

Pembridge Hall Policy for Information and Communication Technology For staff Parents and pupil

Revised October 2011

Ethos

We believe in the concept of life long learning and that people learn in different ways. We maintain that learning should be a rewarding and enjoyable experience for everyone. At Pembridge Hall we aim to provide a rich and varied learning environment that allows children to develop their skills and abilities, and make informed choices.

Introduction

This policy reflects the values and philosophy of Pembridge Hall in relation to the teaching and learning of Information Communication Technology (ICT). It gives guidance on planning, teaching and assessment.

The following aims and objectives relate directly to the aims of the School and serve as a guide to our teaching and construction of Development Plans. Fundamental to the aims of the School being achieved is a realisation that the learning and development of a pupil is a partnership between parents, teachers and pupil. The aims and objectives should work to complement individual departmental aims and objectives, not to replace them. The Scheme of Work sets out what children in different Year Groups will be taught, what hardware they will use and the appropriate software to support the core and foundation subjects. The policy has due regard for the professional development of all staff within the school, ensuring that they are fully trained and confident to lead this curriculum area.

Audience

This policy relates to pupils in Key Stages 1 and 2. The children in the Kindergarten Years follow the Early Learning Foundation Goals.

Philosophy

ICT is a very important area of all our lives and is accelerating and intensifying year by year. We believe it is essential that all the children at Pembridge Hall are provided with the skills to use the ever-increasing range of technological equipment that is available in our society. We aim to provide the resources to implement an ICT curriculum that is broad, balanced and wide-ranging in approach, thus allowing future progress and success by pupils at this school. It is our belief that, in the use of ICT, we should create an environment that is exciting and motivating. The way ICT is used should encourage children to develop confidence in their use of equipment and programs, thus allowing the highest standards to be achieved. In this way, ICT will be used to support learning across the curriculum. At Pembridge Hall, we acknowledge the growing importance of, and changes in, the application of ICT.

At Pembridge Hall we recognise that:

- ICT is an important subject within the National Curriculum
- Children have the entitlement to good training in ICT skills
- ICT facilitates learning across the curriculum
- ICT improves efficiency and quality
- The ability to communicate and share information electronically is a desirable skill for all pupils
- ICT is used to support all areas of the curriculum, especially Literacy and Numeracy
- The Internet and e-mail are tools that will enable pupils to develop links with the wider world
- ICT is not just learning about computers, but learning through computers, using technology as a tool in tandem with other teaching methods.

Aims:

ICT is a non-core Foundation subject within the National Curriculum. The aims of teaching ICT at Pembridge Hall are consistent with our school philosophy and take account of the legal requirements of the National Curriculum.

1. To develop, maintain and stimulate pupils' curiosity, interest and enjoyment in I.C.T. and to encourage pupils to have open, enquiring minds and to perceive I.C.T. in the context of a wider body of knowledge, skills and vocabulary. Pupils should ideally become autonomous users of I.C.T. with the associated skills supporting life long study, the pursuit of personal interests and prospective employment in a modern technological society.
2. To enable pupils to acquire appropriate, transferable I.C.T. skills, knowledge and understanding - progression must feature in the acquisition of I.C.T. skills. All staff should then feel confident that pupils have a basic level of I.C.T. capability which can be applied to pupils' learning in a specific area of the Curriculum. Pupils should feel confident enough with their transferable skills that they are encouraged to use unfamiliar software.
3. To enable all pupils to have equal access to I.C.T. and to experience success in their work, regardless of age, ethnicity and ability.
4. To support all staff in their need to develop confidence and strategies in using I.C.T. within their teaching by:
 - a) providing an ongoing INSET programme for staff appropriate to their needs, their pupils' needs and the needs of the Curriculum
 - b) offering informal support to staff

All subject teachers should be shown how I.C.T. and their subject expertise fit together to enable the use and delivery of I.C.T. as well as that of their own discipline.

5. To implement the belief that I.C.T. must feature in the overall Development Plan for the School and that appropriate resources must be allocated to it.
6. To allow pupils to develop informed opinions about their I.C.T. and to be able to support them by reasoned arguments.
7. To support the implementation of the statement on 'Shared Values' and to enable pupils to develop a range of desirable personal qualities such as safety awareness, politeness, perseverance, concern for others, initiative and independence.

Objectives:

These objectives relate directly to the **seven** aims of the I.C.T. Department at Pembridge Hall School.

