Pattishall Primary is committed to safeguarding and promoting the welfare of children and expects all staff and volunteers to share this commitment.

Computing Policy

Introduction

The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. In an increasingly digital world, there now exists a wealth of software, tools and technologies that can be used to communicate, collaborate, express ideas and create digital content.

At Pattishall CE Primary School we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive, approach to learning how computer systems work, the use of ICT and the skills necessary to become digitally literate and participate fully in the modern world. The purpose of this policy is to state how the school intends to make this provision.

Aims

The school aims to:

- Provide a broad, balanced, challenging and enjoyable curriculum for all pupils.
- Develop pupil's computational thinking skills that will benefit them throughout their lives.
- Meet the requirements of the National Curriculum Programme of Study for Computing at Key Stage 1 and 2.
- To respond to new developments in technology.
- To equip pupils with the confidence and skills to use digital tools and technologies throughout their lives.
- To enhance and enrich learning in other areas of the curriculum using ICT and computing.
- To develop the understanding of how to use computers and digital tools 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 ICT, computer science and digital literacy:

- Are essential life skills necessary to fully participate in the modern digital world.
- Allow children to become creators of digital content rather than simply consumers of it.
- Provides access to a rich and varied source of information and content.
- Communicates and presents information in new ways, which helps pupils understand, access and use it more readily.
- Can motivate and enthuse pupils.

- Offers opportunities for communication and collaboration through group working both inside and outside of school.
- 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 and computing in a range of contexts, including unplugged computer activities and outdoor play. Computing is not just about computers. Early years learning environments should feature ICT scenarios based on experience in the real world, such as in role play.

Children gain confidence, control and language skills through opportunities such as 'programming' each other using directional language to find toys/objects, creating artwork using digital drawing tools and controlling programmable toys. Outdoor exploration is an important aspect and using digital recording devices such as video recorders, cameras and microphones can support children in developing communication skills.

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 computing 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

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of ICT, computer science and digital literacy across the school.

Teachers are required to inform the computing subject leader of any faults as soon as they are noticed. Resources, if not classroom based, are located in the trollies located next to the school offices.

A service level agreement with RM is currently in place to help support the subject leader to fulfill the role both in hardware & software. Computing network infrastructure and equipment has been sited so that:

- Every classroom has a laptop connected to the school network and an LED Touchscreen.
- There are 30 laptops available for class use.
- There are 6 iPads in Reception and 24 iPads in the trolley for use across the school.
- Internet access is available in all classrooms.
- Each class from YR to Y6 has an allocated a lesson slot each week for teaching computing as a discrete subject.
- The laptops and iPads are available for use throughout the school day as part of computing lessons and for cross-curricular use.
- Pupils may use ICT and computing independently, in pairs, alongside a TA or in a group with a teacher.

Planning

We teach a balanced curriculum involving 'skills' lessons, based on the Switched on Computing units by Rising Stars, and using children's Computing capabilities to support teaching across the curriculum. Rising Stars Switched on Computing fully meets the objectives of the National Curriculum for Computing and allows for clear progression in Computing. Pupil progress towards these objectives will be assessed by the class teacher.

For more information on the units taught, please see the curriculum map for Computing.

Assessment and record keeping

Teachers regularly assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess Computing each term. Assessing computing is an integral part of teaching & learning and key to good practice.

Assessment should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. 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' ability and provide a best fit 'level'. Independent tasks provide a number of opportunities and scope for pupils to demonstrate their capability throughout the term. 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 Computing by making informal judgments as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgment of the work for each pupil as to whether they have yet to obtain, obtained or exceeded the expectations of the unit.

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, pupil discussion and evaluating pupil work. We allocate time for the vital task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

Inclusion
Please also see the Inclusion Policy. We believe that all children have the right to access IT and computing. In order to ensure that children with special educational needs achieve to the best of their ability, it may be necessary to adapt the delivery of the computing curriculum for some pupils.

We teach ICT and computing to all children, whatever their ability. Computing forms part of the National Curriculum to provide a broad and balanced education for all children. Through the teaching of Computing we provide opportunities that enable all pupils to make progress. We do this by setting suitable challenges and responding to each child's individual needs. Where appropriate ICT can be used to support SEN children on a one to one basis where children receive additional support.

Equal Opportunities
We 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 Computing and all staff members follow the Equal Opportunities Policy.

The role of the Subject Leader
The computing subject leader is responsible for the implementation of the Computing Policy across the school. Their role is to:

- Offer help and support to all members of staff in their teaching, planning and assessment of computing.
- Provide colleagues opportunities to observe good practice in the teaching of computing.
- Maintain resources and advise staff on the use of digital tools, technologies and resources.
- Monitor classroom teaching and planning.
- Monitor the children's progression in Computing, looking at examples of work of different abilities.
- Keep up-to-date with new technological developments and communicate information and developments with colleagues.
- Lead staff training on new initiatives.
- Attend appropriate in-service training.
- Have enthusiasm for Computing and encourage staff to share this enthusiasm.
- Keep parents and governors informed on the implementation of Computing in the school.
- 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 Computing and using their knowledge, skills and understanding of Computing across the curriculum. They will plan and deliver the requirements of the National Curriculum for Computing to the best of their ability.

The class teacher's role is a vital role in the development of Computing throughout the school and will ensure continued progression in learning and understanding, and create effective learning environments.

Staff training
The Computing subject leader will assess and address staff training needs. Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the subject leader. Teachers will be encouraged to use ICT and Computing to produce plans, reports, communications and teaching resources.

Health and safety
The school is aware of the health and safety issues involved in children's use of ICT and Computing.

All fixed electrical appliances in school are tested by an approved contractor every five years 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, equipment must be PAT tested before being used in school. This also applies to any equipment brought in to school by, for example, visitors running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people.

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 Headteacher who will arrange for repair or disposal.

In addition:

- Children should not put plugs into sockets or switch the sockets on.
- Trailing leads should be made safe behind the equipment.
- Liquids must not be taken near the computers.
- Magnets must be kept away from all equipment
- E-safety guidelines will be set out in the E-safety policy & Acceptable Use Policy

Security

We take security very seriously. RM will be responsible for regularly updating anti-virus software. Use of ICT and Computing will be in line with the school's 'Acceptable Use Policy'. All staff, volunteers and children must sign a copy of the schools Acceptable Use Policy'.

Parents will be made aware of the 'Acceptable Use Policy.' All pupils and parents will be aware of the school rules for responsible use of ICT and Computing and the Internet and will understand the consequence of any misuse.

Cross curricular links

As a staff, we are all aware that ICT and computing skills should be developed through other subjects. Where appropriate, ICT and Computing should be planned for to support learning in the rest of the curriculum.

Parental involvement

Parents are encouraged to support the implementation of ICT and Computing where possible by encouraging use of ICT and Computing skills at home for pleasure, through homework tasks and use of the school website. Parents are made aware of issues surrounding E-safety and encouraged to promote this at home.