Computing Policy

2018

ROBERT PEEL Primary School

School Vision

At Robert Peel Primary School our vision is to develop confident, resilient and independent learners who are able to communicate effectively with others. Our aim is for the children to be happy in all aspects of school life and for them to aspire to be the best they can be.

We will achieve this by creating a culture of independent learning and discovery that is stimulating and enjoyable for both children and staff. The children's views will be sought and valued and high expectations will ensure that all children achieve even when challenged.

Subject Vision

We believe that computing and ICT skills will help prepare our pupils to participate in a rapidly changing world, in which work and other activities are increasingly transformed by access to varied and developing technology. We recognise that ICT is an important tool in both the society we live in and in the process of teaching and learning. Computing and ICT skills are a major factor in enabling children to be confident, creative and independent learners. Robert Peel's pupils use technology to find, explore, analyse, exchange and present information responsibly, creatively and critically. They learn how to employ ICT to enable rapid access to ideas and experiences from a wide range of sources. Our vision is for all members of our school community to become confident users of ICT, with the skills and knowledge to use appropriate ICT resources effectively as powerful tools for teaching and learning, and to be able to apply these skills to new tools and software that they may encounter in the future.

Aims of Policy

In line with National Curriculum 2014 Computing programmes of study and through the delivery of our Computing Scheme of Work, we aim 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.

Through cross-curricular teaching, we also aim to develop general ICT skills.
Our aim is to enable pupils to:

- Develop their capability in finding, selecting and using information from ICT resources;
- Use ICT for effective and appropriate communication;
- Consider how their ICT skills and knowledge can be applied to support their learning in other areas of the curriculum;
- Explore their attitudes towards ICT and its value to them and society in general;
- Develop their knowledge and understanding of e-safety and how rapidly changing technology has implications for data protection and personal security;

The aims of ICT are to enable teaching staff:

- To use ICT as a tool to enhance, extend and enrich learning, teaching and management across the whole curriculum thereby raising standards and expectations across the school;
- To enable children to become independent, discriminating users of ICT, gaining confidence and enjoyment from their computing lessons and ICT activities;
- To develop a whole school approach to computing and cross-curricular ICT, ensuring continuity and progression in all strands of the curriculum;.

- To ensure that ICT is used to improve access to learning for pupils with a diverse range of individual needs, including support of SEN teaching and EAL teaching;
- To maximise the use of ICT, developing links with the local community, including parents, local schools and other agencies;

Objectives

Early Years Foundation Stage:
In the Early Years Foundation Stage, children develop ICT skills through meaningful experiences that cover all the prime and specific areas of learning and development across the EYFS framework require a broad, play-based experience of computing and ICT skills in a range of contexts, including outdoor play. These skills are 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 to participate in activities such as: 'painting' on an interactive whiteboard; programming a control toy or role-playing conversations using toy mobile phones or walkie-talkies. Recording devices can support children to develop their communication skills. The school has a range of recording equipment, including USB 'microphone' voice recorders, voice record buttons and IPADS with integrated microphones and recording software.
The requirements for ICT in the EYFS area set out in the specific area understanding the world-technology.

Key Stage 1 – Computing Curriculum 2014
By the end of Key Stage One, 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;

Key Stage Two – Computing Curriculum 2014
By the end of Key Stage Two, 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;

Teaching and learning

Teachers' planning is differentiated to meet the range of needs in any class including those children who may need extra support, those who are in line with average expectations and those working above average expectations for children of their age. A wide range of styles are employed to ensure all children are sufficiently challenged:

- Children may be required to work individually, in pairs or in small groups according to the nature or activity of the task.
- Different pace of working
- Different groupings of children - groupings may be based on ability either same ability or mixed ability.
- Different levels of input and support
- Different outcomes expected

The ICT/Computing coordinator will review teachers' ICT plans to ensure a range of teaching styles are employed to cater for all needs and promote the development of ICT capability.

Resources

The school acknowledges the need to continually maintain and update its ICT resources and to make progress towards a consistent, compatible system by investing in resources that will effectively deliver the strands of the National Curriculum and support the use of ICT and Computing across the school.

MP ICT is currently in place to provide support with technical issues on site. There is a log for teachers/support staff, teachers are required to inform the ICT technician of any faults as soon as they arise. Computing and ICT resources, located in the ICT store should be returned when not in use. Individual teachers are responsible for checking equipment before each use and ensuring that it is suitable and ready for use.

Available resources
Every classroom from Nursery to Year 6 has a laptop connected to the school network and an interactive whiteboard with sound, DVD facilities.
Laptops and IPADS are timetabled for use during the school day, as part of ICT and Computing lessons and for cross curricular use.
The ICT and computing technician is in school on a weekly basis.

Assessment, Recording and Reporting

- Feedback mainly through verbal comments and discussion;
- Teachers on the process as well as the outcomes;
- Peer group strategies are used to provide effective feedback, for example, during discussion or when setting tasks to highlight an understanding of particular concepts that a piece of software uses.
- Self-Evaluation or Peer Evaluation against a check list of success criteria is effective.
- Children's work can be displayed on IWB screen and children can give peer feedback orally.
- Written comments on a project at the end of a unit identify on how the child has applied the skills they have learn.

- Teachers add comments to a child's work to help move their learning on (e.g. PowerPoints such as 'Go back and animate your slides'). These comments will later be deleted by the child once they have acted on them;
- Teachers carefully plan paired tasks to ensure that pupils of all abilities achieve their learning objective;
- Individual assessment tasks are also used;

Monitoring

There is a designated coordinator to oversee the planning and delivery of Computing within the school. The coordinator is responsible for raising standards in computing through:

- Facilitating the use of ICT across the whole curriculum.
- Liaising with Headteacher and technicians and then updating development plans and policies on a regular basis.
- Identifying training needs amongst staff and providing training where appropriate.
- Advising colleagues about effective teaching strategies.
- Managing equipment and purchasing equipment (in liaison with Headteacher).
- Monitoring delivery of ICT and reporting to the Headteacher, SMT and governing body on the current status of the subject.

Monitoring computing will enable the coordinator to gain an overview of teaching and learning throughout the school. In monitoring the coordinator will:

- Analyse children's work to check that the agreed scheme of work is being taught.
- Hold discussions with pupils.
- Assist with work moderation and assessment.

SEND

We recognise ICT offers particular opportunities for our pupils with special educational needs and gifted and/or talented children and /or children with English as an additional language for example. ICT can cater for the variety of learning styles which a class of children may possess.

- Using ICT can:
  increase access to the curriculum
- Raise levels of motivation and self esteem
- Improve the accuracy and presentation of work
  address individual needs

We aim to maximise the use and benefits of ICT as one of many resources to enable all pupils to achieve their full potential.
If the situation arises, the school will endeavour to provide appropriate resources to suit the specific needs of individual or groups of children.

Written by G. Wood Computing leader, in consultation with the staff

This policy was agreed by Governors on _____

Signature of Chair of Governors _____Date _____