



Computing Policy

September 2023

Computing Policy

The Intent, Implementation and Impact of our Curriculum – Computing.

Intent

When planning and teaching computing at Baines Endowed, we believe that it is an essential part of the curriculum; a subject that not only stands alone but is woven and should be an integral part of all learning. Computing, in general, is a significant part of everyone's daily life and children should be at the forefront of new technology, with a thirst for learning what is out there. Computing within schools can therefore provide a wealth of learning opportunities and transferrable skills explicitly within the Computing lesson and across other curriculum subjects.

Through the study of Computing, children will be able to develop a wide range of fundamental skills, knowledge and understanding that will actually equip them for the rest of their life. Computers and technology are such a part of everyday life that our children would be at a disadvantage were they not be exposed to a thorough and robust Computing curriculum. Children must be taught in 'Computational Thinking' in order to provide them essential knowledge that will enable them to participate effectively and safely in the digital world beyond our gates.

Implementation

In Key Stage 1 the children will learn to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. They will be taught to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. They will be shown how to use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as recognise common uses of information technology beyond school. They will be taught to 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. Each of these skills will be taught through half termly units and shorter sessions.

In Key Stage 2 the children will design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. They will use sequence, selection, and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and programs. Children will be taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They will use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content. Children will be taught to select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals. They will use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Even our children in Early Years provision will be exposed to the understanding of internet safety as they explore the world around them and how technology is an everyday part of their learning and understanding of the world.

After research and investigation, we have found that the best way to deliver this is by following the Purple Mash Scheme of Work. It covers Curriculum 2014 objectives in a progressive and engaging way. It also offers support for staff who feel less confident in Computing.

Impact

After the implementation of this robust computing curriculum, children at Baines Endowed will be digitally literate and able to join the rest of the world on its digital platform. They will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – safely. The biggest impact we want on our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online.

As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become second nature.

Since using our new scheme of work, following interviews with children from across the school and comparing with interviews from previous years, the children have far broader experiences of the elements of the computing curriculum.

Purpose

This policy reflects the school values and philosophy in relation to the teaching and learning of and with Computing. It sets out a framework within which teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment. The policy should be read in conjunction with the scheme of work for COMPUTING which sets out in detail what pupils in different classes and year groups will be taught and how COMPUTING can facilitate or enhance work in other curriculum areas.

This document is intended for

- All teaching staff
- All staff with classroom responsibilities
- School governors
- Parents
- Inspection teams

Copies of this policy are kept centrally and are available from the headteacher and the subject leader (Mr Ben Leah).

Introduction

Computing prepares pupils to participate in a rapidly changing world in which work and other activities are increasingly transformed by access to varied and developing technology.

We recognise that Computing is an important tool in both the society we live in and in the process of teaching and learning. Pupils use Computing tools to find, explore, analyse, exchange and present information responsibly, creatively and with discrimination. They learn how to employ Computing to enable rapid access to ideas and experiences from a wide range of sources.

Our vision is for all teachers and learners in our school to become confident users of Computing so that they can develop the skills, knowledge and understanding which enables them to use appropriate Computing resources effectively as powerful tools for teaching & learning.

Aims

- To enable children to become safe, autonomous, independent users of Computing, gaining confidence and enjoyment from their Computing activities
- To develop a whole school approach to Computing ensuring continuity and progression in all strands Computing in the National Curriculum
- To use Computing as a tool to support teaching, learning and management across the curriculum
- To ensure Computing is used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities
- To maximise the use of Computing in developing and maintaining links between other schools, the local community including parents and other agencies.

Objectives

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

- a continuity of experience throughout the school both within and among year groups
- the systematic progression through key stages 1 & 2
- that the National Curriculum attainment targets are used to inform planning. These are used in conjunction with the Purple Mash Computing Scheme of work that is used throughout the school.
- that all children have access to a range of Computing resources

- that Computing experiences are focussed to enhance learning
- that cross curricular links are exploited where appropriate
- that children's experiences are monitored and evaluated
- that resources are used to their full extent
- that resources and equipment are kept up to date as much as possible
- that staff skills and knowledge are kept up to date

Curriculum Development & Organisation

Each class is allocated times with the laptops to accomplish their Computing scheme of work units. This scheme is integrated to ensure that delivery of Computing is linked to subjects and takes on board the statutory requirements of other national curriculum subjects. Each class is also allocated additional time to apply the use of Computing to other subject areas. A termly timetable is displayed within the staffroom.

