Computing Policy

This Policy should be read alongside our E- Safety Policy

This policy was last revised and adopted by the Governing Board in: November 2022

After each revision the policy is circulated to all Governors, school staff and placed on the school website.

The policy is to be reviewed by the Governing Board in: 2025

Mission Statement

Jarrow Cross Church of England Primary School provides a caring Christian environment where EVERYONE is welcome and given the opportunity to develop their full potential.

Introduction:

The use of Computing is an integral part of the National Curriculum and is a key skill for everyday life. Computers, IPads, programmable robots, digital and video cameras are but a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Jarrow Cross 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 become Computing proficient.

Aims:

• Provide a relevant, challenging and enjoyable computing curriculum 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 computational skills.

• To develop an 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.

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 explore using non-computer based resources. Recording devices can support children to develop their communication skills. This is particular useful with children who have English as an additional language.

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 precise and unambiguous instructions

• Create and debug simple programs

• 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.

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 World Wide 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 collecting, analysing, evaluating and presenting data and information.

- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Computing at Jarrow Cross Primary

Jarrow Cross Primary School believes that computing is an integral part of the Teaching and Learning across the entire curriculum. We are resourced with laptops, IPads, recording devices, cameras, programmable toys and interactive whiteboards available to support the delivery of high quality computing lessons. The laptops and iPads have the necessary software or apps required to deliver the computing curriculum through the planned programmes of study. All computers and iPads are networked and linked to the Internet. The school has

an 'Acceptable use of the Internet' Policy, which Parents/Guardians are asked to agree to, before their child uses the Internet.

Curriculum

A new and bespoke scheme of work has recently been created to ensure all children are given the opportunity to develop computing skills which are fit for the 21st century and will provide children with the necessary skills for future employment.

Opportunities for greater depth learning have been identified and added to the curriculum.

Internet safety links are always identified and are interwoven within the scheme of learning.

The new curriculum will be monitored closely and adapted/updated as required.

Entitlement

The pupil's entitlement to Computing is based upon the Programmes of Study for Computing as defined in the 2016 National Curriculum. The schemes of work used to deliver these programmes of study are covered in the long term plans and are underpinned by the Knowledge and Skills Progression Document.

Implementation

Pupils will have the opportunity to develop their Computing capability in the core and foundation subjects. For details of specific applications, see the 2016 National Curriculum for all other curriculum areas. 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; teacher modelling is used; introductions are included and plenary sessions are incorporated to meet the learning objectives as per the Teaching and Learning policy. In this school, pupils will have experience with networked PCs, printers, Bee-Bots, calculators, digital media, Interactive Whiteboards and laptops. They will also have experience with the Internet and a variety of software that allows teachers to provide for progression of knowledge and 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 Computing

lessons, pupils with specific learning needs also have access to further support, if required.

Assessment

The pupil's work in Computing is assessed continuously throughout the topics that are taught. Records are kept in the form of teacher evaluations, saved work in the StudentShare drive and records of work in a class journal. Every pupil in the school will be assessed three times throughout the academic year and the data logged in the assessment folder for ICT in the Foundation Subjects Assessment Tracking. Teacher assessments, including the end of year level achieved, are reported to parents in the annual reports, and assessments are passed on to the next class teacher.

Management

The Computing Curriculum Leader and Senior Management are responsible for the implementation of this Policy; the management and repairs of Computing resources through School Based Curriculum Support, monitoring Computing standards of achievement and progression, and working with SLT to arrange appropriate Inset for all members of staff where necessary. Jarrow Cross is committed to continuing the reliability of the network. Trevor Heron is currently employed as Computing Technician by the school to support with technical matters. The Class Teachers are responsible for the delivery of this policy and the care and security of the hardware and software. The school is committed to the ongoing 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.

Although Internet access within school is protected by the borough Firewall and Filtering systems as well as the school's own security system. The risks of Internet use are still present. We believe it is vital to teach Online-safety as part of the Computing curriculum. This is embedded into each unit by the class teachers through personalised planning adapted from the 'Switched On' Rising Stars Units of Work. In recent years there has been a boom in the education opportunities that are available online. We have bought into the following to give pupils safe access to online educational opportunities outside of school. These are: - PurpleMash, Times Table Rockstars and Spag.com - All pupils, who have access, have passwords that can be used to access these sites. Pupils have been shown how to use them and how to keep their passwords safe from others.

Copyright

Jarrow Cross 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 under the Creative Commons License.

Review

The policy will be reviewed annually with the aim of meeting any new developments and initiatives both nationally and locally.

Appendix

VEX 123, VEX GO and VEX IQ

The school has been loaned equipment through a charitable foundation. Year 5 will partake in extra lessons which will cover the building, and coding of robots (using VEX IQ) and will enter two teams into a competition which will be against schools from the local area.

Year 5 (and Coding Club) will also benefit from VEX GO robots and they will be involved in a celebration event along with several schools from the local area.

Reception and KS1 will be introduced to VEX 123 which will allow them to begin a STEM journey which culminates in the competition above.

It is envisaged that VEX will be integrated into the new Computing Scheme of work and will be a yearly opportunity for Jarrow Cross to take part in competitions and celebration events.

Agreed By Governors November 22