Woodside Primary School
COMPUTING POLICY

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 Woodside 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 how the school intends to make this provision.

Aims

- Provide a relevant, challenging and enjoyable curriculum for Computing for all pupils.
- Meet the requirements of the national curriculum programmes of study for computing.
- 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 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.

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.

Objectives

Early years

It is important in the foundation stage to give children a broad, play-based experience of computing in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature computing scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint' on the whiteboard or program a toy. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language and speech and language concerns.

Key Stage 1

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.

Key Stage 2

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.

Planning

As the school develops its resources and expertise to deliver the computing curriculum, modules will be planned in line with the national curriculum and will allow for clear progression. Modules will be designed to enable pupils to achieve stated objectives. Pupil progress towards these objectives will be recorded by teachers as part of their class recording system. Staff will follow medium term plans with objectives set out in the national curriculum.

We recognise that all classes have children with widely differing computing abilities. This is especially true when some children have access to equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child.

We achieve this in a variety of ways, by:

- setting common tasks which are open-ended and can have a variety of responses.
- setting tasks of increasing difficulty (not all children complete all tasks).
- grouping children by ability in the room and setting different tasks for each ability group.
- providing resources of different complexity that are matched to the ability of the child.
- using classroom assistants to support the work of individual children or groups of children.

Teaching and Learning Style

As the aims of computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible. While at times we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in computing is for individuals or groups of children to use computers to help them in whatever they are trying to study. So, for example, children might research a history topic by on the Internet. Children who are learning science might use the computer to model a problem or to analyse data. We encourage the children to explore ways in which the use of Computing can improve their results, for example, how a piece of writing can be edited or how the presentation of a piece of work can be improved by moving text about, etc.

Inclusion

At Woodside, we plan to provide for all pupils to achieve, including boys and girls, higher achieving pupils, gifted and talented pupils, those with SEN, pupils with disabilities, pupils from all social and cultural backgrounds, children who are in care and those subject to safeguarding, pupils from different ethnic groups and those from diverse linguistic backgrounds.

Resources and access

The school acknowledges the need continually to maintain, update and develop its resources and to make progress towards a consistent, compatible PC system by investing in resources that will effectively deliver the strands of the national curriculum and support the use of computing across the school. Teachers are required to inform the computing leader of any faults as soon as they are noticed. A service level agreement is currently in place to help support the co-ordinator to fulfil this role both in hardware and audio-visual. Computing network infrastructure and equipment has been sited so that:

- Every classroom from nursery to Year 6 has a laptop connected to the school network and an interactive whiteboard with audio.
- There are three laptop trolleys in school; both containing laptops with Internet access available to use in classrooms.
- There is access to iPads throughout the school.
- The laptops and iPads are available for use throughout the school day as part of computing lessons and for cross-curricular use. Classes do have timetabled Computing lessons and during these times, that class will have priority of the resources.
- Pupils may use computing independently, in pairs, alongside a TA or in a group with a teacher.

Technician

- School employs a qualified technician. He is responsible for installation of new software, maintenance of hardware and offers support to staff where difficulties arise. The technician is in school once every week for half a day.

Cross Curricular Links - The contribution of computing to teaching in other curriculum areas

Computing contributes to teaching and learning in all curriculum areas. For example, graphics work links in closely with work in art, and work using databases supports work in maths, while the Internet proves very useful for research in humanities subjects. Computing enables children to present their information and conclusions in the most appropriate way.

English

ICT is a major contributor to the teaching of English. Through the development of keyboard skills and the use of computers, children learn how to edit and revise text. They learn how to improve the presentation of their work by using desk-top publishing software.

Maths

Many ICT activities build upon the mathematical skills of the children. 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.

SMSC and Citizenship

Computing contributes to the teaching of SMCS and citizenship as children learn to work together in a collaborative manner. They develop a sense of global citizenship by using the Internet and email. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse, and they also gain a knowledge and understanding of the interdependence of people around the world.

Health and Safety

The school is aware of the health and safety issues involved in children's use of computing. All electrical appliances in school are tested accordingly. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be PAT tested before being used in school. This also applies to any equipment brought into school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the ICT technician or head teacher who will arrange for repair or disposal.

Safeguarding

See E-safety policy.

Monitoring and Reviewing

The monitoring of the standards of the children's work and of the quality of teaching in computing is the responsibility of the subject leader. The subject leader is also responsible for supporting colleagues in the teaching of computing, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The subject leader gives the head teacher an annual summary report in which she evaluates the strengths and weaknesses in the subject and indicates areas for further improvement. The subject leader has specially allocated time for carrying out the vital task of reviewing samples of the children's work and for visiting classes to observe the teaching.

Security

- The ICT and Computing technician will be responsible for regularly updating anti-virus software.
- Use of computing will be in line with the school's 'acceptable use policy'.

- Parents will be made aware of the 'acceptable use policy'.
- All pupils will be aware of the school rules for responsible use of computing and the Internet and will understand the consequence of any misuse.

Teachers will regularly update children in class on any learning platforms or work that may be set on learning platforms. For more details, see the Remote Learning Policy.

Review

Review Date – September 2026

To be reviewed - September 2028

Headteacher: Richard Collings

Computing Lead: Jo Nelson

Chair of Governors: Katie Anderson