Computing Policy

DANE ROYD SCHOOL

Aims which guide our policies and practice

As a school, we seek to promote shared moral and ethical values to unite both local and global interests which enable children to become global citizens. Our agreed school aims are:

- *To create a happy and stimulating learning environment, in which each child will develop to their full potential, thereby achieving high educational standards.*
- *To develop self-awareness, self-respect and tolerance of others by developing an understanding of the world in which they live.*
- *To appreciate human achievements and aspirations; develop aesthetic sensitivity and appreciation; physical ability and co-ordination and a concern for the safety of themselves and others.*
- *To prepare children to live and work with others, enabling them to be responsible and caring members of the community.*
- *To give children, at the end of their period of primary education, an appetite for acquiring further knowledge, experience and skills, so ensuring they are prepared for the challenges of the next stage in their education.*

We ensure that all of our policies and practices are guided by these aims and we seek to ensure that they are at the forefront of all that we do.

Computing and ICT Policy

Introduction

The development of Information Communication Technology (ICT) is changing rapidly at home and in the community. These changes are providing worldwide opportunities therefore we must ensure that our pupils can take every advantage of these prospects by equipping them appropriately. We will do this by giving our pupils appropriate access to relevant software and hardware as well as developing the appropriate skills, knowledge and understanding to use ICT confidently and safely throughout their lives.

Purpose:

The purpose of this policy is to describe our practice in computing and ICT education and the principles upon which this is based.

Aim(s):

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 programmes 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.

Wider school aims/ethos:

The school's aims are to:

- Promote and stimulate the use and enjoyment of computing and ICT to support, enhance and extend learning opportunities. This therefore supports our school aim of creating a happy and stimulating environment for all children.
- Use computing as both a specific curriculum area and cross-curricular tool to support and further learning across our curriculum.
- Help pupils to develop confidence and competence in using and applying computing skills in their future lives, allowing them to acquire knowledge and skills to prepare them for the next stage in their education which directly links to our aims as a school.
- Help teachers develop confidence and become competent deliverers of the new computing curriculum.
- Respond to new developments in computing and ICT.
- Ensure pupils can explore and use ICT in a safe environment and equip them with the skills to stay safe when using ICT outside of school. This interlinks with our school aim to allow children to 'develop a concern for the safety of themselves and others'.

Early years:

- The Foundation Stage has a curriculum based on exploration and play based experiences, through both indoor and outdoor provision. Foundation Stage should include learning environments that give access to a range of ICT scenarios they would encounter in real life. Children in Foundation Stage have access to a range of hardware including: Interactive white board (IWB), iPads and cameras. There is appropriate software installed on all hardware to give opportunity for development across a variety of subjects. There is also a specific early years scheme of work on the Mr Andrew's Online curriculum which is called 'Once App On a Time', which focuses on different popular fairy tales and work on the iPads. Each project within this scheme also covers other early learning goals and this is clear and evident through planning.

Key Stage 1:

- Pupils in Key Stage 1 should understand what algorithms are, how they are implemented on programmes, and that programmes execute by following instructions. They should be able to write, test and debug simple programmes, using logical reasoning to predict the behaviour of such programmes. Pupils should organise, store, retrieve and manipulate data in a range of digital formats. They should be taught how to use ICT safely both in and out of school, and how to be safe and respectful online. They should also be taught and understand how to keep personal information private, and to be able to identify where to go for help and support if they have concerns about online interactions or programmes.

Key Stage 2:

- Pupils in Key Stage 2 should design programmes that achieve a set goal. They should work with variables to change input and outputs in order to solve problems, using logical reasoning to write and explain simple algorithms whilst also detecting and correcting any errors that they might find. Pupils should have an understanding of networks, looking particularly at the internet and how it provides opportunities for communication and collaboration. Explore how internet search engines find and store data, use search engines effectively by discerning and evaluating digital content and respecting individuals' intellectual property. They should also use a variety of software to collect, analyse, evaluate and present data and information. Pupils in this Key Stage should also understand how to use technology in a safe, respectful and responsible manner, recognising unacceptable behaviour and identifying ways to report concerns.

Consultation:

Bethany Ellam (Computing Lead) has written this policy in consultation with:

- Mrs G. Kendall – Curriculum leader.

Sources and references:

- Implementation of the National Curriculum (September 2014)
- Mr Andrew's Online Computing Scheme of Work

Procedures and practice

1. Roles and responsibilities

Senior Management:
- Overall responsibility for the use of computing technologies rests with the senior management of the school. The headteacher determines the way in which computing should support, enrich and expand the curriculum. They determine the allocation of provision and resources in conjunction with the ICT and Computing Co-ordinator. The headteacher ensures that computing technologies are used to meet the schools wider aims.

