



# Woore Primary and Nursery School

## Computing Profile

### **Introduction:**

The use of information and communication 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 Woore Primary and Nursery 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.

### **Our Aims:**

- To provide a relevant, challenging and enjoyable Computing curriculum for all pupils
- To meet the requirements of the national curriculum programmes of study for computing
- To use computing as a tool to enhance learning throughout the curriculum
- To respond to new developments in technology
- To equip pupils with the confidence and capability to use computing throughout their later life
- To enhance learning in other areas of the curriculum using computing
- To develop the understanding of how to use computing 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 digital devices and the Internet

### **Rationale:**

The school believes that computing:

- Gives pupils immediate access to a rich source of materials
- Can present information in new ways which help pupils understand access and use it more readily
- Can motivate and enthuse pupils
- Can help pupils focus and concentrate
- Offers potential for effective group working
- Has the flexibility to meet the individual needs and abilities of each pupil

### **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

**Computing at Woore Primary and Nursery School**

Woore Primary and Nursery School believes that Computing is an integral part of the learning and teaching across the entire curriculum. We are a very well-resourced school with iPads for all children in Key stage 1 and 2; recording devices, programmable toys and interactive whiteboards available to support the delivery of high-quality computing lessons through the Teach Computing platform. The laptops have the software required to deliver the computing curriculum through the planned Programmes of Study. All computers are networked and linked to the Internet. The school has an 'Acceptable use of the Internet' policy, which parents are asked to agree to, before their child uses the Internet.

**Entitlement**

The children's entitlement to Computing is based upon the Programmes of Study for Computing as defined in the 2014 National Curriculum.

From Years 1-6 children will study the following.

- Online Safety
- Computer Programming
- Presentation skills

In the EYFS, children will have access to a wide range of technology to explore to support their curriculum journey into KS1. Equipment will include ipads, programmable toys and recording devices.

**Teaching and Learning**

Children will have the opportunity to develop their computing capability in the core and foundation subjects. For details of specific applications, see the 2014 National Curriculum for all other curriculum areas. The children will work in the classroom in order to develop their computing skills. Opportunities provided by the class teacher will enable the children to work both individually and in small groups. For all Computing lessons the teacher will ensure that interactive strategies are used and will include class demonstrations, introductions and plenary sessions to meet the learning objectives and success criteria.

In this school, children will have experience with ipads, printers, Bee-Bots, Roamer, data logging equipment, sensing equipment, MicroBits, Crumble boards, digital media and Interactive Whiteboards. They will also have experience with the Internet and a variety of software that allows teachers to provide for progression of skills, concepts and applications. As an inclusive school, Computing is made accessible to children with Special Educational Needs, by providing them with suitable software and tasks, and with extra support in the use of software packages and peripherals available.

In Computing lessons, pupils with specific learning needs also have access to, where appropriate:

- Visual prompts to engage and increase attention
- Real objects to explore and manipulate
- Symbols for key vocabulary
- Opportunities for repetition, to consolidate and reassure
- Opportunities to use special interests where appropriate
- Be fully supported where necessary and encouraged to develop new skills

## **Assessment**

The children's work in Computing is assessed continuously throughout the units of study taught. Progress and attainment is closely monitored throughout each academic year. Teacher assessments in computing are passed on to the next class teacher annually.

## **Internet Access and Online-safety**

All pupils must have returned a signed consent form for them to use the internet. These are completed during the admission process. Although Internet Access within school is protected by the Collective Vision Trust filtering systems, the risks of internet use are still present. We believe it is vital to teach Online-safety as part of the Computing curriculum. As part of our delivery of online safety learning, the school uses specific units within Teach Computing, our online computing platform. We also utilise resources from CEOP and our 1Decision PSHE programme.

## **Online digital Platforms**

In recent years there has been a boom in the education opportunities that are available online. We have bought into the following to give children safe access to online educational opportunities outside of school. These include:

- Teach Computing
- Spelling Shed
- Mathshed
- TT Rockstars
- Letterjoin
- Class Dojo

All pupils have passwords that can be used to access these sites (where relevant).

## **Copyright**

Woore Primary and Nursery School has a responsibility to teach and uphold the laws and guidance on copyright. Images on the internet are not freely available and we have a responsibility to teach children how to check and use information and images appropriately. These are the currently recommended sites:

Microsoft Office clipart now includes photos and moving images. These are allowed to be used if not for profit.

## **Monitoring and Filtering**

The Computing Coordinator is responsible for the implementation of this profile; reporting repairs and issues to Collective Vision ICT and managing problems and requests from staff as required, monitoring Computing standards of achievement and progression, and working with Headteacher to arrange appropriate Inset for all members of staff where necessary. The Class Teachers are responsible for the delivery of this profile and the care and security of the hardware and software. The school is committed to the on-going resourcing of Computing equipment and software, in relation to the School Development Plan. The school is responsible for ensuring that copyright regulations are not infringed.

Monitoring and filtering of appropriate computer usage is managed through the Collective Vision Trust. Monitoring software identifies where breaches of rules and unsafe practice has taken place. This is regularly monitored and managed by the technicians.

## **Inclusion**

At Woore Primary and Nursery School teachers ensure that they adopt an inclusive approach to their Computing planning and teaching; ensuring that pupils of all abilities and backgrounds have an equal opportunity to make good progress and enjoy Computing.