



Brimington Manor Infant and Nursery School

Computing Policy

Brimington Manor Infant and Nursery School is committed to developing computing throughout the School organisation and to developing the skills and knowledge of both staff and students. Computing technology is used by students to assist their work and learning, by staff as a support to their teaching and administrative work and by administration staff to provide effective and efficient support for School systems and procedures.

Purpose of Study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. 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.

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation

- 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.

Computing - ADMINISTRATION

Computers will be used wherever possible to assist staff in their roles and responsibilities, to provide data as appropriate and to assist in the management of School systems, e.g. finance, attendance, performance monitoring.

The School Administration Manager, in conjunction with the Headteacher and the Computing Co-ordinator will be responsible for all aspects of this administration.

Computing - CURRICULUM

Computing technology will be used wherever possible to assist staff and students in their teaching and learning and the Computing Co-ordinator (in conjunction with other key staff) will be responsible for the co-ordination of computing across the curriculum, in their teaching. The staff also understands that computing skills can be taught in other ways, not always including the use of computers or other technology.

- Each classroom (including the Early Years room) is equipped with 4 main computers, which children can use throughout the week to practise the skills taught. Computers are used in most lessons in all stages to support learning across the curriculum.
- Each KS1 classroom also has a 'visualiser' which is used in many different ways to support teaching and learning across the curriculum. The children enjoy showing their work on it and using it, so it can also be motivational.
- The school also has a chargeable laptop trolley that contains 6 laptops. This is shared equally in KS1. It means COMPUTING skills can be taught to small groups and laptops can be used to support learning in other areas of the curriculum.
- Problems with machines do occur and can be minimised if staff and pupils take care of the resource, use careful time management and planning. Those problems requiring more specialised intervention need to be identified immediately to the technician via the Computing Co-ordinator, in order that help can be given and the operation of the resource can be managed effectively.

The school uses the new National Curriculum for Computing and the school's own unique skills based curriculum, as the basis for its curriculum planning. At our school we view computing as an integral part of teaching and learning which is infused throughout the whole curriculum. The class teacher is responsible for writing the medium-term plans with the objectives of each lesson. The class teacher keeps these plans and s/he and the subject co-ordinator often discuss them on an informal basis. The staff are aware that in KS1, children are now expected to:

- 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.

Early Years

We teach computing in Early Years as an integral part of the topic work covered during the year. As the reception class is included in this, we relate the computing aspects of the children's work to the objectives set out in the Early Years Foundation Stage documentation which underpin the curriculum planning for children aged from birth to five. The children have the opportunity to use the computers, interactive whiteboards, a digital camera, movie makers, tape recorders, remote control toys and bee bots. Then, during the year, they gain confidence and start using the computer to find out information and to communicate in a variety of ways.

Computing and Inclusion

At our school we teach computing to all children, whatever their ability and individual needs. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this. Pupils who are considered more able, may be extended through the use of programs that offer further challenge and opportunities for investigation e.g. mind mapping software and image editing kits. For further details see separate policies: Special Educational Needs; Disability Non-Discrimination and Access; English as an Additional Language (EAL).

Assessment against the new National Curriculum and our own key skills curriculum assessment criteria, allows us to consider each child's attainment and progress. This ensures that our teaching is matched to the child's needs.

Intervention through School Action and School Action Plus will lead to the creation of an Individual Education Plan (IEP) for children with special educational needs. The IEP may include, as appropriate, specific targets relating to computing. In some instances the use of computing has a considerable impact on the quality of work that children produce, by increasing their confidence and motivation.

Assessment for learning

Teachers will assess children's work in computing by making informal judgements during lessons. On completion of a piece of work, the teacher assesses the work, and uses this assessment to plan for future learning. Mainly verbal feedback is given to the child to help guide his/her progress. Older children are encouraged to make judgements about how they can improve their own work. Evaluations may include the children finding a way to debug something which has not

worked this time. This ensures that the children are critical of their work and can find a way to solve their problems, as they would in the wider world.

Teaching and learning style

We recognise that all classes have children with a wide range of computing abilities. This is especially true when some children have access to computing equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways:

- setting tasks which are open-ended and can have a variety of responses;
- setting problem solving tasks where children have to use previous knowledge and trial and error to find a solution;
- setting tasks of increasing difficulty (not all children complete all tasks);
- grouping children by ability in the room, and setting different tasks for each ability group;
- providing mixed ability pairs or groups to work in;
- providing resources of different complexity that are matched to the ability of the child;
- using classroom assistants to support the work of individual children or groups of children.

Resources

Our school has the appropriate computer-to-pupil ratio, and broadband Internet access. Most software is already installed on PCs. Some software is installed only on laptops connected to the interactive whiteboards. All computers are networked to a central server and curriculum hub. Each classroom has a colour printer and digital camera to enhance the children's education and to allow staff to make efficient use of such equipment to enhance their own professional activities. Each teacher has access to a 'visualiser' and speakers. Headphones are available for classroom computers.

We employ a technician to keep our equipment in good working order. Members of staff report faults to our ICT technician who attends to these problems. The technician will also set up new equipment, and install software and peripherals. The technician is also responsible for backing up the network at least once every term and for cleaning the filters on the digital projectors once every term.

Along with desktop and laptop computers, school has an extensive amount of other hardware and software (see separate Inventory of all school Software/ Hardware). Quite a lot of software is generic, and can therefore be used in several curriculum areas and key stages.