The Role of the ICT and Computing Co-ordinator:
- The ICT Co-ordinator plays an important role in achieving the aims and objectives of the ICT and computing policy. They oversee the areas for development in ICT and liaise with the headteacher on requirements for purchasing new software and hardware. The co-ordinator is responsible for ensuring the implementation of the current curriculum requirements are met throughout school. They are responsible for raising the standards within the subject by highlighting necessary training and strategies for staff members.

Subject Co-ordinator:
- It is the Subject Co-ordinators duty to identify where there is opportunity to use ICT and computing within their particular area. They will work with the ICT and Computing Co-ordinator to ensure that ICT and computing are embedded throughout the curriculum.

Class Teacher:
- It remains the responsibility of the class teacher to ensure that an effective record of children's capabilities within the area of computing is recorded. The class teacher is also responsible for identifying their own strengths and weaknesses within the subject and seek support from the ICT and Computing Co-ordinator as a result of this.

2. Aspects

Definition:

As we recognise ICT and computing is rapidly developing worldwide, we hold ICT and computing with high importance throughout Dane Royd. We therefore would like to ensure that the teaching of ICT is taught at all ages and of high quality, using it to enhance the learning environment and classroom activities.

Equal opportunities:

The school is committed to promoting equal opportunities for the distribution and access to resources ensuring every child, regardless of race, gender or class, has the opportunity to make progress within the computing curriculum.

The school is aware that not every child has the same access to hardware or software at home and therefore sets no requirements that homework is completed by this means. It also makes no assumptions that children have prior knowledge of the equipment available in school.

Health and safety:

All equipment is checked annually under the '*Electricity at Works Regulation 1989*'. Pupils use laptops and therefore have no access to the wires; these are stored within the trolley and cannot be removed without adult supervision. Pupils are aware of the rules associated with using the hardware and the potential dangers.

Planning:

The school is currently following the 'Mr Andrew's Online Creative Computing Curriculum'. This contains detailed projects, including detailed and thorough planning. A long-term, rolling curriculum plan has been put into place, with projects assigned to Key Stage topics. Staff are encouraged to follow this plan and each project as it is set out, until they become comfortable with meeting the requirements of the new curriculum in detail so that they can adapt projects to different topics and outcomes. The ICT and Computing Co-ordinator has ensured that all current hardware can achieve the aims of this scheme of work and that any software has been installed across the necessary hardware.

Teaching:

As with all subject areas, activities should be planned and taught according to the different levels of pupils' abilities. The scheme of work currently used ensures that there is opportunity for all children to begin to show an aptitude in the subject and to access the project, with range to challenge those children who are more able in the subject of Computing. This therefore means the scheme is accessible for all abilities and all age ranges.

Organisation:

Computing will be conducted in the form of each class teaching their half-termly project in one specific day, each half-term to ensure access to resources. This will be organised and timetabled by the Computing lead. Staff are to arrange and organise computing lessons on this specific day, using the project outlined on the long-term plan. Computing must be conducted half-termly and staff should organise use of resources by ensuring they use their given slot from an appropriate timetable.

Homework/parent partnership:

The school website is updated frequently. The site has been specifically designed with ease of use in mind. Parents and pupils can use the website to view policies and long term plans. Key communications are posted on the web page for parents to view. A school Twitter account, as well as individual class Twitter accounts, is used to provide parent with updates about the school and celebrate the school's achievements.

Resources:

- Interactive White Boards
- Interactive voting systems
- Laptops (some with CD and DVD drives)
- Projectors
- Digital cameras
- Digital video cameras
- Tape recorders
- Laptops
- iPads

Assessment:

Class teachers are required to make ongoing formative assessments of pupils' abilities within the computing curriculum. Summative assessment are to be undertaken by class teachers using the excel spreadsheet assessment tools, assessing whether children in their class are working towards, at or above their age related expectations, based on the National Curriculum objectives they have been taught. Pupils' work can be stored in their individual documents area on laptops and work on iPads can be shared to the class teacher's iPad for storing or transferring to a laptop.

Monitoring and evaluation:

The quality of computing and ICT work throughout school will be monitored by the subject co-ordinator through lesson observations and evidence of work undertaken in class including photographic evidence. The subject leader is responsible for maintaining the subject leaders file. The subject leader is responsible for reporting to the Governing Body through presentations.

Monitoring and review:

Any outcomes from monitoring will be reviewed by the subject co-ordinator and leadership team.