



POLICY ON

COMPUTING

Introduction

This policy reflects the Fenland Federation values and philosophy in relation to the teaching and learning of computing and the application and use of ICT. It details the framework within which teaching and nonteaching staff can operate and gives guidance on planning, teaching, and assessment. The policy should be read in conjunction with the National Curriculum for Computing which sets out what pupils in different year groups will be taught and how ICT can facilitate or enhance work in other curriculum areas and the Early Years Foundation Stage Framework. Computing is a Foundation Subject of the National Curriculum. This policy reflects the requirements of the revised National Curriculum from 2014.

All staff have a responsibility to implement this policy when delivering the Computing curriculum. This policy has the support and agreement of the governing body.

Vision

As computing is an increasing part of life today it is essential that all pupils gain the confidence and ability that they need in this subject, to prepare them for the challenge of a rapidly developing and changing technological world. The use of ICT will enhance and extend children's learning across the whole curriculum whilst developing motivation and social skills. We aim to expose children to the educational developments in computing and provide them with the opportunities to access to the most effective and emerging technologies.

The schools aims are:

- To enable children to become digitally literate, gaining confidence and enjoyment from their computing activities.
- To develop a whole school approach to computing ensuring continuity and progression in all strands of the Computing National Curriculum.
- To use ICT as a tool to support teaching, learning and management across the curriculum.
- To provide children with opportunities to develop their computing capabilities in computer science, digital literacy, information communication technology alongside E-safety.
- To ensure ICT is used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEND.
- To maximise the use of ICT in developing and maintaining links between the local community

including parents and other agencies.

The National Curriculum for Computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- 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.

In order to fulfil the above aims it is necessary for us to ensure:

- A continuity of experience throughout the schools both within and among year groups.
- The systematic progression through EYFS and Key Stages 1 and 2
- That all areas of the National Curriculum for Computing are given appropriate coverage.
- That all children have access to a range of ICT resources.
- That cross curricular links are exploited and are taught in addition to stand alone computing lessons.
- That children's experiences are monitored and evaluated.
- That resources and equipment are kept up to date as much as possible.
- That staff skills and knowledge are kept up to date.
- That e-Safety is taught every half term.

Teaching and Learning Objectives

Early Years Foundation Stage:

It is important in the Early Years 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, it can be problem solving with unplugged activities.

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 'paint' on the whiteboard or drive a remote-controlled toy. Outdoor exploration is an important aspect, supported by computational toys such as metal detectors, controllable traffic lights and walkie-talkie sets. Recording devices can support children to develop their communication skills.

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 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.

By the end of 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.

Equal Opportunities

We believe that all children have the right to access the Computing Curriculum and related ICT resources.

It is our policy to ensure this by:

- Ensuring all children follow the National Curriculum for Computing.
- Ensure equal access and fairness of distribution of ICT resources.
- Providing curriculum materials and software which are in no way class, gender or racially prejudiced or biased.

Differentiation

We provide suitable learning opportunities for all pupils by matching the challenge of the task to the individual needs and abilities of each pupil. We will achieve this in a variety of ways including:

- Grouping pupils by ability and setting different tasks for each ability group.
- Making reasonable adjustments to the way in which we deliver the computing curriculum to meet the needs of learners
- Assigning teaching assistants to individual/groups of pupils, where appropriate, to enable greater support.

Assessment

Pupils' knowledge and understanding of the primary computing curriculum will be assessed by:

- Ongoing formative assessment monitors pupil performance and progress during learning; the outcomes of which we will use to ensure that work matches the individual needs and abilities of pupils.
- Summative assessment review pupils' progress and abilities, and will be undertaken at the end of each unit, term and school year

Monitoring and evaluation

- Subject delivery will be regularly monitored.
- We appreciate that computers and ICT are rapidly developing, with new uses and technology being created all the time.
- We will review our web filters in order to ensure that pupils continue to be protected from inappropriate content online.

Health and Safety

The following guidelines are in place to promote high standards in health and safety:

- Online Safety lessons are delivered on a half termly basis to ensure that the learning is being embedded and the children are staying safe online at school and in the wider world. Internet access is planned to enrich and extend learning activities. The school has acknowledged the need to ensure that all pupils are responsible and safe users of the Internet and other communication technologies. Each class has been taught how to stay safe on the internet
- Children should not put plugs into sockets or switch the sockets on
- Trailing leads should be made safe behind the equipment
- Liquids must not be taken near computers or other electrical equipment
- Magnets must be kept away from all equipment
- All hardware will undergo safety checks
- Everyone will follow the 20-20-20 rule. Look away from the screen every 20 minutes or so and look at something around 20 feet away for about 20 seconds. Blink often to keep your eyes to stop them becoming dry.
- Keeping safe when using e media is taught systematically to all year groups

Security

- The Infotech technician will be responsible for regularly updating anti-virus software.
- Use of computers will be in line with the school's 'acceptable use policy'.
- Parents, carers and children will sign the 'acceptable use policy'.
- All pupils, parents and carers will be aware of the school rules for responsible use of computing and the internet and will abide by them.
- All staff, parents, carers and children who undertake home learning need to sign an agreement to abide by the school's rules relating to this.

Appropriate legislation, including copyright and data protection

- All software loaded on school computer systems must have been agreed with the designated person in the school.
- All our software is used in strict accordance with the licence agreement.
- We do not allow personal software to be loaded onto school computers.
- We are GDPR compliant

