

# BROOMFIELDS JUNIOR SCHOOL



## Computing Policy

**2024-2025**

### DOCUMENT STATUS

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Technology is very much a part of our everyday lives, and children have constant access to a wide variety of ICT. It is therefore important to help our children prepare for life within school and beyond by developing high standards in Computing through a broad curriculum. Increased Computing skills promote independent learning and gives greater access to a wide range of ideas and experiences. Through Computing the school aims to prepare pupils to participate in a rapidly changing world.

## **Aims**

- Meet the requirements of the National Curriculum programmes of study for computing.
- Provide all our pupils with an exciting, varied and relevant computing curriculum.
- Utilise computing to enhance learning across all areas of the curriculum.
- To give pupils the confidence and capability to use computing throughout their later life.
- To equip pupils on how best to become safe and responsible users of technology.
- To adapt to any new developments in technology.

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.

## **Learning with Computing at Key Stage 2**

The National Curriculum identifies that:

“A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. 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.”

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.

## **Rationale**

The school believes that Computing should achieve the following:

- Motivate and enthuse pupils.
- Give access to new and exciting programmes.
- Have the flexibility to meet all needs and abilities of our pupils.
- Enable pupils to present information in a variety of creative ways.
- Help pupils to focus on tasks.
- Increase collaborative learning and group work to achieve end goals.

## **Programme of Study**

All aspects of Computing (as addressed in the National Curriculum) are planned and taught as part of the school's Computing scheme, which predominantly follows the Knowsley scheme of work plus elements from Teach Computing as well as Rodo Codo for programming.

Careful planning will include activities which support learning for pupils with a diverse range of needs and abilities as well as ensuring continuity throughout the school and progression from one year to the next.

## **E-safety**

With the vast array of technology and ability to be online so quickly and easily, it is important that the children have a good understanding of how to be safe, sensible and responsible online. We regularly cover e-safety within Computing lessons and all year groups start the year covering this important topic. Throughout the year children are reminded to adhere to the SMART acronym and are encouraged to think about e-safety regularly. Safer Internet Day (February) is always introduced with a class assembly and covers a series of lessons that all classes can dip into as another focus on this important aspect of the curriculum. Children are also reminded about the age limits of key social media sites within these sessions, as well as the importance of being polite and friendly when sending any messages to each other.

Please also see the school's E-Safety policy which outlines in details our approach to ensuring online safety.

## **Monitoring & Review**

The effectiveness of planning is monitored at year team meetings and with discussions with the Computing Co-ordinator. Planning is reviewed annually and adapted as necessary.

The Computing policy is reviewed annually and the Development plan is reviewed prior to its inclusion in the school's strategic plan, also annually. The Computing Co-ordinator monitors the quality of teaching and learning as part of a yearly cycle of **monitoring linked to the School Self Evaluation Form**. Evidence of monitoring is kept in the Co-ordinator's file. Monitoring of lessons, work and pupil voice will be carried out by the Co-ordinator and senior leaders to ensure standards and consistency of approach.

An annual audit of resources (software and hardware) is carried out to enable long term planning to be effective and to provide staff and children with the most cost effective equipment to teach a broad Computing curriculum.

A portfolio of children's work is kept by the Computing Co-ordinator with the support of other staff as appropriate. The portfolio is available to all staff to moderate children's work and provides evidence of achievement and progress across the age ranges.

Twitter is also used a great resource to gather evidence of Computing across the whole school (#Broomfieldscomputing).

## **Teaching & Learning Styles / Differentiation**

We do give children direct instruction on how to use hardware or software in specific 'skills' lessons but we often use digital literacy to support teaching across the whole curriculum. This helps them develop a wider set of skills that will be useful in later life. We also encourage the children to explore ways in which the use of Computing can improve their work.

We recognise that all classes have children with widely differing Computing abilities. This is especially true when some children have access to Computing equipment at home, whilst others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by:

- setting common tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all tasks);
- grouping children by ability in the room and setting different tasks for each ability group;
- providing resources of different complexity that are matched to the ability of the child;
- using classroom assistants to support the work of individual children or groups of children;
- Utilising 'Computing experts' within the classroom who can assist other children.

