

# Brinsworth Howarth Primary

## Computing Policy



**May 2023**



## **BRINSWORTH HOWARTH PRIMARY SCHOOL** **COMPUTING POLICY**

### **Introduction**

The 2014 national curriculum introduces a new subject, computing, which replaces 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.

Computing is concerned with how computers and computer systems work, and how they are designed and programmed. Pupils studying computing will gain an understanding of computational systems of all kinds, whether or not they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines. The Acceptable Use of ICT Policy and the E Safety Policies should also be read in conjunction with this policy

ICT (principally but not exclusively computers) is used in many ways for the presentation, analysis and storage of information, but also to model, measure and control external events, to solve problems and to support learning in a variety of contexts, not least through the use of the Internet, across the whole curriculum. The term ICT is understood to incorporate IT.

### **Intent**

At Brinsworth Howarth we aim to equip pupils to use computational thinking and creativity to understand, adapt to and change the world. Through our diverse teaching of computing, we enable children to develop their computer science, information technology and digital literacy understanding and skills.

The four main areas of learning include:

- ❖ Working with Computers - Digital Literacy and Online Safety
- ❖ Create
- ❖ E Worlds and Digital Communication – Computational Thinking
- ❖ Digital Research and Information – Computers and Hardware

This will enable our children to participate in a rapidly-changing world where industry, work and leisure activities are increasingly transformed by technology. We enable them to find, explore, analyse, exchange and present information.

Furthermore, we focus on developing critical skills across a range of hardware and software for children to be able to use technology in an effective way. Through all of this, we ensure that E-Safety underpins all aspects of computing to ensure our children are prepared to use technology safely and responsibly.

Computing skills are a major factor in enabling our children to be confident, creative and independent learners in an ever-changing, diverse society. 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.

Our core aims of computing are to enable children to:

- ❖ develop computing capability in finding, selecting and using information;
- ❖ use computing for effective and appropriate communication;
- ❖ monitor and control events both real and imaginary;
- ❖ apply hardware and software to creative and appropriate uses of information;
- ❖ apply their computing skills and knowledge to their learning in other areas;
- ❖ use their computing skills to develop their language and communication skills;
- ❖ explore their attitudes towards computing and its value to them and society in general. For example, to learn about issues of security, confidentiality and accuracy.
- ❖ use technology safely and responsibly to be a positive digital citizen

These core aims are used to drive the teaching of computing across the whole school. Our ethos ensures that technology is used purposefully and effectively across the whole breadth of our curriculum. This enables pupils to use technological devices across all types of lessons for varying purposes to achieve outcomes in different ways. Enabling our pupils with access to technology freely and frequently allows them to opportunities to excel and showcase their talents in creative and independent ways.

## **ICT and the National Curriculum**

### **Entitlement**

#### **Early years**

It is important in the 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. 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 program a toy. Recording devices can support children to develop their communication skills. This is particular useful with children who have English as an additional language.

The new National Curriculum states that pupils should be taught to:

	<b>Key Stage 1</b>	<b>Key Stage 2</b>
<b><u>Computer Science</u></b>	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web</p> <p>Appreciate how [search] results are selected and ranked</p>
<b><u>Information Technology</u></b>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Use search technologies effectively</p> <p>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</p>
<b><u>Digital Literacy</u></b>	<p>Recognise common uses of information technology beyond school</p> <p>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or</p>	<p>Understand the opportunities [networks] offer for communication and collaboration</p> <p>Be discerning in evaluating digital content</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable</p>

	contact on the internet or other online technologies	behaviour; identify a range of ways to report concerns about content and contact
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Information Communication Technology no longer features in the EYFS curriculum however, here at Howarth we recognise the importance of allowing children to explore technology at a young age. Therefore, we have a Computing suit within the Foundation Stage unit where children can freely explore programmes suitable for that age group and develop their navigation and mouse skills in preparation for Key stage 1. Other areas of Computing such as algorithms, photography etc will be taught through provision as unplugged activities or incidental learning where appropriate.

Where possible, Computing will be integrated with other subjects through our creative curriculum. Learning in each class is linked to a journey. In both Key Stages the learning journey is taught over a full term.

