



Benhurst Primary School Policy Statement

'Only my best is good enough for me'



Policy	Computing Policy
Implementation Date	October 2016
Review Date	October 2017

Introduction

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 Benhurst Primary School we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive, approach to learning how computer systems work, the use of ICT and the skills necessary to become digitally literate and participate fully in the modern world. The purpose of this policy is to state how the school intends to make this provision.

Aim

The school's aims are to:

- Provide a broad, balanced, challenging and enjoyable curriculum for all pupils.
- Develop pupil's computational thinking skills that will benefit them throughout their lives.
- Meet the requirements of the National Curriculum Programme of Study for Computing at Key Stage 1 and 2.
- To respond to new developments in technology.
- To equip pupils with the confidence and skills to use digital tools and technologies throughout their lives.
- To enhance and enrich learning in other areas of the curriculum using ICT and computing.
- To develop the understanding of how to use computers and digital tools 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 information and communication technology.

Rationale

The school believes that ICT, computer science and digital literacy:

- Are essential life skills necessary to fully participate in the modern digital world.
- Allow 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 both inside and outside of school.
- Has the flexibility to meet the individual needs and abilities of each pupil.

Objectives

Early years (see also early year's policy)

It is important in the foundation stage to give children a broad, play-based experience of ICT and computing in a range of contexts, including unplugged-computer activities and outdoor play.

Computing is not just about computers. Early years learning environments should feature ICT 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.

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 a sequence of instructions.
- Write and test simple programs.
- Use logical reasoning to predict and computing 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 recognize common uses of information technology beyond school.

By the end of key stage 2 pupils should be 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.

Resources and access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of ICT, computer science and digital literacy across the school. Teachers are required to inform the computing subject leader of any faults as soon as they are noticed. Resources if not classroom based are located in the computing suite or ICT cupboards. A service level agreement with Joskos is currently in place to help support the subject leader to fulfill this role both in hardware & software. Computing network infrastructure and equipment has been sited so that:

- Every classroom from Reception to Y6 has a laptop connected to the school network and an interactive SMART projector with sound and apple TV.
- Every Teacher has an iPad to support teaching and learning in the classroom.
- There are six mini laptops in each classroom.
- There is a Computing/ICT suite with sufficient computers for whole class access.
- There is an iPad Sync & Charge cabinet with 32 iPads for use across the school.
- Internet access is available in all classrooms.
- Each class from YR to Y6 has an allocated a lesson slot each week for teaching computing as a discrete subject.
- The Computing/ICT suite, mini laptops and iPads are available for use throughout the school day as part of computing lessons and for cross-curricular use.
- Pupils may use ICT and computing independently, in pairs, alongside a TA or in a group with a teacher.
- The school has a computing technician Mr. Dave Keeley.

Planning

We teach a balanced curriculum involving 'skills' lessons, based on the Switched on Computing units by Rising Stars, and using children's Computing capabilities to support teaching across the Curriculum. Rising Stars Switched on Computing fully meets the objectives of the National Curriculum for Computing and allows for clear progression in Computing. Pupil progress towards these objectives will be assessed by the class teacher.

Assessment and record keeping

Teachers regularly assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess Computing each term. The school also uses Rising Stars Assessment criteria as a guide. Assessing Computing is an integral part of teaching & learning and key to good practice.

Assessment should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. As assessment is part of the learning process, it is essential that pupils are closely involved. Assessment can be broken down into;

- Formative assessments are carried out during and following short focused tasks and activities. They

provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.

- Summative assessment should review pupils' ability and provide a best fit 'level'. Independent tasks provide a number of opportunities and scope for pupils to demonstrate their capability throughout the term. There should be an opportunity for pupil review and identification of next steps. Summative assessment should be recorded for all pupils - showing whether the pupils have met, exceeded or not achieved the learning objectives.

We assess the children's work in Computing by making informal judgments as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgment of the work for each pupil as to whether they have yet to obtain, obtained or exceeded the expectations of the unit.

The children's work is saved on the school network. Other work may be printed and filed within the subject from which the task was set.