This time is used to encourage children's research, and allow for the creative use of Computing in subjects. This is highlighted in the class plans.

Digital screens are located in all of the classrooms as well as the hall.

Teaching & Learning

Teacher's planning is differentiated to meet the range of needs in any class including those children who may need extra support, those who are in line with average expectations and those working above average expectations for children of their age.

A wide range of styles are employed to ensure all children are sufficiently challenged:

- Children may be required to work individually, in pairs or in small groups according to the nature or activity of the task.
- Different pace of working
- Different groupings of children - groupings may be based on ability either same ability or mixed ability.
- Different levels of input and support
- Different outcomes expected

The Computing leader will review teachers' Computing plans to ensure a range of teaching styles are employed to cater for all needs and promote the development of Computing capability.

Internet Safety

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. An internet access policy has thus been drawn up to protect all parties and rules for responsible internet use will be displayed in all classroom.

Although the school offers a safe online environment through filtered internet access we recognise the importance of teaching our children about online safety and their responsibilities when using communication technology.

We support this the Computing curriculum, using structured assemblies, the PSHE curriculum, targeting appropriate groups within school and as a means to deal with topical issues as they arise (e.g. Internet Safety Day, problems with social media use outside of school that is brought to our attention, using online 'Whisper' tool to address concerns rapidly and effectively)

Any instances of activity outlined in the schools 'Prevent Duty' policy are to be reported immediately to the computing leader and Headteacher. Staff should refer to the school's 'Prevent Duty' policy in such instances. The computing leader and Headteacher should ensure that any required mitigation is undertaken as soon as possible after the incident is reported.

Management Information Systems (MIS)

Computing enables efficient and effective access to and storage of data for the school's management team, teachers and administrative staff.

The school complies with LEA requirements for the management of information in schools. We currently use SIMs which operates on the school's administrative network and is supported by the LEA Westfield Centre.

All teaching staff have read only access to Assessment Manager and the SENCO module. Only trained & designated members of staff have authority and access rights to input or alter the data.

The school has defined roles & responsibilities to ensure data is well maintained, secure and that appropriate access is properly managed with appropriate training provided.

Assessment

Computing is assessed summatively using termly assessment grids informed by Lancashire's KLIPS grids.

Formative assessment occurs on a lesson by lesson basis based on the lesson objectives and outcomes in the Lancashire scheme of work. These are conducted informally by the class teacher and are used to inform future planning.

School liaison, transfer and transition

The school is connected to the Lancashire intranet which enables the transfer of information electronically. Email is now used frequently to liaise with the LEA, governing body, other schools and, where possible, parents. Future developments regarding our school management information system will enable the transfer electronically of data to aid transfer and transition to or between or within schools.

Inclusion

We recognise Computing offers particular opportunities for pupils with special educational needs and gifted and/or talented children and /or children with English as an additional language for example.

Computing can cater for the variety of learning styles which a class of children may possess.

Using Computing can:

- increase access to the curriculum
- raise levels of motivation and self esteem
- improve the accuracy and presentation of work
- address individual needs

We aim to maximise the use and benefits of Computing as one of many resources to enable all pupils to achieve their full potential. If the situation arises, the school will endeavour to provide appropriate resources to suit the specific needs of individual or groups of children.

Roles & responsibilities

Senior Leadership

The overall responsibility for the use of Computing rests with the senior leadership of a school. The Head, in consultation with staff:

- determines the ways Computing should support, enrich and extend the curriculum;
- decides the provision and allocation of resources ;
- decides ways in which developments can be assessed, and records maintained ;
- ensures that Computing is used in a way to achieve the aims and objectives of the school;
- ensures that there is a Computing policy, and identifies an Computing subject leader.

Computing Subject Leader

There is a designated Computing Leader to oversee the planning and delivery of Computing within the school.