The National Curriculum Key Stage 1 and 2 should be used as a basic core for the scheme of work. The schemes of work for the I.C.T. and other departments should refer to the four main categories of I.C.T. as being:

Category 1 - Finding things out

Pupils should be:

- able to collect, retrieve and consider information and data from a variety of sources, e.g. people, books, databases, multimedia CD-ROMs, videos and TV.
- able to enter and store information in a variety of forms, e.g. in a prepared database and to save their work on both fixed and removable storage media.
- able to retrieve information from their saved work on both fixed and removable storage media.
- critical of the validity of information produced using I.C.T. and be aware that the results may be affected by the use of inaccurate data or careless data entry.

Category 2 - Developing ideas and making things happen

Pupils should be:

- able to use computers, spreadsheets, programmable devices and dedicated instruments for automating actions/processes, testing predictions, discovering patterns/relationships, problem solving, modelling, controlling events, monitoring and measuring processes.
- able to use modelling to simulate situations which cannot be experienced in the laboratory, e.g. use of model programs to simulate, explore and evaluate unusual or dangerous experiences, processes, reactions and environments. Controlling, monitoring and measuring can all involve data capture and data logging, e.g.
 - i. practicals provide opportunities to utilise sensors of pulse rate, temperature, pH, pressure, length, movement, force, resistance, etc.
 - ii. The investigation/analysis of physical relationships and processes using spreadsheets can be used to model the effects of changing one or more variables - from a simple digital readout of a parameter to the use of feedback to control a system.
- able to use text, tables, images and sound to develop their own ideas.
- able to select from and add new information, for a particular purpose, to that which they have personally retrieved.
- able to measure, record and respond to and derive new information, for a particular purpose.
- able to plan and give instructions that make things happen, e.g. programming a buggy or floor turtle to follow a predetermined route by programming appropriately sequenced instructions.
- able to develop their own ideas and explore what happens in real and imaginary situations, e.g. trying out different colours on an image, using an adventure game or simulation.

Category 3 - Exchanging and sharing information

Pupils should be:

- able to use word-processor, spreadsheet, database, DTP and graphics software to analyse, organise, reorganise, draft, collate, refine and finally present information fit for a particular purpose.
- able to use e-mail and other means to share and exchange information.
- familiar with the different ways one piece of information can be presented.
- able to effectively present a variety of information in a variety of forms, e.g. text, images, tables, sounds, in order to share specific ideas with others, e.g. for public display. N.B. This may involve the use of tape and video recorders.

Category 4 - Reviewing, modifying and evaluating work as it progresses

Pupils should be:

- able to judge when to use I.C.T. to collect, handle and investigate scientific information.
- aware of the many possible applications of I.C.T.
- aware of how I.C.T. can be used to do things which can also be done in other ways.
- share their views and experiences of I.C.T. with their peers and others using relevant terminology.
- critical of their own work and that of others so as to review what they have done and to help them develop their own ideas.
- able to describe the effects of their own actions.
- able to consider and discuss how they might improve their own I.C.T. work and capabilities.

Much of the work in the subject departments is subject specific but where appropriate pupils are encouraged to use the skills and knowledge acquired in other areas of the Curriculum to enhance their work. Departments support the skills based I.C.T. lessons by offering pupils the opportunity to reinforce and consolidate their skills in short tasks throughout a course of study.

At KS2, an introduction to basic I.C.T. skills takes place once every week in every Year group and is delivered as part of the subject's timetable. All work is delivered through topics relating to the various subjects Curriculum. This allows us to emphasise cross-departmental links to the pupils.

The following core skills are appropriate to I.C.T. and are used for formative assessment.

Conceptualising Skills - the ability to organise information and form a concept or to generalise what has been understood so that an idea is clearer and easier to understand.

Hypothesising Skills - the ability to use hypotheses to predict, assess trends and to make judgements.

Investigative Skills

- the ability to identify I.C.T. questions and issues, and to establish an appropriate sequence of investigation;
- the ability to identify and collect both quantitative and qualitative information/data and to make use of a variety of sources, e.g. statistics, Web sites, CD ROMs, etc.;
- the ability to observe, select and record information accurately;
- the ability to select appropriate I.C.T. equipment and software to fulfil specific purposes;
- the ability to be systematic in the use of appropriate methods to search for and obtain data/information from a range of sources.

Interpretative Skills – the ability to extract, analyse and interpret information/data from a variety of sources. Pupils should be able to enter data into a data handling package for processing and analysis.