## **Special needs**

At our school, we teach Computing to all children, whatever their ability. Computing forms part of our school curriculum policy to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the needs of children with learning difficulties. In some instances the use of Computing has a considerable impact on the quality of work that children produce; it increases their confidence and motivation. When planning work in Computing, we can take into account the targets in the children's Education, Health and Care Plan (EHCP). The use of Computing can help children in achieving their targets and progressing in their learning. The Computing Co-ordinator and the SEND Co-ordinator work closely to ensure that relevant Computing equipment is in place for those children who need it to support their work, for example: spelling

software, variety of differentiated mathematics software, microphones, headphones, recordable devices, digital cameras etc.

### **More Able and Talented**

There are many opportunities provided for our MAAT children within Computing, including an annual MAAT Computing Workshop run in conjunction with our cluster schools. Open ended activities, differentiated lesson planning and more complex skills teaching are some of the ways that we currently cater for our MAAT children.

### **Equal Opportunities**

We value equal opportunities for all of our children and believe that all Computing resources should be fully accessible to all learners, including those with special educational needs and disabilities.

We aim to provide a growing range of Computing equipment to all pupils, meeting a diverse range of individual needs. This is regularly monitored regardless of age & ability.

### **Computing Curriculum Planning**

The school has its own tailored scheme of work, based on the Knowsley scheme of work, Teach Computing and Rodo Codo. We have adapted the scheme to best fit the local circumstances of the school.

We carry out the curriculum planning in Computing in three phases (long-term, medium-term and short-term). These are linked, wherever possible, with the other curriculum topics to ensure more of an embedded Computing curriculum, helping the children to develop their Computing skills across a range of subject areas. The Computing Co-ordinator works alongside the head of each year group to ensure full coverage of the Computing curriculum. Our long-term Computing plans shows how teaching units are distributed across the year groups, and how these fit together to ensure progression within the curriculum plan.

Our medium-term plans give details of each unit of work, including key skills and objectives to be taught. The Computing Co-ordinator, alongside class teachers, is responsible for keeping and reviewing / adapting these plans as necessary.

The class teachers in each year group are responsible for writing the short-term plans with the Computing component of each lesson. These plans list the specific learning objectives of each lesson and the key skills and knowledge that the children will learn. The class teachers keep these individual plans and regularly discuss them with the Computing Co-ordinator on an informal basis. The Computing Co-ordinator is readily available to assist any teacher with their short-term planning for Computing. There is also a Computing lesson plan template saved on the school system to assist teachers with their planning and to provide uniformity with Computing planning.

The areas studied in Computing are planned to build upon prior learning. Whilst we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move up through the school.

### **Timetabling**

Year 6 and Year 5 have 45 chrome books, and 32 ipads, Year 3 and Year 4 have 30 chrome books, and 32 ipads in order to fully teach the curriculum. All these devices are readily available across the whole school ensuring each class has sufficient availability to have at least 1 hour of Computing per week. This is to ensure that each class can have a Computing 'skills' lesson every week, linked to

the area of the Computing curriculum they are learning. There are then ample resources (including hardware equipment) for the children to have additional cross curricular Computing. Class teachers are responsible for agreeing on a Computing timetable within their year group, to ensure resources are sufficiently shared.

### **Assessment & Recording**

Knowledge, skills and understanding will be assessed against our school's milestone indicators. Children will progress through basic, advanced or deep understanding and these will be recorded on the whole school tracking system.

A reference to children's overall progress and effort is made on the individual school report to parents in the Summer Term for Computing.

### **Resources**

As well as an interactive Promethean board in each classroom (2 classrooms have a SMART TV), plus 2 in bay areas for small groups use, the school has a huge variety of resources, including both hardware and software. As well as having 90 chrome books and 64 ipads, made mobile and easily accessible by trolleys, the school has a substantial selection of software programmes, designed to cover most aspects of the curriculum, as well as a selection of hardware in the Computing cupboards for more hands-on Computing lessons.

