



Manor Primary School
Computing Policy



Computing Policy

INTENT

At Manor Primary School our computing curriculum is designed to equip children to participate in a rapidly-changing world where work and leisure activities are increasingly transformed by technology. Our intent is to offer a broad, balanced, rich and vibrant curriculum that provides challenging pathways to achievement for all learners and leads to outstanding curriculum provision. It will provide children with the skills necessary to use technology to become confident, creative and independent learners and use information in an effective way. Through their learning in computing, children will find, explore, analyse, exchange and present information. Children will discover how to use a range of hardware and software to create, use and edit images, sounds, animations, websites, blogs, databases and algorithms. They will learn how to programme robots and drones and discover key events in the history of computing. Through their growing knowledge and understanding of computing, children will gain an appreciation of how to use technology safely and respectfully and promote key British Values.

Our Computing curriculum is designed to allow each pupil to:





So that each pupil:

Achieves the best possible academic standards in Computing regardless of starting point or ability.

Experiences and explores a range of computing systems to solve problems, design systems and understand the power and limitations of human and machine intelligence.

Is able to use, express and develop their ideas through technology becoming digitally literate.

Is able to use a range of digital tools to create, use and edit; images, sounds, animations, websites, blogs, databases and algorithms.

Is able to use different coding languages to program robots and drones.

Understands significant developments in the history of computing.

Explores their attitudes towards computing and its value to them and society in general.

For example, to learn about issues of security, confidentiality and accuracy.

IMPLEMENTATION

Manor Primary School is committed to meeting the requirements of the primary National Curriculum. Our Computing schemes of work reflect the content and challenge of the curriculum.

Our curriculum enables teachers to use a variety of teaching methods and learning styles within lessons. The curriculum is planned and taught taking into consideration the needs of all pupils based on their relative starting points. The topics studied in computing are planned to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move up through the school. Children will receive direct instruction on how to use hardware or software where necessary, however the main emphasis of our teaching is for children to use computing to explore, create and edit purposefully and safely to achieve a quality end product. For example, children might apply their computing science skills to program a drone to take images of our local environment to support learning in history and geography. The core skills and attributes of computing will be taught discretely, children can then apply these across the curriculum such as analysing and presenting data in science, producing graphics in art or creating databases in mathematics.

Children are provided with purposeful learning opportunities with real life contexts to develop and apply their computing skills. We offer children the opportunity to use a variety of hardware and software to enhance their learning. Children will research, discuss and discover the importance of reviewing and editing their work to produce a product that meets



the needs of the intended audience. They will engage in a wide variety of problem-solving learning which enables them to develop the core skills of digital literacy, computer science and information technology. Our curriculum prepares our pupils for life in modern day Britain by teaching them how to use computing safely and respectfully, promoting British Values. We also provide opportunities for our pupils to learn about the contribution of Britons to innovation, excellence and changes in the world.

Organisation and Planning

We carry out the curriculum planning of Computing in three phases (long-term, medium-term and short-term). The Computing subject leader works this out in conjunction with teaching colleagues across the MAT and MAT ICT Director.

Our long-term Computing plan shows how teaching units are distributed across the year groups, and how these fit together to ensure progression within the curriculum plan.

Our medium-term plans give details of each unit of work for each term. They identify the key learning objectives for each unit of work and stipulate the curriculum time that we devote to it. The Computing subject leader reviews these plans on a regular basis ensuring key skills are being taught; learning objectives are being covered, in relation to a child's age related expectations and the interest and needs of our pupils.

The class teacher is responsible for writing the short-term plans with the Computing component of each lesson. These short-term plans list the specific learning objectives of each lesson. These lesson plans list specific learning objectives with differentiated success criteria and identify the resources and learning opportunities that will be used in each lesson. The class teacher keeps these individual plans and will discuss them on an informal basis with the Computing subject leader.