Evaluation Skills - the ability to evaluate (assess validity and limitations) and draw valid conclusions or reasoned judgements relating to accuracy of data/methods, methods of collecting/presenting or modelling techniques. Data should be assessed for accuracy and the significance/consequences of any errors understood.

Communication Skills - the ability to record and present information, and to describe it clearly using appropriate terms and techniques considering the target audience. Transformation of data to graphs, diagrams, etc. Extended writing to describe hypotheses, methods, results and interpretations.

To support the progression of skills for our pupils we endeavour to:

- i. expose pupils to the use of I.C.T. in as many subject areas and contexts as possible. This will increase as more staff becomes more confident and begin to extend the incorporation of I.C.T. into their schemes of work;
 - ii. use a wide and expanding range of software and I.C.T. equipment as is appropriate, manageable and affordable;
 - iii. encourage pupils to recognise the transferable nature of their I.C.T. capability and thereby have confidence when using new software or when using familiar software in a new context.
3. The modes of delivery across the Curriculum must remain flexible so as to address the various needs of the pupils in the classroom – (see Equal Opportunities, Differentiation and SEN policies). Pupils who require special aids or adapted methods/environment/equipment to facilitate access to activities both within and beyond school are supported by:
- the provision of technological aids to assist in practical and written work;
 - the provision of communication methods other than speech, e.g. computers, technological aids, eg. Easy speak recording device.

Much of the software recommended by the I.C.T. Department features differentiation and the setting of appropriate targets for an individual pupil. Teachers work hard to share ideas to maximise their expertise in exploiting the potential of I.C.T. in differentiating tasks and targets.

Teachers are encouraged to adopt a wide range of teaching/learning styles within a course of study - the decision will have considered an individual's or

a group's special needs and nature of work. Teachers actively celebrate effort and achievement in all areas and for all pupils. There is a determination to reward commitment and perseverance at all levels of ability. Where appropriate a variety of I.C.T. facilities are made available to encourage pupils of all abilities to experiment and progress.

4. The major platform by which training is offered is the I.C.T. programme for INSET

5. The rate of development within I.C.T. is rapid and appears set to continue for the foreseeable future. For the School to maintain realistic goals as to how it is to maintain some progress within I.C.T., all teachers must see its development as part of their role. A proportion of each department's capitation, the School and departmental INSET and Development Plans must take I.C.T. into account. There is regular discussion in the I.C.T. meetings with respect to how uses of I.C.T. are enhancing or will enhance learning and how future developments could increase this. It also means departments are able to regularly share their own departmental aspirations and plans, thus preventing the development of I.C.T. taking any role other than a part of the overall development. We hope to have the 'machine for the job' (software, hardware and peripherals) to enable progression and continuity and to make full use of the I.C.T. equipment with respect to:
 - the capabilities of the hardware;
 - the amount of use;
 - making use of any possible expansion capability.This includes the upgrading of the hardware and software where needed and when manageable. The manageability is determined by available finance, and realistic demands on staff time and staff assessment of what is required.

6. There are few aspects within our lives which are unaffected by the new technologies. The School therefore aims to mirror this and expose pupils to the diversity, influence and uses of I.C.T. This will encourage the pupils to become critical, independent users of I.C.T. Staff attempt to show the benefits that I.C.T. have given to us as well as the associated problems by the use of well-chosen resources and carefully phrased comment. The staff allow opportunities at various times for group discussion so that we can listen to each other's views and hopefully reflect upon them on. Topics for discussion and consideration include:
 - computer systems and control technology in everyday life;
 - pupils' own experiences of I.C.T.;
 - the use of I.C.T. in the outside world;
 - how control is integral to many everyday devices;
 - critical reflection on pupil's own and others' use of I.C.T.;
 - the impact of I.C.T. and other new technologies on social, employment, ethical, moral and economic issues.

7. The School believes guidance is important as pupils begin to learn to take responsibility for their work and progress. Work must be sufficiently challenging, meet the needs of all individuals and provide a balance between

teacher-directed and self-directed work. Teacher confidence is critical within the realm of I.C.T. for them to feel confident enough to allow the pupils to go off at a 'tangent' or for pupils to undertake investigative work of a less prescriptive manner. Pupils are also encouraged to carry out individualised research using the laptops in the classrooms.

Teachers encourage discussion and sharing of ideas when appropriate to the work. Lessons are conducted in a calm atmosphere where mutual respect and trust abound - this atmosphere is conducive to pupils demonstrating a new technique to teachers and to 'take chances' with their work without fear of ridicule or feelings of failure. To actively involve the pupils in their learning will help to foster independent thinking and informed planning which is crucial if they are to exploit the I.C.T. facilities to the maximum.

