



## MANOR PRIMARY SCHOOL

### COMPUTING POLICY

*This policy document is a statement of the intent, implementation and impact of the teaching and learning of Computing at Manor Primary School.*

#### Intent

At Manor Primary School we aim to equip pupils to use computational thinking and creativity. Our computing curriculum has links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. Pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Furthermore, they are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate - able to use, and express themselves and develop their ideas through, information and communication technology - at a level suitable for the future workplace and as active participants in a digital world.

The school's policy for Computing follows the National Curriculum for Computing Guidelines and the Early Years Foundation Stage Framework and aims to ensure that all pupils:

#### EYFS

Although the 'Technology' strand has been removed from the 'Understanding the World' Early Learning Goals (Sept 2021). At Manor Primary School, we still believe that teaching computing through cross-curricular activities is essential in our early years setting.

- Remember rules without needing an adult to remind them.
- Match their developing physical skills to tasks and activities in the setting.
- Explore how things work.
- Show resilience and perseverance in the face of a challenge.
- Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'.
- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
- Explore, use and refine a variety of artistic effects to express their ideas and feelings.
- Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.
- Explain the reasons for rules, know right from wrong and try to behave accordingly.
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

### Key Stage 1

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond school
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

### Key Stage 2

- Pupils should be taught to:
- Design, write and debug 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
- Use logical reasoning to explain how some simple algorithms work 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
- Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
- Pupils have an excellent understanding of how to stay safe online, the dangers of inappropriate use of mobile technology and social networking sites.
- Pupils work hard with the school to prevent all forms of bullying, including online bullying and prejudice-based bullying

## **Principles of good Computing teaching**

- Teachers have excellent subject knowledge and understanding of developments in computing pedagogy.
- Teachers facilitate active learning in computing, which ensures pupils' achievement.
- It enables pupils to make connections between individual topics and make cross-curricular links.
- Lessons address pupils' misconceptions effectively; teachers' responses to pupils' questions are accurate and highly effective in stimulating further and deeper thinking.
- Teachers communicate high expectations, enthusiasm and passion about computing to pupils; they challenge and inspire pupils to be the best they can be in computing.
- Teachers use a wide range of innovative and imaginative resources and teaching strategies to stimulate pupils' active participation in their learning.
- The progress across the curriculum of disadvantaged pupils and pupils who have special educational needs and/or disabilities currently on roll matches or is improving towards that of other pupils with the same starting points.

## **Implementation**

The programmes of study for Computing are set out year-by-year for key stages 1 and 2. Schools are, however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, schools have the flexibility to introduce content earlier or later than set out in the programme of study. At Manor Primary School, we teach the 3 strands of the computing curriculum (computers for functional purpose, digital literacy and computer science). These strands are taught across the curriculum and integrated into topics and used to support in cross-curricular links. Online safety is taught explicitly as well as being a key part of all topics and computing lessons.

## **Curriculum Planning**

We have a well-established curriculum that ensures all National Curriculum objectives are covered. Please refer to our implementation grids.

It is the responsibility of the class teacher to ensure that the weekly lessons for any subject are tailored to meeting the needs of the individual children in their class.

Cross-curricular links to other subjects will be made so that pupils can develop an understanding of this subject in an appropriate context. Where there is no link, units will be stand-alone to ensure curriculum coverage. In Early Years, Computing is an integral part of themes being taught.

## **Impact**

Progress and achievement in Computing is evident throughout the curriculum, with pupils continuously building upon skills they acquire each year and applying their skills and knowledge in a variety of contexts. When written work is completed, Teachers will mark pupils' work in line with the school marking policy where appropriate, to help the pupils make progress.

It is the responsibility of the class teacher to maintain an overview of each child's progress in Computing.

- Assessment is carried out in line with the school policy against National Curriculum expectations.
- Assessments are carried out using both summative and formative assessment procedures.
- Formative assessments are made through observations in lessons.
- Summative assessment can take place at the end of each unit of work.
- Assessments are used to inform planning and teaching and learning.
- Written or verbal feedback is given to the child in line with school marking policy, to help guide his/her progress.

Monitoring for Computing is carried out in line with the school monitoring policy. Samples of work are collected and there are folders, kept by the Computing leader, demonstrating the progression of Computing throughout the school.

## **Equal Opportunities and Inclusion**

We recognise that in all classes children have a wide range of abilities, and we ensure that we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this by:

- Involving all of the children in oral work.
- Planning differentiated work to suit the ability of the children.
- Allowing access to materials and equipment.
- Providing additional equipment and resources that allow children to access the subject where necessary.
- Ensuring planned activities are relevant to all pupils.
- Having high expectations of every child.
- Ensuring examples are free from stereotyping.

## **Resources**

In the Computing Suite, all children have access to their own laptop during computing lessons that is accessible with their personal log in, which supports with monitoring their usage. Each teacher allocates a laptop to a child and a seating plan is kept. All classrooms have interactive whiteboards which are used as a starting point for each lesson and have internet access. A wide range of other resources are accessible from key areas in school. Objects/resources that are specific to a single year group are kept within those classrooms.

Ideally, all staff members should be responsible for collecting and returning necessary items to the correct place to ensure that resources are easy for all staff to find. Staff are responsible for informing the subject leader; when extra resources are needed, when there are breakages and when consumables are running low.

## **Health and Safety**

All members of staff will ensure that conditions apply which will minimise the risks and potential hazards involved in this subject. The school's "Health and Safety Policy" should be consulted for details regarding scissors, craft tools, electrical equipment, wet areas and use of other tools. Where appropriate, staff should seek advice from the Curriculum Leader/Competent Person. If teachers are unclear as to whether a material can be used in school, they should consult the relevant Health and Safety posters displayed and also consult the named Competent Person before proceeding. Teachers need to take account of both the children's and their own health and safety when involved in activities.

## **Online Safety**

Any misuses of technology whether safety issues or online safeguarding incidents involving children or adults must be reported to the Head Teacher who is the DSL (Designated Safeguarding Lead). These will be recorded and dealt with accordingly to ensure the further improvement of online safety within Manor Primary School.

All staff are actively committed to embedding online safety in all parts of school life and determined to improve the safeguarding and confidence of the whole school to keep children safe online. Access to online resources is monitored through the Walsall Grid for Learning.

**Please refer to our E-Safety policy.**

### **Role of Computing Leader**

- To be enthusiastic about Computing and demonstrate good practises.
- To keep up to date with current developments in Computing
- To audit resources, identify needs and order equipment in school after consultation with colleagues.
- To 'sample' the work of children across the age range (curriculum monitoring).
- To review and evaluate the effectiveness of teaching and learning in Computing, including the monitoring of planning and teaching within lessons.
- To provide guidance on the implementation of the Computing policy.
- To suggest appropriate assessment activities where needed.
- To provide support to those colleagues who request/require it, including help with planning and organisation