### **Implementation**

As our aims of computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active, practical and immersive as possible. While at times, we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in computing is for individuals or groups of children to use technology to help them in whatever they are trying to study. We encourage our children to explore ways in which the use of computing can improve their learning in all subjects to strive for excellence.

At Brinsworth Howarth Primary School, computing will be taught both as a discrete subject, and in a cross-curricular way when the opportunity presents itself. The Computer Suite and the PCs distributed around the school will be used to help pupils access the Computing curriculum, along with a range of other resources such as programmable toys and iPads. Each class has two designated ICT Suite slots through the week. Children have a focused ICT skills lesson and a second lesson which is topic based each week. Each lesson last for 1 hour and each class has a designated slot for use of iPads however, staff are able to book out extra slots where needed.

### **Computing curriculum planning**

We use the national curriculum for computing as the basis for our curriculum planning. To break this down, we use a JMAT Scheme of Learning as the foundation and journey of learning to then adapt to the needs of our children.

#### **Planning process**

- ❖ The whole school overview maps out the computing topics that the children study in each half term during each year group.

- ❖ Our long term plans then break down the aims/objectives that are covered across each year group matched to the four main areas of learning.
- ❖ Our medium term plans break down each half termly topic with objectives and clear national curriculum links.
- ❖ The class teacher is responsible for the weekly plans which they then use to identify any differentiation needed for individuals.

The topics studied in computing are planned to build upon prior learning to ensure there is progression from EYFS up to Year 6. We build planned progression into the scheme of work, so that the children are increasingly challenged as they move up through our school.

In addition to this, the Computing subject leader and the Headteacher will continually monitor the resources required to deliver the Computing element of the new National Curriculum.

Coverage of the curriculum is evidenced through pictures, screen shots and explanations from children.

Throughout school, Junior Jam is used to teach coding on iPads for certain year groups and is booked in on numerous occasions during the year.

### **E-Safety**

Through the teaching and learning of computing, E-Safety is absolutely paramount and key to all of our teaching. E-safety underpins the learning and is referred to throughout the entire duration of that topic and all future topics. Children are continually taught about our school ethos of E-Safety and how they can stay safe using technology at home and in the wider world. E-Safety is also referred to during PSHE lessons to ensure it is at the forefront of our technology teaching to ensure our children are equipped with the knowledge and understanding of using technology safely and responsibly at all times. Outside providers are also asked to provide children with information on how they can stay safe online. Medium term planning includes different aspects of ICT curriculum spread across the year including e safety.

### **Resources**

Computing at Brinsworth Howarth is supported by a wealth of resources.

- ❖ We have an ICT suite with 16 desktop computers,14 laptops and a whiteboard which is timetabled for use.
- ❖ All classrooms have a desktop PC, interactive whiteboard and digital camera.
- ❖ From EYFS through to year 6, classes have their own visualiser.
- ❖ Curriculum software is located on class and curriculum computers under software icons or global.

- ❖ EYFS has five computers for children to use within the unit.
- ❖ The school hall is equipped with laptop, projector and Bluetooth sound system.
- ❖ We currently have 30 children's iPads that are available on a portable trolley for use in all classrooms and a set of new ones for use whenever needed. Staff have also been supplied with iPads for use within the classroom.
- ❖ Bee-bots are available as programmable toys particularly for EYFS and KS1 where necessary.
- ❖ We have 22 laptops available for the children to use.

### **Equal Opportunities and Differentiation**

All children will have equal access to the Computing Curriculum, regardless of gender, ethnicity, socio-economic background or special educational needs as outlined in the school's Equal Opportunities Policy.

In advance to this, teaching will consider the age, ability, readiness, and cultural backgrounds of children (and those with English as an additional language) to ensure that all can fully access computing education provision. This will be done through purposeful differentiation and drawing on expertise from the subject leader to make every lesson meaningful to every child. Specialised access software and hardware will be available for pupils with special educational needs. All reviews of provision for pupils with special needs should include consideration of a child's access to a computer.

We strive to create a curriculum where all pupils develop positive attitudes towards ICT, they should develop an understanding of the potential of ICT and show confidence and enjoyment in its use.

