Computing Policy

This policy was approved

December 2023

This policy should be reviewed annually

"Together unlocking the potential of every child; inspiring children and changing lives"

Introduction

'A High-quality computing education equips pupils to use computational thinking and creativity to understand and change the world.'
- National Curriculum.

Computing is widespread throughout the modern world, underpinning and enabling industry, technology, innovation and communication. The use of Information and Communication Technology continues to grow rapidly. Children will need to use their knowledge and skills in computing throughout their lifetime to support lifelong learning and future careers.

Although many children will have a wide range of skills in ICT developed from their experiences at home, and through mobile technology, some children will have had more limited opportunities to use ICT. Teachers have a responsibility to teach the National Curriculum requirements of computing, meeting the needs of all children, educate children about using ICT safely, and use a range of ICT to support learning across the curriculum.

This policy is closely linked with the school's E-Safety and Safeguarding policies, as well as all curriculum policies, particularly mathematics, science, and design and technology.

Aims

The National Curriculum aims to ensure that pupils:

- Can understand and apply the fundamental principles and concepts of computer science
- Can analyse problems and have practical experiences of writing computer programmes to solve problems
- Can evaluate and apply information technology to solve problems
- Are responsible, confident and creative users of ICT.

Teachers have a responsibility to ensure their subject knowledge and competence levels are up to date and sufficient for delivering the computing curriculum.

ICT skills are also recognised as cross- curricular within the National Curriculum and their use is expected in all subjects to support and enrich children's learning.

Teaching and Learning

Early Years foundation stage

From the beginning of Reception children should be given opportunities to develop a sense of curiosity, knowledge, skills and experiences of a range of ICT resources including technological equipment.

Through child and teacher led activities children should learn to operate a range of equipment and applications.

Children should explore ICT and use it for a range of meaningful purposes to enhance their leaning. They should recognise that a range of technology is used in settings such as homes and schools.

National Curriculum- Key Stage 1

Pupils should be taught to:

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programmes execute by following precise and unambiguous instructions
- Create and debug simple programmes
- 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.

National Curriculum- 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 worldwide 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 analysing, evaluating and presenting data and information.
- Use technology safely and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Computing Subject Leader Role

The key responsibilities of the Computing subject leader are:

- To monitor levels of achievement, learning and teaching, strengths and areas for development across the school. To provide support where necessary.
- To manage and organise resources and events through the curriculum budget.
- To monitor computing throughout the school, including the frequency of providing children with opportunities to use ICT equipment (e.g. Laptops and iPads), and to provide support where necessary
- To develop and monitor assessment systems for computing throughout the school
- To monitor the opportunities for cross-curricular links within the subject, reading opportunities and the use of challenging questions.
- To create, review and update policies for the computing curriculum, e-safety, safer use agreement for staff and ICT inventory
- To keep up to date with recent developments in computing
- As subject leaders, to take responsibility for purchasing and updating computing equipment

ICT use for remote learning.

- There may be times where Remote Learning may need to take place. This will be delivered via Microsoft Teams. It may include assignments and a daily schedule of live lessons.
- An acceptable use agreement for Teams is available on the school website. This includes expectations around use and safeguarding by staff, parents and pupils.
- ICT equipment is available to support pupils at home if they are unable to access the online learning. A loan agreement will be in place for these families, including expectations of equipment use and its return after schools or bubbles reopen.

Review Date - December 2024