

Computing overview

The use of information and technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At The March Church of England Primary 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 the aims, principles and strategies for the use of ICT at The March Church of England Primary School

Our School Vision for Information Technology

At the March School we believe in the concept of lifelong learning and the ideas that both adults and children learn new things every day. We maintain that learning should be a rewarding and enjoyable experience for everyone, it should be fun. Through our teaching we equip children with the skills, knowledge and understanding necessary to be able to make informed choices about the important things in their lives. We believe that appropriate teaching and learning experiences help children to lead happy and rewarding lives. At our school we provide a rich and varied learning environment that allows children to develop their skills and abilities to their full potential.

Aims for the use of ICT in our school

- To become an "e-confident" school where ICT is integrated effectively in the planning, teaching, learning and assessment of all areas of the Curriculum.
- To enable children to become autonomous, independent users of ICT, gaining confidence and enjoyment from their ICT activities.
- Develop pupils' practical skills in ICT and the ability to apply these skills to the solving of relevant and worthwhile problems.
- Develop pupils' understanding of the applications, limitations and effects of using ICT in the world around them.
- Give all pupils an equal opportunity to achieve high levels of performance in their national curriculum work for ICT.
- Prepare pupils for the challenges, changes and responsibilities that ICT will continue to bring to the world of the future. Encouraging the flexibility and openness of mind necessary to adjust to and take advantage of, the every quickening pace of technological change, while being alert to the ethical implications and consequences for the individual and society.

By the end of the foundation stage pupils will be taught to

- begin to show an interest in ICT
- A broad, play-based ICT curriculum in a range of contexts, including outdoor play.
- Have opportunities to find out about and identify the uses of everyday technology and use ICT and programmable toys to support their learning.
- Access to appropriate resources.

By the end of key stage 1 pupils will 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.
- Begin to show an interest in ICT
- Have opportunities to find out about and identify the uses of everyday technology and use ICT and programmable toys to support their learning.
- Access to appropriate resources.

By the end of Key Stage 2 pupils will be able 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 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.

Planning and delivery, How pupils will use ICT

Children have access to banks of laptops (15) and notebooks (15) which can be used in their classrooms. Each class also has 2 curriculum pc's, and a have access to Beebots, Probots, Flowol, Data Loggers, Kindles, interactive white boards, digital microscopes, microphones, learn and go boxes, Tuff-cams, Busbi video cameras, and visualisers. Teachers use ICT to support teaching and learning in all curriculum areas, and children are also taught ICT skills in explicit ICT skills-based lessons.

ICT is used for whole class, group and individual work. Groups are organised so each pupil is able to play an effective part in the work, no pupil being marginalised due to gender, ability, ethnic or culture background.

The school uses the Cornerstones scheme of work to support planning and teaching of ICT skills. In ICT, as with all subjects, in order to develop the continuity and progression of teaching and learning, a balance between whole class, individual and group work, and direct teaching, pupil investigation and skills practice is planned throughout the school, which is regularly reviewed by the ICT Co-ordinator. ICT in the Foundation Stage is planned in accordance with the Early Years Foundation Stage Framework and with a focus on the 'Understanding of the World' area of learning. Children are given regular access to a range of ICT software and hardware as part of a child-initiated curriculum.

ICT is seen as a tool to be used as appropriate throughout the curriculum to support and enrich children's learning, the ICT scheme of work highlights the opportunities to both teach and apply

ICT skills. These help to ensure continuity and progression throughout the school and are the working documents for colleagues in their long term planning.