The Computing Leader will be responsible for:

- raising standards in Computing as a national curriculum subject
- facilitating the use of Computing across the curriculum in collaboration with all subject coordinators
- providing or organising training to keep staff skills and knowledge up to date
- advising colleagues about effective teaching strategies, managing equipment and purchasing resources
- monitoring the delivery of the Computing curriculum and reporting to the headteacher on the current status of the subject

There is a clear distinction between teaching and learning in Computing and teaching and learning with Computing. Subject coordinators should identify where Computing should be used in their subject schemes of work. This might involve the use of short dedicated programs that support specific learning objectives or involve children using a specific application which they have been taught how to use as part of their Computing study and are applying those skills within the context of another curriculum subject. Subject coordinators work in partnership with the Computing coordinator to ensure all National Curriculum statutory requirements are being met with regard to the use of Computing within curriculum subjects.

The Classroom Teacher

Even though whole school co-ordination and support is essential to the development of Computing capability, it remains the responsibility of each teacher to plan and teach appropriate Computing activities and assist the co-ordinator in the monitoring and recording of pupil progress in Computing.

Monitoring

Monitoring Computing will enable the Computing coordinator to gain an overview of Computing teaching and learning throughout the school. This will assist the school in the self evaluation process identifying areas of strength as well as those for development

In monitoring of the quality of Computing teaching and learning the Computing coordinator will:

- Scrutinise plans to ensure full coverage of the Computing curriculum requirements
- Analyse children's work
- Observe Computing teaching and learning in the classroom
- Hold discussions with teachers and children
- Analyse assessment data

There is an annual review of this policy by the Computing subject leader.

A major review involving all staff will take place every three years.

As, currently the Computing curriculum has been 'devolved', we are developing Computing planning as part of our creative curriculum and providing more challenging work for children, utilising more appropriate software.

Learning Out of School Hours

Much of the software that the children are introduced to using PCs or iPads are available free of charge and downloadable on children's home systems. Teachers encourage children to use this at home and use the packages for their own entertainment and learning.

Health & Safety

We will operate all Computing equipment in compliance with Health & Safety requirements. Children will also be made aware of the correct way to sit when using the computer and the need to take regular breaks if they are to spend any length of time on computers. The school also has a 'Responsible Use of The Internet Policy' document. The Health and Safety at Work Act (1 January 1993), European Directive deals with requirements for computer positioning and quality of screen. This directive is followed for all administration staff. Whilst this legislation only applies to people at work we seek to provide conditions for all children which meet these requirements.

The school has an alarm system installed throughout. Each computer system has individual security against access to the management system. The files and network system are backed up regularly. The virus checker is updated regularly.

Home school links

Children are given the option to complete some homework tasks, when appropriate, using Computing out of school. Teachers are sensitive to the fact that children may not have access to Computing or may not wish to use it to complete tasks out of school. Any work brought into school must be scanned for viruses.

A school email address has been given to parents and is listed on the weekly newsletter. More parents are now using this to contact staff, arrange meetings etc.

We have a school website which promotes the school's achievements as well as providing information and communication between the school, parents and the local community.

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.

Please refer to the school's Data protection policy.

Effective and efficient deployment of Computing resources

Computing resources are deployed throughout the school to maximise access, to enhance teaching & learning and to raise attainment.

To enable regular and whole class teaching of Computing the school has approximately 30 laptops which all classes in key stages 1 & 2 use for at least 1 hour per week to develop their Computing skills.

To support the cross curricular nature of Computing at least one computer and interactive whiteboard are also located in each class. This is also used for additional tasks which require the use of Computing as well as presenting teaching materials for those classes with a digital projector.

The school's digital projectors / screens are located in classrooms and in the hall. They are permanently mounted.

A curriculum 'peer to peer' network enables internet access on all machines as well as storage and access to shared files (the H drive).

A curriculum pupil drive (the W drive) allows teachers to place read-only resources for children to use or modify and save in their own files.

Online Safety

Due to the increase in use of internet connected devices and more work being completed online, online safety is an essential part of all curriculum areas.

In Computing the children will be expected to complete work online in school or at home.

Online safety is taught as a discrete part of the computing curriculum and reinforced through regular, safeguarding assemblies.

Nevertheless, when the internet is used for Computing, children are reminded of the golden rules of online safety:

- Don't share personal information
- Be polite, kind and respectful
- Tell a trusted adult if you come across something that makes you feel uncomfortable or unhappy

References:

Online Safety Policy (2023)

Acceptable Use Policy (2023)

Mr Ben Leah (July 2023)