



Sunny Bank Primary School



Computing Policy



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Introduction

We recognise that our pupils are living in a rapidly changing world in which computing, IT and digital literacy are playing an ever increasing role. The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. In an increasingly digital world there now exists a wealth of software, tools and technologies that can be used to communicate, collaborate, express ideas and create digital content. At Sunny Bank Primary School we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive, approach to the learning how computer systems work, the use of IT and the skills necessary to become digitally literate, further their learning and assist them in everyday life. We believe that increased IT and computing skills promote independent learning and gives greater access to a wide range of ideas and experiences

Rationale

The school believes that IT, computer science and digital literacy are:

- essential life skills necessary to fully participate in the modern digital world.
- allows children to become creators of digital content rather than simply consumers of it.
- provides access to a rich and varied source of information and content.
- communicates and presents information in new ways, which helps pupils understand, access and use it more readily.
- can motivate and enthuse pupils.
- offers opportunities for communication and collaboration through group working
- has the flexibility to meet the individual needs and abilities of each pupil.

Aims

- provide a relevant, challenging and enjoyable curriculum for IT and computing for all pupils.
- meet the requirements of the national curriculum programmes of study for computing.
- uses ICT and Computing as a tool to enhance learning throughout the curriculum;
- responds to new developments in technology;
- equips pupils with the confidence and capability to use IT and Computing throughout their later life;
- enhances learning in other areas of the curriculum using IT and Computing;
- develops the understanding of how to use IT and Computing safely and responsibly.

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.

Expectations

Early years

It is important in the foundation stage to give children a broad, play-based experience of IT and computing in a range of contexts, including off-computer activities and outdoor play. Computing is not just about computers. Early years learning environments should feature IT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities such as 'programming' each other using directional language to find toys/objects, creating artwork using digital drawing tools and controlling programmable toys. Outdoor exploration is an important aspect and using digital recording devices such as video recorders, cameras and microphones can support

children in developing communication skills. This is particularly beneficial for children who have English as an additional language.

By the end of key stage 1 pupils are taught to:

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions
- write and test simple programs • use logical reasoning to predict the behaviour of simple programs
- organise, store, manipulate and retrieve data in a range of digital formats
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

By the end of key stage 2 pupils are taught to:

- design and write 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; generate appropriate inputs and predicted outputs to test programs
- use logical reasoning to explain how a simple algorithm works 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
- describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Planning

Our curriculum was planned by a specialist using the National Curriculum document. Each term's units link to our six creative curriculum themes therefore promoting cross-curricular links. Online safety is addressed across our curriculum ensuring that pupils revisit key ideas across the year. Lesson plans can be adapted by class teachers as necessary for their class. 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.

Teaching and Learning

At Sunny Bank to enhance the teaching and learning of all curriculum areas within the school, teachers employ a range of strategies including:

- Demonstrating to the whole class/group using the IWB.
- Discussion with the whole class/group.
- Individual or paired working.
- Collaborative group work.
- Encouraging pupils to demonstrate new skills to others.

At Sunny Bank the computing scheme of work incorporates cross-curricular links and discrete Computing IT and digital literacy skills. Computing should be taught as part of our creative curriculum, whilst still teaching the discrete skills required. Children in Key Stage 1 and Key Stage 2 should all spend at least 1 hour per week studying computing. Children will spend additional time using computing and IT to support other subjects.

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 inform the IT manager of any faults as soon as they are noticed. Resources, if not classroom based, are listed and kept track of by the ICT manager.

Health and safety

The school is aware of the health and safety issues involved in children's use of IT and computing.

- All electrical appliances are maintained and annually pat tested.
- Damaged equipment should be reported to the IT manager who will arrange for repair or disposal.
- 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 the computers
- Age appropriate safety rules are displayed in the learning environment.
- An adult should always supervise children when they are accessing information via the Internet. Internet filtering is in place.
- Staff should ensure that the children are aware of the dangers of continuous use (e.g. eye/wrist strain etc.).
- Online safety forms an integral part of the curriculum and the school will deliver further education through assemblies and the annual sharing of our AUP with pupils and parents.

Online Safety

- At Sunny Bank staff and pupils are made aware of the importance of online safety and parents are asked to share our AUP with their child/ren and sign to acknowledge this.
- Staff, pupils or parents with concerns about online are to contact the lead DSL or Head of School.
- All adults in school are expected to report to the lead DSL immediately any online safety incidents and complete the relevant form ensuring that all incidents are logged.

- All staff are asked to annually read the AUP and Online Safety Policy and sign to acknowledge this.
- Weekly online monitoring reports are reviewed by the IT manager.

Equal opportunities

At Sunny Bank we are committed to providing effective learning opportunities for all children and apply the principles for inclusion to planning and teaching. Suitable learning challenges will be set for all children with the aim of maximising achievement for all children at an appropriate level for each individual.