Equipment such as laptop computers are encouraged to be taken offsite for use by staff in accordance with the Acceptable Use Statement and Internet Access Policy, provided that staff have signed a disclaimer accepting full responsibility for the equipment in their care, and that the equipment is fully insured from the moment it leaves the school premises. Equipment used in conjunction with a school-approved excursion does not require the signing of such a disclaimer. Any costs generated by the user at home, such as phone bills etc. are the responsibility of the user.

SOFTWARE AND LICENSING

- Software used on school computing resources must solely be that which has been purchased with an accompanying individual or site licence. This means that the software is licensed for use (either unlimited or limited to a number of machines at any one time) on the School site only.
- Any software purchases should firstly be discussed with the Computing Co-ordinator and Headteacher. When the software arrives in School it is registered centrally with the School Administration Manager/ Computing Technician for secure storage.
- Software audits will be carried out on a regular basis to ensure no unlicensed software is being used in School. New software is currently being installed on the server that will:
 1. Prevent programmes from being downloaded from the Internet
 2. Audit all software on network connected machines via the serverHowever a rolling programme of audits will continue on stand alone machines and all other equipment.
- Under no circumstances must copies of any software be transferred to or from any off site system unless the appropriate licence has been purchased and software cannot be hired or sold on to another user.
- Installation of software is the responsibility of the Computing Co-ordinator or the Computing Technician.
- Software is continually being updated and a catalogue of available software is being developed and is available upon request from the Computing Technician.
- CDs or other items which have purchased software on them, must be given to the School Administration Manager on receipt and original copies of licences etc will also be kept by the School Administration Manager.
- The Computing Technician will maintain an inventory of software installed and will advise the Headteacher if additional licences need to be purchased.

USE OF THE INTERNET

All school members may communicate with others through the Internet and are expected to use it in an appropriate manner at all times. It may be used in lessons 'live' for lesson content and for interactive teaching programs. There are many benefits, but also a number of possible dangers. Rules for the use of the Internet are contained in our Safe Use of the Internet policy. Safeguards in our school include constant adult supervision, sites being filtered by our service provider, controlled links, and the use of child-friendly search engines. Any member of the School community or other School user who, in the opinion of the Headteacher or the Computing Co-ordinator, uses the Internet inappropriately will have their Internet access rights removed.

If students or staff discover unsuitable material the URL and the nature of the content should be reported immediately to the Computing Co-ordinator, Computing Technician or the Headteacher immediately. Any unsuitable URL or site with inappropriate links will be reported to the Internet Service Provider as soon as possible.

The school curriculum network and the school administration network are not directly connected to prevent access to data and there are currently no plans to connect the two systems.

Our school website provides information about the school, and an opportunity to celebrate children's work with the worldwide learning community. It also has information for parents about eSafety and a link to the CEOP website where reports of inappropriate contact or sharing can be reported to the police.

Parents are required to sign permission slips for their child to use the Internet in school. A record of those who do not have permission is held by each class teacher, and by the school office (see separate Internet Access Policy and statement of acceptable use).

Use of photographs and names

Photographs are used in and around the school for many purposes. We may use photographs of children or their work when communicating with parents and the wider community, in newsletters, in the school prospectus, on the school website, or in the governors' report to parents. The local or national press may on occasion publish photographs of children participating in events at school.

Parental permission must be obtained before using photographs of children or their work as detailed above. Parents will want to know the policy of the press about name disclosure before giving permission for a photo to be used. Lists of those children for whom permission has NOT been given will be held by each class teacher, and by the school office.

Photographs will be checked to ensure that they are suitable.

Data Protection

Any individual has the right in law to view information held about him or her on a computer system. Care should be taken about any sensitive information concerning child protection issues etc. If a report is composed and printed on the system, it should immediately be deleted and hard copies kept in the appropriate files in the care of the Child Protection Officer.

Health and Safety

All pupils receive introductory sessions in the class room dealing with Health and Safety issues. These include showing pupils how to adjust the brightness and contrast settings of monitors as well as the correct keyboard and seating position. Pupils also receive instruction on the correct procedure for using a mouse and are regularly reminded not to look directly into the projector beam when using the interactive whiteboard.

When using *COMPUTING* in class all staff will make a visual check of equipment specifically to ensure that:

- a fire extinguisher suitable for electrical fires is in place and undamaged
- there are no trailing cables or leads that could constitute a health hazard
- there are no daisy-chained multiblock electrical sockets in use
- there are no damaged chairs or other faulty and/or potentially hazardous equipment.

Lessons involving the use of computing should be structured to ensure that there are periodic breaks where pupils' attention is directed away from the monitor to a distant object such as the teacher or interactive whiteboard.

Computers located in classrooms are positioned, wherever possible, away from light reflection and glare.

All equipment is checked annually under the Electricity at Work Regulation 1989. A detailed inventory is kept up to date by the bursar who ensures all equipment is checked. New equipment is added to the inventory on arrival.

Regular Risk Assessment surveys are conducted by the designated H&S representative; faults are logged and appropriate action taken.

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 for all administration staff. Whilst this legislation only applies to people at work we seek to provide conditions which meet these requirements for all users.

Monitoring and review

The monitoring of the standards of the children's work and of the quality of teaching in computing is the responsibility of the subject co-ordinator. The computing subject co-ordinator is also responsible for supporting colleagues in their teaching of computing, for keeping informed about current developments in the subject, and for providing a strategic lead and direction for

computing in the school. The subject co-ordinator gives the Headteacher an annual summary report in which s/he evaluates the strengths and weaknesses in the subject, and indicates areas for further improvement. The subject co-ordinator has specially-allocated time for carrying out the vital tasks of reviewing samples of the children's work, and of visiting classes to observe the teaching of computing.

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