Computing Policy

This Policy was reviewed by the ICT Co-ordinator

April 2019

Next review date April 2021

Introduction

The 2014 national curriculum introduced a new subject, computing, which replaced ICT.   This represents continuity and change, challenge and opportunity. It gives schools the chance to review and enhance current approaches in order to provide an even more exciting and rigorous curriculum that addresses the challenges and opportunities offered by the technologically rich world in which we live.

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 Acceptable Use Policy and the E Safety Policies should also be read in conjunction with this policy.

National Curriculum

	Key stage 1	Key Stage 2
Computer Science	• 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 behavior of simple programs	• 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 • Use search technologies effectively, appreciate how [search] results are selected and ranked
Information Technology	• Use technology purposefully to create, organise, store, manipulate and retrieve 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
Digital Literacy	• 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	• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behavior; identify a range of ways to report concerns about content and contact

Aims

Computing helps pupils take greater responsibility for their own learning in planning and organising their ideas. To produce and present work of a high standard. It also enhances creativity.

- To promote mutual respect through cooperating and collaboration.
- To work on skills across the curriculum with increased confidence and understanding
- Use computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology
- To enhance learning in all areas of the curriculum by using relevant apps and programs.
- To develop a good practice and understanding of e-safety and social media.
- Access 'programming' at a level appropriate to the individual learner.(Programming can be children sequencing, selecting and controlling technology)

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 information and communication technology.

Values

- That pupils should have access to a rich source of materials.
- Can use different types media (e.g. IPads, Interactive Touchscreen, Posters, Web pages) to enhance their learning.
- Can inspire, enthuse pupils and to promote creativity.
- That pupils should be offered a rich and diverse curriculum.
- That every pupil should have the knowledge to ensure their safety whilst using the internet.
- Has the flexibility to meet the individual needs and abilities of each pupil

Resources and access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible 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 report any faults as soon as they are noticed in the reporting spread sheet.

Assessment

At the start of each new unit pupils are told what they need achieve and learn (Expectations) and then continually observed throughout the unit. All work is saved to their own personal work space which is stored on the server.

Monitoring and evaluation

The computing leader is responsible for monitoring the standard of the children's work and the quality of teaching. The computing leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the computing, and for providing a strategic lead and direction for the computing in the school. The governors will ensure this policy is reviewed.

E-safety

E-Safety is an integral part of computing and staff follow the e-safety policy. E-Safety is a built in aspect of the computing curriculum.

Equal opportunities

We will ensure that all children are provided with the same learning opportunities whatever their social class, gender, culture, race, disability or learning difficulties. As a result we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to computing and all staff members follow the equal opportunities policy. Resources for SEN children and gifted & talented will be made available to support and challenge appropriately.

Security

- The 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'. All staff, volunteers and children must sign a copy of the schools AUP.
- Parents will be made aware of the 'acceptable use policy' at school entry
- All pupils will be aware of the school rules for responsible use on login to the network and will understand the consequence of any misuse.
- The agreed rules for safe and responsible use of computing and the internet will be displayed in all computing areas.