Introduction

The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, iPads, programmable robots and digital cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Connaught House 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.

Aims

The school's aims are to:
> Provide a relevant, challenging and enjoyable curriculum for IT and computing for all pupils.
> Meets the requirements of the national curriculum programmes of study for IT and computing.
> Use IT 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 IT and computing throughout their later life.
> To develop the understanding of how to use IT 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.

Rationale

The school believes that IT 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 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 (see also Early Year's policy)

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 experiences in the real world, such as in role-play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or work Bee Bots. Recording devices can support children to develop communication skills. This is particularly useful with children who have English as an additional language.

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 compute 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

Connaught House 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 IT and computing across the school. Teachers are required to inform the IT and computing co-ordinator of any faults as soon as they are noticed. Resources, if not classroom based, are located in Form Two. A service level agreement with NPW is currently in place to help support the coordinator to fulfil this role both in hardware & software. IT and computing network infrastructure and equipment has been sited so that:

Every classroom from Junior One to Form Six has a Mac book or laptop connected to the school network.

Every classroom from Junior One to Form Six has an interactive whiteboard with sound, DVD and video facilities.

There is a laptop trolley containing nine 9 laptops with internet access available to use in every classroom.

Each class from Junior 1 to Form Six has access to at least one iPad.

Each class from Form 1 to Form Six has an allocated slot for teaching of specific IT and computing skills.

The laptops are available for use throughout the school day as part of IT and computing lessons and for cross curricular use.

Pupils may use IT and computing independently, in pairs, alongside a TA or in a group with a teacher.

Planning

As the school develops its resources and expertise to deliver the IT and computing curriculum, modules will be planned in line with the national curriculum and will allow for clear progression. Modules will be designed to enable pupils to achieve stated objectives. Pupil progress towards these objectives will be recorded by teachers as part of their class recording system. Staff will follow medium term plans with objectives set out in the national curriculum and use the same format for their weekly planning sheet. A minority of children will have particular teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include G&T children, those with SEN or those who have EAL. Teachers must take account of these requirements and plan, when necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum and assessment activities. During any teaching activities teachers should bear in mind that special arrangements could be made available to support individual pupils. This is in line with the school inclusion policy. These children should be identified and discussed at pupil progress meetings to ensure appropriate provisions or interventions are put into place.

Assessment and record keeping (also see assessment policy)

Teachers regularly assess capability through observations and looking at completed work. Key objectives to be assessed are taken from the national curriculum to assess key IT and computing skills each term. Assessing IT and computing work is an integral part of teaching and learning and central to good practice. It should be process orientated- reviewing the way that techniques and skills are applied purposefully by pupils

to demonstrate their understanding of the concepts of IT and computing. As assessment is part of the learning process, it is essential that pupils are closely involved.

Assessment can be broken down into:

- Formative assessments are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.

  Summative assessment should review pupils' capability and provide a best-fit level. Use of independent open-ended tasks, provide opportunities for pupils to demonstrate capability in relation to the term's work. There should be an opportunity for pupil review and identification of next steps. Summative assessment should be recorded for all pupils- showing whether the pupils have met, exceeded or not achieved the learning objectives.

We assess the children's work in IT and computing by making informal judgements as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgement of the work of each pupil as to whether they are yet to obtain, obtained or exceeded the expectation of the unit. We record the results in our assessment files and we use these to plan future work, to provide the basis for assessing the progress of the children and to pass information on to the next teacher at the end of the year.

IT and computing work is saved on the school network. Other work may be printed and filed within the subject file from which the task was set. There is also an evidence folder on the learning platform to keep samples of the children's work in a portfolio.

Monitoring and evaluation

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring cycle. This may be through lesson observations, book trawl or looking at other data for the subject. The subject leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school. We allocate special time for the vital task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

Pupils with special educational needs (see also SEND policy)

At our school we teach IT to all children, whatever their ability. IT forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Our teaching looks at a range of factors, including classroom organisation, teaching materials, teaching style and differentiation, so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

Equal opportunities (see also equal opportunities policy)

Connaught House School will ensure that all children are provided with the same learning opportunities regardless of social class, gender, culture, race, disability or learning difficulties. As a result we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to IT and computing and all staff members follow the equal opportunities policy. Resources for SEND children and gifted & talented will be made available to support and challenge appropriately.

The role of the coordinator

There is an IT and computing coordinator who is responsible for producing an IT and computing development plan and for the implementation of the IT and computing policy across the school.

To offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of IT.

To maintain resources and advise staff on the use of materials, equipment and books.

To monitor classroom teaching or planning following the schools rolling programme of monitoring.

To lead staff training on new initiatives.

To attend appropriate in-service training and keep staff up to date with relevant information and developments.

To have enthusiasm for IT and computing and encourage staff to share this enthusiasm.

To keep parents informed on the implementation of IT and computing in the school.

To liase with all members of staff on how to reach and improve on agreed targets.

To help staff to use assessment to inform future planning.

The role of the class teacher

Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning IT and computing skills and using IT and computing across the curriculum.

To plan and deliver the requirements of the EYFS outcomes and early learning goals or to the best of their ability. Or, to plan and deliver the requirements of the national curriculum programme of study for IT and computing to the best of their ability.

Secure the children's motivation and concentration.

Provide equal opportunities through their teaching methods.

Use appropriate assessment approaches.

Set suitable targets for learning as outlined in the inclusion policy.

To keep up to date assessment records.

The class teacher's role is a vital role in the development of IT and computing throughout the school and will ensure continued progression in learning and understanding.

Staff training

The IT and computing coordinator will assess and address staff training needs as part of the annual development plan process or in response to individual needs and requests throughout the year.

Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the coordinator.

Teachers will be encourage to use IT and computing to produce plans, reports, communications and teaching resources.

Health and safety (see also health and safety policy)

The school is aware of the health and safety issues involves in children's use of IT and computing. All fixed electrical appliances in school are tested by a contractor every 5 year and all portable electrical equipment in school is tested every twelve months. It is advised that staff should not bring their own electrical equipment in to school but, if this is necessary, then the equipment must be PAT tested before being used in school. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the head teacher who will arrange for repair or disposal.

Children should not put plugs into sockets or switch the sockets on.

Trailing leads should be made safe behind the equipment.

Liquids should not be taken near the computers.

Magnets must be kept away from all equipment.

Online Safety guidelines will be set out in the Safeguarding and Online Safety policy.

Security

The IT and computing coordinator will be responsible for regularly updating anti-virus software.

Use of IT and computing will be in with the school's 'Acceptable Use Policy'. All staff, volunteers and children must sign a copy of the schools AUP.

Parent's will be made aware of the 'Acceptable Use Policy' at school entry and Key Stage 2.

All pupils and parents will be aware of the school rules for responsible use of IT and computing and the internet and will understand the consequence of any misuse.

The agreed rules for safe and responsible use of IT and computing and the internet will be displayed in all IT and computing areas.

Cross Curricular Links

As a staff we are all aware that IT and computing capability should be achieved through core and foundation subjects. Where appropriate, IT and computing should be incorporated into schemes of work for all subjects. IT and computing should be used to support learning in other subjects as well as develop IT and computing skills.

Parental Involvement

Parents are encouraged to support the implementations of IT and computing where possible by encouraging use of IT and computing skills at home during home-learning tasks. They will be made aware of online safety and encouraged to promote this at home.