Delivery of the computing curriculum

In the Foundation Stage, we teach Computing in nursery and reception classes as an integral part of the topic work covered during the year. As the nursery and reception classes are part of the Foundation Stage of the National Curriculum, we relate the Computing aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. The children have the opportunity to use the computers, digital cameras and programmable devices such as Beebots. Then during the year, as they gain confidence children will start using a computer to find information and to communicate in a variety of ways.

At Key Stage 1 and 2 the computing curriculum enables children to achieve the objectives set out in our intent. Children use computing to support the development of key English skills.



They will use a range of desktop publishing software to write, present, edit and review text. Children will 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 through the mediums of emails, blogs, vlogs and websites.

Many computing activities build upon the mathematical skills of the children and allow children to apply their prior knowledge in a range of contexts. Children use computing in mathematics to collect data, make predictions, analyse results, and present information graphically. They also acquire measuring techniques involving positive and negative numbers, and including decimal places. Children will develop these skills when accessing the information technology and computing science components of the computing curriculum.

Computing makes a contribution to the teaching of PSHE and citizenship as children learn to work together in a collaborative manner. They develop a sense of global citizenship by using the Internet and e-mail. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of computing, and they also gain a knowledge and understanding of the interdependence of people around the world. They will also gain an understanding of how to use technology safely and respectfully. Children will learn the school eSafety rules, how to respect copyright and ensure they do not share personal data online. They will be taught how to recognise unacceptable online behaviour and know what to do if they have an eSafety problem.

Where children are to participate in learning opportunities outside the classroom, for example, an educational trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils and their learning needs.

Our Children's Curriculum Charter

In Computing our children are entitled to a world class curriculum which enables them to;

- Become competent, confident, creative and responsible users of information and communication technology.
- Become digitally literate by using computing proficiently to find, select and use information and for effective and appropriate communication.
- Gain a knowledge of how computing is used in real world systems and used to create purposeful products.
- Apply a range of hardware and software to create programs, systems and a range of content.
- Understand and apply the fundamental principles and concepts of computer science including abstraction, logic, algorithms and data representation.



- Monitor and control events both real and imaginary.
- Gain practical experience of writing computing programs to solve problems.
- To evaluate and apply information technology analytically to solve problems.
- Apply their computing skills and knowledge to their learning across the curriculum.
- Understand significant developments in the history of computing.
- Have access to a range of resources including physical devices e.g. Beebots, hardware-iPads, computers, green screens, media suite and software.

IMPACT

At Manor Primary School, through our computing curriculum we are enabling children to gain a broad and balanced understanding of the key computing skills and knowledge of digital literacy, information technology and computer science. The curriculum supports children in developing their understanding of how technology is used effectively and safely.

Our curriculum design will lead to outstanding progress for all pupils, regardless of their starting points, over time. Planned learning will progressively build on prior knowledge and understanding and support children in producing outcomes of the highest quality. Teaching and learning is adapted to cater for the needs of all pupils; providing support for children with special educational needs and enrichment and challenge for more able children.

The computing subject leader is responsible for regularly monitoring and reviewing the curriculum, the standard of the children's work and the quality of teaching in computing including seeking the children's views. The computing subject leader is also responsible for; supporting colleagues in the planning and teaching of computing, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. Time is allocated for reviewing samples of children's work and for visiting classes to observe teaching in the subject. Feedback will be given around what is going well and what are the ways to grow.

Our assessment system of building blocks will be used by the children and staff to reflect on the progress that is being made over time. Assessment is made based upon observations of learning alongside written and non-recorded outcomes. A summary judgement about the work of each pupil in relation to the National Curriculum age related expectations is made at the end of each unit of work. Learning is recorded throughout a unit in the children's Computing profile demonstrating the progression and development of key skills, knowledge and application. This forms the basis for assessing the progress of the children and the level of attainment at the end of a school year. Profiles demonstrate the expected level of achievement in Computing for each age group in the school. The Computing leader will



evaluate progress that has been made and the impact of the curriculum to ensure all pupils have been taught the knowledge and skills they need to deepen their computing understanding.

Review

This policy will be reviewed annually by staff and governors.

Date of next review

September 2021