Technology Policy
Design Technology, ICT and Computing

This policy should be read in conjunction with the *E-Safety Policy* the *Teaching and Learning Policy* and the following:
Assessment Policy
Equality and Community Cohesion Policy
Gifted and Talented Pupils Policy
Health and Safety Policy
Safeguarding Policy
Special Educational Needs and Disability Policy

Other documents that support the teaching and learning of ICT:

National Curriculum for Computing
Documentation to support curriculum planning e.g. Hamilton Trust, QCA materials

Throughout this policy 'parents' denotes those with parental responsibility.

Within this Policy, Information and Communication Technology is abbreviated to ICT.

<u>Mission Statement</u>

Through teaching Technology, we equip children to participate in a rapidly changing world where work and leisure activities are increasingly transformed by technology.
ICT is an effective teaching and learning tool to ensure high standards of pupil attainment across the curriculum, and provides children with lifelong learning skills. Children are taught how to use the Internet and email safely, both in school and outside the school environment. In addition, we are committed to the use of ICT to promote efficient working practices and management of data.
We enable children to find, explore, analyse, challenge, exchange and present information. Children will also use computer science to analyse and solve problems in computational terms.

Aims and Objectives

We aims to enable children to:

- understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- analyse problems in computational terms and write computer programs to solve such problems; develop ICT capability in finding, selecting and using information;
- use ICT for effective and appropriate communication;
- apply the use of hardware and software to a range of situations involving information; apply their ICT skills and knowledge to their learning in other areas;
- use their ICT skills to develop their language and communication skills;
- explore their attitudes towards ICT and its value to them and society in general. For example, to learn about issues of security, confidentiality and accuracy.

Approaches to Teaching and Learning

Design Technology, ICT and computing skills are taught explicitly and within other curriculum subjects; using staff laptops or other resources (see below). Teachers ensure meaningful contexts for the teaching of skills and, where relevant, these link to the cross-curricular topic being studied.

Resources

Each member of staff has a laptop so children and staff are also able to log on to the network from these. Internet use is a part of our curriculum and a necessary tool for staff and pupils. There is access to the Internet within the classrooms. Wireless is available throughout the centre. We have strict guidelines relating to the use of internet use within school (see E-safety policy)

Computers for staff support preparation, planning and administration, including both laptops and machines in the main office. Teaching staff are welcome to plan at home on their own laptop, or a centre laptop with permission.

Learning Environment

Teachers are asked to monitor to ensure equal access to individuals when using laptops as a teaching and learning tool.

Planning

Computing is taught discreetly across school on a weekly basis and ICT is integrated into planning for core and foundation subjects (see section 7 below). E-Safety is also planned for within the Curriculum (see E-Safety Policy).

Assessment

There are many opportunities within Technology for children's on-going self-assessment as they seek solutions to problems, edit and self-correct their work. Children are assessed at the end of each unit of work by teachers. See Assessment Policy for further details.

Cross Curricular Opportunities

Reading, writing, communication and maths

Communication skills are a key part of Technology and can be applied across the curriculum as well as outside the centre. Access to ICT across the curriculum is always in conjunction with the school's E-Safety Policy.

In English, children learn how to edit and revise text. They have the opportunity to develop their writing skills by communicating with people over the Internet and they are able to join in discussions with other children throughout the world. They learn how to improve the presentation of their work by using desk-top publishing software. Film clips are used to stimulate writing across the year groups in each group.

In Maths, many ICT activities build upon the mathematical skills of the children. Children use ICT to collect data, make predictions, analyse results, and present information graphically. There are also activities that enable children to acquire and practice measuring techniques involving positive and negative numbers and decimal places. Children also use ICT to practise their computational skills and as an assessment tool.

Foundation subjects

As part of the topic based curriculum, children use ICT to research new topics, carry out interactive experiments, work through simulations, watch videos and film clips, and record audio and visual presentations. Topics are also used as a context for the development of skills in dedicated ICT and computing sessions.

Pupils develop research skills, safe use of search engines and become more discerning regarding the information they encounter. They are taught to decide what information is appropriate for their work. The children begin to investigate the quality and plausibility of the information they gather as well as learning to amend, edit and present work in a variety of ways depending on the purpose of the task and the audience.

Spiritual, Moral, Social and Cultural

Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of ICT and Technology, and they also gain a knowledge and understanding of the interdependence of people around the world. Cyber Bullying is addressed with children in PSHE.

Enhancing the curriculum

Many children have access to technology at home, while others do not. The number of children who do not have access to ICT at home is monitored and additional access during school or break times may be provided if required. We have a number of Kindle

Fires on site which are available for children to use at home if periods of remote learning are required.

Inclusion

Groups at our setting have children with widely differing ICT abilities and experience in Technology. ICT hardware and software also provide useful tools both to help overcome barriers and improve access for children with SEND or EAL and to enable more able, gifted and talented children to be challenged further.

Special Educational Needs and Disability and English as an Additional Language

In planning lessons, teachers identify the learning goals for the majority of children and consideration is given to modifying the task, or providing peer or adult support, for children with language or learning needs.

Certain pupils with physical or communication difficulties have their own equipment for use across the curriculum, which may be specially adapted.

Gifted and Talented

A small proportion of children exhibit particular gifts and talents in ICT and often need to be challenged through extension and enrichment activities. Gifted and talented children benefit from the use of software that offers opportunities to ask questions, solve problems and investigate ideas further.

Health and Safety and Safeguarding

Safeguarding children is of the highest priority and this includes safe use of the Internet and other technologies. **This section should be read in conjunction with the School's E-Safety Policy.**

All ICT equipment along with other electrical items is regularly checked under Portable Appliance Testing (PAT) guidelines.

All members of staff and volunteer helpers who work with children on computers are required to observe safety regulations.

In particular they should ensure that:

- equipment is sited on a solid surface if computer trolleys are not provided in the room;
- the siting of equipment does not interfere with free movement around the room and that there are no trailing cables;
- mains sockets are not overloaded and that extension leads, where used, are secured to the classroom wall. Extension leads must not trail across the classroom floor;

- computers are not sited near to: water supply, radiators, sand trays;
- computers are kept out of direct sunlight, as this makes the screen difficult to read and can cause overheating;
- staff are aware of the location and type of fire extinguishers;
- food and drink are kept away from ICT hardware and software;
- children are aware of the safety issues surrounding the use of electrical equipment; faulty or broken equipment is not used and reported to the ICT Leader;
- children who are particularly sensitive to the flicker from monitors are watched carefully. A list of children who suffer from epilepsy is circulated to all staff.
- children are supervised at all times when using a computer. all staff are aware of, and have read, the E-Safety Policy.
- all teachers have received training on e-safety.

Rules for Internet use

Rules for Internet use are posted in all rooms where computers are used. Pupils are informed that Internet use will be monitored. Children are taught responsible and safe use procedures with regard to Internet access. See E-safety policy.
All staff are required to sign a 'fair and safe internet usage' agreement prior to being provided with a school laptop.

Maintenance of ICT system security

The centre ICT systems are reviewed regularly with regard to security. Virus protection and filtering systems are installed and updated regularly.

Policy review: Jennifer Wood, Centre Director
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