The Computing co-ordinator works with members of the SLT to ensure that there is financial planning for Computing. Additional hardware and new apps are purchased through the school following discussions with staff on a needs basis and new software is acquired as the need arises for it. The purchase of hardware and software may depend on the availability of finances.

### **Links with Infant and Secondary schools**

The Computing Co-ordinator meets with the Computing Co-ordinator at Cobbs Infant School (which directly feeds into our school) when necessary to discuss relevant Computing areas, such as resources, assessment and curriculum etc.

Our school directly feeds into Bridgewater High School, and the extensive curriculum that we follow enables our children to have a broad enough Computing education to stand them in good stead for their continued Computing development into secondary education. Meetings between both co-ordinators are organised whenever necessary to ensure a smooth transition from primary to secondary education.

Regular cluster and TCAT meetings are held for Computing subject leaders to foster co-operation and to share best practises.

### **Homework**

Homework for Computing is not set on a regular basis but children are encouraged to use ICT, when appropriate, to assist them in research or the presentation of information for example.

### **Health & Safety**

Teachers are made aware of the school's Health & Safety Policy, and regularly discuss this with the children in regards to Computing. The children are carefully supervised when collecting and returning Computing equipment, and are instructed on the safe handling of the school laptops and ipads i.e. always carried in both hands. Children are limited to no more than two hours continuous working on the laptops, with an emphasis on their posture whilst working. Pupils are supervised

closely during Computing lessons and access to the internet is restricted through the LA intranet provision.

All cabling, networking and electrical work is carried out by professionals. Regular annual PAT testing is carried out on all electrical equipment. All software used has the appropriate site licences.

Pupils will be made aware of:

- hazards and risks to themselves and others when using Computing e.g. IWB, Internet.
- the steps they take to control risks e.g. Rules for the Internet, Rules for the IWB.
- the action to be taken if risks occur
- how to manage their environment to ensure health and safety of themselves and others.

For further information please see the school's Health & Safety policy and the e-safety policy in regards to children's safety when using the internet etc.

### **Security**

All laptops and ipads within school are allocated a number. All badge numbers are recorded. All devices are stored in trolleys overnight, which are then locked either by key or by padlock, and then locked away in secure classrooms. The Computing network was located in a specially chosen room for its security and is locked behind 2 doors. Insurance is covered through the school's normal insurance arrangements. The system is backed up regularly and virus protection systems are in place.

### **Maintenance**

The network is managed, maintained and supported by AbTec. Regular fortnightly visits have been set up for technicians to attend the school site and maintain the system and any other Computing issues that arise.

### **Professional Development**

Delivering a successful Computing curriculum depends as much on well trained and confident teachers as on appropriate hardware and software. We recognise the need for, and will endeavour to provide on-going staff training to encourage professional development and ensure a well-balanced delivery in the classroom. The Computing Co-ordinator has already provided several INSET sessions as well as informal training sessions to members of staff in a variety of Computing areas. There have also been external training sessions organised to help develop staff's capability. Staff also have access to Computing resources both on their laptop and from the hardware cupboards in school for personal practise and familiarisation.

The Computing Co-ordinator will organise further training sessions, both informal and by external agencies, as and when needs arise to assist with the continued development of staff's Computing skills.

### **Parents and Carers**

Our school has links with the community through our new, regularly updated school website ([www.broomfieldsjunior.co.uk](http://www.broomfieldsjunior.co.uk)) and Twitter feed (@BroomfieldsJnr). Our website has information, resources and links for parents and carers. All newsletters are regularly updated onto the site as well as dates, key events and recent activity within the school. We encourage our parents and carers to be kept well informed of Computing developments in our school, which our PTA regularly do, especially as they have provided funding for Computing equipment recently. Parents and carers are invited to speak to the Computing co-ordinator or view our policies if the need arises. Parents have

the opportunity to view our Internet policy and our e-safety policy online and to withdraw their children from Internet access at school if they so wish.

### **Review**

The policy will be reviewed annually with the aim of meeting any new developments and initiatives both nationally and locally.