

# Computing Policy

## Statement

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 Ruislip Gardens 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.

We provide an exciting and rigorous curriculum that addresses the challenges and opportunities offered by the technologically rich world in which we live. Computing is concerned with how computers and computer systems work, and how they are designed and programmed. Pupils studying Computing will gain an understanding of computational systems of all kinds, whether or not they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines

## The new 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 information and communication technology.

## Teaching and Learning

The teaching of Computing should help to kindle an interest and excitement, yet develop the skills necessitated and dictated by the demands of computing literacy in the wider world.

At Ruislip Gardens Primary School Computing:

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

To ensure that adequate time is devoted to the development of the subject, Computing is taught as a discreet subject weekly. However, teachers are encouraged to use Computing resources in the planning and delivery of other lessons as actively and practically as possible.

## Early Years Foundation Stage (EYFS)

It is important in EYFS 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.

## Key Stage 1 (taken from National Curriculum)

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 (taken from National Curriculum)

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 Curriculum Planning

As the school develops its resources and expertise to deliver the Computing curriculum, modules are planned in line with the National Curriculum and allow for clear progression. Modules will be designed to enable pupils to achieve stated objectives which will be assessed against. Staff will follow medium term plans with objectives set out in the National Curriculum and supply adequate detail for their own delivery in their weekly planning.

At Ruislip Gardens Primary School we recognise that all classes have children with widely differing Computing abilities. This is especially true with the access that children have to equipment outside of the school day. 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 that 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.

### **Assessment**

Assessment is an integral and continuous part of the teaching and learning process at Ruislip Gardens Primary School. Teachers integrate the use of formative assessment in their teaching and marking and assessment data is used to inform future planning.

### **Monitoring and Reviewing**

The subject leader is responsible for the monitoring of the standards of the children's work and of the quality of teaching in Computing. 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 is responsible for undertaking an annual subject leader report, which is shared with senior leadership, and evaluates strengths and weaknesses in the subject and indicates areas for further improvement.

### **E-Safety and Cyber bullying**

The importance of remaining safe online is covered consistently during the course of an academic year at Ruislip Gardens Primary School. Objectives are derived from DFE and Ofsted Safeguarding documentation and supported by resources obtained from CEOP, Think U Know and Childnet. Issues that become apparent regarding inappropriate conduct and use of Computing equipment, both within and outside school, will be dealt with in accordance with the school's Anti-Bullying Policy. All pupils are asked to sign their commitment to Internet Safety in the Parent Partnership Agreement which is revisited each academic year at Parent Consultations.

### **Resources**

The school acknowledges the need to continually 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 either the Computing subject leader or log themselves, any faults as soon as they are noticed. Resources, if not classroom based, are located in the computer suite. An outsourced technician provides support with both hardware and software within Ruislip Gardens Primary School for 0.5 days per week.

Computing network infrastructure and equipment has been sited so that:

- Every classroom from nursery to Year 6 has a computer connected to the school network and either an interactive whiteboard or touch screen with audio and video facilities.
- Each class teacher from nursery through to Year 6 has access to a class-based iPad with phase appropriate applications installed and access to the Internet.
- There is a computer suite of 31 desktops.
- There is a laptop trolleys in school containing 15 laptops with Internet access available to use in classrooms.
- There is a bank of 32 iPads with a range of applications installed and access to the Internet.
- Each class from Year 1 to Year 6 has an allocated slot across the week for teaching of specific Computing skills.
- The computer suite and laptops are available for use throughout the school day as part of Computing lessons and for cross-curricular use.
- A governor is linked to Computing and is kept up to date with curriculum/strategic Computing issues.