Extra Curricular activities.

Key Stage 1: Computer Crazy runs every Monday

The children are taught the skills relevant to their year group. We use digiblues to make movies, use drawing skills to create different projects, design covers for our movies, we use the internet to find appropriate photos to paste into Word and design things for bags or T-shirts. We are create DT projects.

Key Stage 2 club: Computer Club runs every Tuesday (currently not running on date of review)

Again the children are taught essential year group based skills. Photo manipulation, scrapbooks, design for candles and making movies using digiblues.

Monitoring

Examples of work are stored in an ICT portfolio. This is updated by the ICT coordinator on a regular basis to ensure there is a range of work to illustrate each strand at each level.

Equal Opportunies and Special Education Needs

All children, regardless of gender and ability, will have equal access to the ICT curriculum and will have the opportunity to make the most of their own potential, within this field.

Gifted an Talented

The proven increase in motivation and achievement for students when using I.C.T. emphasises the need to plan work appropriately and fairly.

We have a variety of software that can be used to match resources/tasks with student ability. Both written and spoken questions are structured to enable students of all abilities to understand and respond. The activities show variety throughout a module and within a lesson if possible. (See scheme of work for a list of suggested activities)

Role of the e-Learning coordinator

- Maintenance of this policy
- Maintenance of the school Internet policy/acceptable use policy
- Preparing an ICT development plan that includes extra ICT provision in support of school expansion plans
- Establishing a comprehensive scheme of work covering all aspects of the programme of study
- Delivering the ICT scheme of work
- Providing a timetable for the ICT suite
- Monitoring ICT
- Identifying appropriate opportunities across the curriculum where ICT can enrich teaching and learning
- Providing information to parents regarding e-safety
- Reporting to Senior Management Team
- Providing and maintaining a co-ordinator's file
- Keeping abreast of new government initiatives and new technological developments in ICT
- Being aware of how ICT might be used to improve access for pupils with special needs
- Being aware of the how ICT can be used to differentiate teaching and learning to meet the needs of all pupils
- Supporting and training staff
- Modelling lessons for colleagues
- Providing lesson resources
- Providing manuals and books
- Providing current website links
- Creating displays for the ICT suite
- Liaising with the Alpha Plus Groups designated ICT support organisation, currently Fabric, to resolve issues such as:
 - Problems with the installed hardware and software
 - Adding new users to the network
 - Installation of new software
 - Installation of new hardware
 - Maintaining an inventory/audit of all ICT equipment
 - Hardware maintenance
 - Server maintenance

Resources

The school acknowledges the need to continually maintain, update and develop its ICT resources and to make progress towards a consistent system by:

- Investing in software that will effectively deliver the strands of the ICT curriculum

- Investing in software that will support the use of ICT across the curriculum

Access and Deployment

ICT network infrastructure and equipment has been sited so that:

- Each Year group has five computers where individual ICT work can be done.
- Larger ICT groups can work using computers in the ICT suite.

Health and Safety

All pupils receive introductory sessions in the ICT suite 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.

Other provisions include:

- Classrooms and ICT suite are fitted with blinds
- Computers are positioned, wherever possible away from light reflection and glare.
- All equipment is checked annually under the electricity at Work regulation 1989. An inventory is kept in the property record book in the office.
- Regular Risk Assessment surveys are conducted by the Health and Safety officer; faults are logged to Fabric and appropriate action taken.
- Lessons involving the use of ICT are 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.

Pembridge Hall e-safety Policy

(See School e-safety policy)

Hardware and software

At Pembridge Hall our policy on purchase of software and hardware, in conjunction with Alpha Plus group, is such as to make our equipment compatible with developments in the field of ICT provision. In addition, the provision of teaching and learning resources through the Internet will reduce our reliance on any particular equipment, thereby ensuring that new resources are deployed in a timely, cost effective manner.

To ensure a consistent ICT environment for both staff and pupils the Pembridge Hall ICT Coordinator has created definitions for both a common desktop and server configuration. The Pembridge Hall ICT Coordinator is working actively with Fabric, the 3rd party responsible for management of the ICT infrastructure, to ensure that Pembridge Halls desktop and server platforms are consistently implemented and maintained.

Security

- Use of ICT will be strictly in line with the "Alpha Plus use of Information and Communication Technology Policy".