



Computing Policy

Article 17 - Every child has the right to reliable information from a variety of sources.

Article 29 - Education must develop every child's personality, talents and abilities to the full. It must encourage the child's respect for human rights, as well as respect for their parents, their own and other cultures, and the environment.

Introduction

The use of computer 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 Poplar Farm 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.

Aims

The school's aims are to:

- 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 now refers to the subject of ICT as Computing. 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 Nature of Computing

The National Curriculum presents the subject as one lens through which pupils can understand the world. There is a focus on computational thinking and creativity, as well as opportunities for creative work in programming and digital media. The introduction makes clear the three aspects of the computing curriculum: computer science (CS), information technology (IT) and digital literacy (DL).

The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils 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 National Curriculum states that pupils should be taught to:

Computer Science

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

Key Stage 2

- 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
- Appreciate how [search] results are selected and ranked

Information Technology

Key Stage 1

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content

Key Stage 2

- Use search technologies effectively
- 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

Digital Literacy

Key Stage 1

- 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

- Understand the opportunities [networks] offer for communication and collaboration
- Be discerning in evaluating digital content
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

In the Foundation Stage, the Information Communication Technology requirements stated in the Knowledge and Understanding of the World element of the Early Learning Goals Foundation Curriculum, are covered in continuous and blocked units.

Resources and access

We acknowledge 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 the computing coordinator and Technician of any faults as soon as they are noticed. A contract with Ark ICT Solutions Ltd. is currently in place to help support the coordinator to fulfill this role both in hardware & audiovisual.

- Every teacher has a MacBook laptop connected to the school network.
- All classrooms have BenQ active screens.
- There is a laptop trolley in school containing 15 laptops with Internet access available to use in classrooms.
- Each classroom has 5 iPads.
- Laptops are available for use throughout the school day as part of computing lessons and for cross-curricular use.
- Pupils may use computers independently, in pairs, alongside a TA or in a group with a teacher.
- The school has a computer technician who is in school once per week.

As the school continues to grow, it will further develop its resources and expertise to deliver the computing curriculum. The computing curriculum at Poplar Farm is taken directly from the Teach Computing curriculum developed by the National Centre for Computing Education. Units allow for clear progression and are designed to enable pupils to achieve stated objectives, in line with the national curriculum for computing. Staff will follow medium term plans with objectives set out in the national curriculum. A minority of children will have particular teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include G&T children, those with SEN or those who have EAL. Teachers must take account of these requirements and plan, where necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum and assessment activities. During any teaching activities teachers should bear in mind that special arrangements could be made available to support individual pupils. This is in line with the school inclusion policy.

Assessment

Teachers regularly assess skills and knowledge through observations and looking at completed work. Opportunities for assessments are available across particular units, as established by the Teach Computing curriculum. Key objectives to be assessed are taken from the national curriculum to assess key computing skills each term. Assessing computing work is an integral part of teaching and learning and central to good practice. Each class has a class notebook for examples of work to be saved and shared within the

school network.

Monitoring and evaluation

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring cycle. This may be through lesson observations, book and planning scrutinies. The subject leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school.

This policy will be monitored and reviewed every two years by the Governing Body.

Review

Acceptance of this policy includes a commitment to implementing it in full.

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| This policy was adopted on: | January 2021 |
| Review Cycle: | Every 2 years |
| This policy was subsequently reviewed on: | |
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