Teachers will respond appropriately to children's diverse learning needs and be aware of the needs of differing genders, special educational needs, and disability, as well as different social, cultural and ethnic backgrounds.

At Sunny Bank teachers will be aware of overcoming the potential barriers to learning and assessment for individuals and groups and respond accordingly by making effective provision and liaising with appropriate staff.

At Sunny Bank we are committed to the principle of equality of opportunity and this will be reflected in the curriculum offered to children and in the conduct of staff and children.

Differentiation

The study of computing engages pupils in a variety of planned activities matched to their age, stage, ability and any special needs. Through differentiation teachers allow for the different pace at which individuals progress within set activities. The aim is to give all pupils the maximum opportunity for success and to reach their potential in the key areas of learning.

More Able Learners

We will provide for their needs through a framework of high quality first teaching which focuses on ensuring the children are challenged appropriately. In addition, we will focus on developing their learning behaviours, including, greater reflection, problem solving and enquiry, making connections, higher order thinking skills and independent learning.

Cross Curricular Links

As a staff we are all aware that IT and computing skills should be developed through core and foundation subjects. Where appropriate, IT and computing should be incorporated into schemes of work for all subjects. IT and computing should be used to support learning in other subjects as well as developing computing knowledge, skills and understanding.

Supporting SMSC through computing and IT

Spiritual:

- Explore creativity and imagination in the design and construction of digital products.
- Promote self-esteem through the presentation of their learning to others.
- Explore how ideas in computing have inspired others.
- Create digital products which incorporate their beliefs.

- Explore the benefits limitation and abuse of the internet.

Moral:

- Encourage good etiquette when using digital technology including mobile devices and with due regard to online safety.
- Encourage respect for other people's views and opinions.
- Encourage respect for IT/Computer equipment.
- Explore moral issues around the use of digital technology e.g. copyright and plagiarism.
- Explore the promotion of moral issues through their digital products.

Social:

- Encourage pupils to assist one another in problem solving.
- Encourage appropriate social behaviours in the classroom including listening whilst others are talking and generally interacting as a caring community.
- Encourage good practice and respect in the use of social networking.
- Group work within lessons.
- Exploring the advantages of social media sites as well as the problems such as: cyber bullying.

Cultural:

- Encourage the sensible use of digital technology.
- Encourage an awareness and appreciation of the digital divide and to be aware of differing cultural and spiritual or religious views towards the use of digital technology.
- Empowering pupils to apply their IT and computing skills and knowledge to the wider curriculum and acknowledge links between subjects.

Parental Involvement

Parents are encouraged to support the implementation of IT and computing where possible by encouraging use of IT and computing skills at home for pleasure, through home-learning tasks and use of the school website. Parents will be made aware of issues surrounding online and encouraged to promote this at home. Our AUP will be sent home annually.

Assessment

In lessons teachers assess progress towards the learning objectives they have set pupils and shared with them, and use their judgements to adjust future work.

Summative assessments are used to guide progress of individual pupils in computing. This will be done by observing children working, by listening to their responses and by examining work produced.

Monitoring and evaluation

Monitoring will be undertaken by the subject leader, members of the leadership team and governors. Monitoring will include lesson observations, pupil and staff interviews, planning and learning reviews.

Following monitoring activities feedback is given to staff about how they can strengthen their practice and CPD (professional development) opportunities built in where it would be

deemed valuable. These might take the shape of inputs during staff meetings, developmental lesson observations and coaching.

Role and Responsibilities of Computing Subject Leader

At Sunny Bank the computing Subject Leader has the responsibility of overseeing ICT within the school including:

- Formulating and updating the policy when appropriate.
- Ensuring staff are aware of the policy's content and that it matches classroom practice as far as possible.
- Ensuring appropriate resources are available.
- Disseminating information, as it is received from any external source, to staff and children.
- Supporting staff with computing-related issues when required.
- Having a knowledge of the quality of computing provision across the school
- Identifying and acting on development needs of staff members
- Monitoring expectations, provision and attainment across the school and providing feedback to develop practice further in order to raise standards.
- Reporting to parents, governors and others when appropriate

Role of Governors

At Sunny Bank governors determine, support, monitor and review the school policies. They support the use of appropriate teaching strategies by allocating resources effectively. They ensure that the building and equipment are safe. They monitor pupil attainment across the school and ensure that staff development and performance management promote good quality teaching.

Review

This policy will be reviewed by the IT leader, following discussions with the Head of School teacher and other colleagues. Any amendments will be presented to the staff and to the appropriate committee of the Governing Body before implementation.

Additional Policies

In Addition to the computing policy, the following policies are also available:

- Online Safety Policy
- Acceptable use Policies (KS1 and KS2)