### **Assessment and Recording**

Teachers assess children's work in computing by making informal judgements as they observe them during lessons which informs planning for future lessons. During lessons self and peer assessment is used by the children so that they have opportunities to discuss what has worked well and how they think they can improve in the future. Pupils' work in ICT is assessed and recorded in line with the school policy on assessment. Ongoing assessment will take place during lessons and future planning will be informed using this assessment.

At the end of the year, a comment on each child's progress and ability to use a computer with confidence and competence across a variety of applications is made in the annual school report to parents.

### **Parents, carers and the wider community**

Parents and carers are always welcome at Brinsworth Howarth and we strive to work alongside our community to benefit the lives and learning of our children. We offer E-safety meetings and advice events to encourage safety at home. Parents are

encouraged to access information we share online through our website and to use online resources available at home to enhance the learning of children whilst not in school.

### **Impact**

At Brinsworth Howarth we aim to equip pupils to use computational thinking and creativity to understand, adapt to and change the world. Our curriculum allows children to experience and use technology in a wide range of situations purposefully and effectively to achieve across the curriculum spectrum. This enables our children to thrive and make excellent progress to achieve positive, meaningful outcomes in a range of ways across different hardware's and software's. Furthermore, as well as for bespoke purposes, our children use technology side by side with their day to day learning and lives within school so it is fully embedded in their way of living and learning. As technology advances, we equip pupils to use it in school, but also out of school, safely and responsibly to enhance their lives now and in their future lives and workplace.

### **Role of the Computing subject Leader**

The role of the Computing Subject Leader is:

- ❖ To seek to enthuse pupils and staff about Computing.
- ❖ To support staff in the planning, delivery and assessment of Computing.
- ❖ To monitor and review provision in line with the National Curriculum 2014.
- ❖ To collect evidence and monitor progression throughout school.
- ❖ To keep up to date with current developments in this subject and disseminate this information to staff where appropriate through staff meetings and informal discussion.
- ❖ To lead policy development and resource acquisition.
- ❖ Maintain resources needed for teaching of ICT
- ❖ Monitor Twitter page and school website.

### **Health and Safety**

- ❖ Children only use the internet when asked to by a member of staff. Then they must only use the sites provided. Children are not allowed to use social networking sites (These are blocked)
- ❖ Children are taught about safety online through assemblies and anti bullying week. They are made aware of how to keep themselves safe online.
- ❖ Equipment is pat tested before use. Damaged equipment should be reported to technician.



To ensure safe use the following procedures should be followed by all members of the school community who are using schools ICT equipment:

- ❖ Regular breaks should be taken when using the computer screen.
- ❖ Seating should be comfortable and the appropriate height for the user.
- ❖ The work station should have adequate room.
- ❖ The room should be the correct temperature – air conditioning is available in the ICT suit.
- ❖ All ICT resources should be stored safely to ensure easy and safe access for all users.
- ❖ Any faults with computer equipment should be reported to subject leader for the information of the technician. Staff should not attempt to fix faults themselves.

### **Access and Privacy**

- ❖ The school's computers should not be used at any time for downloading, copying or storing illicit or offensive material, nor should video, music or other files which take up a large amount of space be stored on our servers.
- ❖ Users wishing to download and copy large files to a CD should discuss it with the ICT Coordinator.
- ❖ No user should attempt at any time to install any software of any kind onto the school's network or onto any workstation connected to it, including screensavers. If a member of staff wishes to have software installed the agreement of the ICT Coordinator or Headteacher should first be sought, the licence checked and the relevant media handed to the ICT Coordinator to arrange for installation.
- ❖ All users of the network must be aware that their user areas and individual files may on occasion be accessed by the network administrators and files which contravene any part of this policy may be removed.
- ❖ Technician and co-coordinator will be responsible for regularly updating anti- virus software.
- ❖ Parents are encouraged to support implementation of ICT where possible by encouraging use of ICT skills during homework tasks and through use of the school website and Twitter page.

### **Review**

The Headteacher and staff will review this policy in accordance with the development priorities stated in the School's Development Plan. Any suggested amendments will be presented to the governing body for discussion.