Monitoring and evaluation

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring cycle. This may be through lesson observations, learning conversations, pupil discussion and evaluating pupil work.

We allocate time for the vital task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

Inclusion

We believe that all children have the right to access IT and computing. In order to ensure that children with special educational needs achieve to the best of their ability, it may be necessary to adapt the delivery of the computing curriculum for some pupils.

We teach ICT and Computing to all children, whatever their ability. Computing forms part of the National Curriculum to provide a broad and balanced education for all children. Through the teaching of Computing we provide opportunities that enable all pupils to make progress. We do this by setting suitable challenges and responding to each child's individual needs. Where appropriate ICT can be used to support SEN children on a one to one basis where children receive additional support.

Equal Opportunities

We will ensure that all children are provided with the same learning opportunities regardless of 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 SEND children and more able children will be made available to support and challenge appropriately.

The role of the Subject Leader

The Computing subject leader is responsible for the implementation of the Computing Policy across the school. Their role is to:

- Offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of computing.
- Provide colleagues opportunities to observe good practice in the teaching of computing.
- Maintain resources and advise staff on the use of digital tools, technologies and resources.
- Monitor classroom teaching or planning following the schools monitoring programme.
- Monitor the children's progression in Computing, looking at examples of work of different abilities.
- Manage the Computing budget.
- Keep up-to-date with new technological developments and communicate information and developments with colleagues
- Lead staff training on new initiatives.
- Attend appropriate in-service training
- Have enthusiasm for Computing and encourage staff to share this enthusiasm.
- Keep parents and governors informed on the implementation of Computing in the school.
- Liaise with all members of staff on how to reach and improve on agreed targets.
- Help staff to use assessment to inform future planning.

The role of the class teacher

Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning Computing and using their knowledge, skills and understanding of Computing across the curriculum.

They will plan and deliver the requirements of the National Curriculum for Computing to the best of their ability. We set high expectations for our pupils and provide opportunities for all to achieve, including girls and boys, pupils with educational special needs, pupils with disabilities pupils from all social and cultural backgrounds, and those from diverse linguistic backgrounds.

The class teacher's role is a vital role in the development of Computing throughout the school and will ensure continued progression in learning and understanding, and create effective learning environments.

The class teacher will also:

- Secure pupil motivation and engagement
- Provide equality of opportunity using a range of teaching approaches and techniques
- Use appropriate assessment techniques and approaches
- Set suitable targets for learning as outlined in the inclusion policy.
- Maintain up to date assessment records.

Staff training

The Computing subject leader will assess and address staff training needs as part of the annual development plan process or in response to individual needs and requests throughout the year.

Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the subject leader.

Teachers will be encouraged to use ICT and Computing to produce plans, reports, communications and teaching resources.

Health and safety

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

All fixed electrical appliances in school are tested by a Local Authority contractor every five years and all portable electrical equipment in school is tested by an external contractor every twelve months.

It is advised that staff should not bring their own electrical equipment in to school but, if this is necessary, equipment must be PAT tested before being used in school. This also applies to any equipment brought in to school by, for example, visitors running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people.

All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to a Computer Technician, Site Manager or Head Teacher who will arrange for repair or disposal.

In addition:

- 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.
- Magnets must be kept away from all equipment
- Online-Safety guidelines will be set out in the Online-Safety Policy & Acceptable Use Policy

Security

- We take security very seriously:
- The Computing Technician will be responsible for regularly updating anti-virus software.
- Use of ICT and Computing will be in line with the school's 'Acceptable Use Policy'. All staff, volunteers and children must sign a copy of the schools Acceptable Use Policy'.
- Parents will be made aware of the 'Acceptable Use Policy.' All pupils and parents will be aware of the school rules for responsible use of ICT and Computing and the Internet and will understand the consequence of any misuse.

Cross curricular links

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

Parental involvement

Parents are encouraged to support the implementation of ICT and Computing where possible by encouraging use of ICT and Computing skills at home for pleasure, through home-learning tasks and use of the school website. Parents are made aware of issues surrounding Online-safety and encouraged to promote this at home.