However, computing in the Foundation Stage should also reflect the use of technology in everyday life and be included in opportunities for role play.

The computing leader works with the Early Years Leader to ensure that resources are appropriate to the needs of the pupils, in order to enhance life skills and support the areas of learning.

Cross Curricular Use of Computing

Technology is a powerful tool, which can be used to enhance teaching and learning across the curriculum, challenging gifted and talented learners while supporting those with learning difficulties. Pupils will be taught and given opportunities to consolidate skills through highly motivating cross-curricular activities.

When planning lessons involving the use of computing, teachers identify activities in which the emphasis is on both the development of computing skills along with those within the subject in which computing is used.

Resources Available

As well as computers, the following equipment is also available to us to use to support the teaching of computing as a discrete subject or across the curriculum.
- Interactive whiteboards;
- Espresso (web based software);
- Floor robots (Roamers, Bee Bots and Romos);
- Internet;
- iPads (year group sets for Year 5 plus a class set of 30 available to book);
- Chromebooks (year group set for Year 6);
- Pupil digital cameras;
- Visualisers;
- Two class sets of Activote systems;
- 10 Nintendo DS';
- 30 Active Slates for computer art work;
- Dataloggers;
- TV green screen studio;

- School's radio station.

Teachers are encouraged to identify new software and hardware that they think beneficial to delivering the computing and wider curriculum. All prospective computing purchases must however be cleared by the computing subject leader (with support from the network manager) in order that:

- compatibility with existing equipment is ensured;
- equipment/software is not duplicated unnecessarily;
- a wider user group might be considered;
- alternative in-house equipment/software might be considered;
- value for money is ensured.

No contracts for purchase or inspection copies may be ordered until clearance has been given.

Teaching E-Safety

E-safety is of prime importance when teaching children to use computers, e-mails and the internet. E-safety should be taught by class teachers as part of the computing curriculum where it is deemed appropriate. It should also be taught and modelled through the use of Moodle.

Discrete e-safety lessons are timetabled to be taught, and resources are provided for this, during PPA sessions. These sessions usually take place at the start of each term.

Suitable websites are used to support the teaching of e-safety, such as the cybercafé (www.thinkuknow.co.uk). In addition, there is a CEOP button on the school website which children are made aware of should they need to report anything making them feel uncomfortable online.

The computing lead is a trained CEOP ambassador and available to support any issues in the teaching of this part of the curriculum.

How is Achievement Celebrated Within Computing?

To celebrate achievement and progress in computing we:
- give verbal praise to the children;
- provide stars, stickers and house points;
- use praise pads/post cards home to inform parents of good effort and work;
- display learning in the classroom/corridor and on display boards;
- display learning on the school website;
- collect examples of learning from each year group in computing folders.

Assessment, Evaluation and Reviewing

At the end of each term teachers will indicate the competence of children within their class against key computing objectives. Judgements for these will be made through a combination of formal and informal assessments by the class teacher and their teaching assistant/s and recorded on OTrack.

Examples of learning produced during lessons involving computing are printed off and displayed within class books. These are monitored by the subject leader.

In KS2, pupil's views about computing, along with a self-assessment of their abilities, are recorded annually through the use of an online questionnaire. This provides children with the opportunity to feedback about their performance, enjoyment and things they would like to see improved in terms of computing provision across the school. The results of these are analysed and fed back to leadership and class teachers. Children are also interviewed individually by the subject leader.

Although at present, time has not been allocated to observe individual ICT lessons, it is envisaged that in the future this will take place in some form.

Long term plans for computing will be evaluated and refined where necessary annually.

Reporting to Parents

Every year there are two parents' days/evenings, which allow for the reporting of all curriculum subjects. In addition to this parents also receive an annual report that provides a specific comment about their child's attainment and progress in computing. Computing outcomes should also form part of each year group's termly showcase.

Equal Opportunities

All children, regardless of gender, ethnicity and ability, will have equal access to the computing curriculum and will have the opportunity to make the most of their own potential, within this field. We also check software and documentation to ensure that gender and ethnicity are reflected in a balanced way without stereotyping.

We aim to enable children with Special Educational Needs to have access to appropriate software/hardware and where appropriate to record this on IEP's. Work for these children should be differentiated accordingly with additional support of the class teacher, a teacher assistant and/or another child where necessary.

Safe Internet Usage

All internet traffic entering the school is filtered by the Birmingham Grid for Learning (BGfL). This ensures that staff and children are unable to access inappropriate materials. In the event that inappropriate materials elude this filtering system the website/s encountered should be reported to either the Computing Subject Leader or Network Manager as soon as possible. They will then alert the BGfL who will block the offending website/s.

A program called Policy Central is also used by Parkfield Community School to safeguard staff and children. This program picks up on keywords typed online by staff and teachers. This then alerts the Head Teacher via an email that these words have been used. The Head Teacher will then act on this appropriately.

All staff at Parkfield have signed an acceptable use policy for computing.

The school uses SOPHUS antivirus software to detect and neutralise any viruses accidently downloaded. The computing technician is then automatically informed by this program.

Staff Development

The Computing Subject Leader will assess and address staff training needs as part of the annual development plan process, performance management targets or in response to individual needs, new development/software and requests throughout the year.

Individual teachers should attempt to continually develop their own skills and knowledge, as well as identifying their own needs and communicating these to the subject leader. All staff have been provided with a school laptop to assist in this process.

Health and Safety

Before being allowed to work in the computer suite all children are made aware of the arrangements if they hear the fire alarm. A copy of the evacuation route and location of fire extinguishers can be found on the wall of the suite. Portable electrical equipment will be checked annually along with desktop computers under the Electricity at Work Regulation 1989.

Children will also be made aware of the correct way to sit when using the computer and the need to take regular breaks if they are to spend any length of time on computers.

The school also has a 'Responsible Use of The Internet ' policy document, which all staff should sign before using computers in school.

The Health and Safety at Work Act (1 January 1993), European Directive deals with requirements for computer positioning and quality of screens. This directive is followed by all administration staff. Whilst this legislation only applies to people at work we seek to provide conditions which meet these requirements for all users. In particular, staff should be aware that 40 minutes is the maximum time that any child should spend in front of a computer in any one session without a break. Staff should also ensure there is no reflection on the monitor (i.e. sunlight) and that monitors are as close to the eye level of their users as possible.

Before using computing equipment, the children must be shown how to use it safely by the class teacher.

When entering an environment containing computing equipment the children should follow the school rules and should be kept in a well-behaved manner by the class teacher. Children should never attempt to fix any faulty computing equipment themselves

Although the computing equipment at Parkfield is checked on a regular basis by the school's computing team, issues may still occur. All hardware and software issues encountered by staff are to be referred to the school's computing team by email.

School Data Protection and Access to it.

See School Data Protection Policy and School Freedom of Information Policies.

Disposal of Redundant Computing Equipment

The school will dispose of redundant computing equipment responsibly by selling, offering to charities, local educational establishments (including local mosques) or disposing of safely and appropriately in accordance with the Waste Electrical and Electronic Equipment directive (WEEE).

Other relevant policies

- E-safety policy

Policy reviewed by :
Helena. Brzeski
(Computing Subject Leader)

Date Policy Reviewed
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