



# **Brunswick Park** Primary School

*Learning for living through Respect, Support and Challenge*

## **Computing Curriculum Policy**

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This policy should be read in conjunction with other school policies including:

- [Anti-Bullying Policy](#),
- [Behavioural and Learning Policy](#),
- [Relationships and Sex Education Policy](#),
- [Safeguarding Policy](#),
- [Data Protection Policy](#).

## TEACHING OF COMPUTING

### Introduction

This policy aims to cover the different elements of Computing and ICT at Brunswick Park Primary School. Guidelines have been drawn up to ensure that all stakeholders are aware of their expectations and are able to stay safe when using the hardware and software in school. The equipment and resources within school are provided to enhance pupils' learning and to aid staff in their teaching of the curriculum. This policy sets out a framework for how Computing will be taught, assessed and monitored throughout the school and should reflect the school's ethos and philosophy.

### Legislation and Guidance

This policy reflects the requirements of the [National Curriculum programmes of study](#), which all maintained schools in England must teach. It also reflects requirements for inclusion and equality as set out in the [Special Educational Needs and Disability Code of Practice 2014](#) and [Equality Act 2010](#), and refers to curriculum-related expectations of governing boards set out in the Department for Education's [Governance Handbook](#). In addition, this policy acknowledges the requirements for promoting the learning and development of children set out in the [Early Years Foundation Stage \(EYFS\) statutory framework](#).

### Aims/Rationale

Computing is part of almost every part of modern life, and it is important that our children are taught how to use its tools safely. We believe that it is important for pupils, staff and the wider school community to have the confidence and ability to use Computing's tools to prepare them for an ever-changing and rapidly developing world.

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 (ICT).

To enable all our staff and pupils to be confident, competent, independent users and learners of Computing at Brunswick Park Primary School, we aim:

- To use Computing where appropriate to ensure pupils are motivated and inspired in all areas of the Curriculum where possible.
- To ensure pupils are challenged in their use of Computing and are provided with exciting, creative ways in which to share their learning.
- To use tools available to ensure children have the ability to work independently and collaboratively to suit the needs of the situation.
- To develop the Computing competence and skills of pupils through Computing lessons and provide them with the chance to consolidate these in a cross-curricular context where possible.
- To provide all staff with the training and support to ensure that they can, and have the confidence to, use Computing where possible in all aspects of school life.
- To use Computing as a form of communication with parents, pupils and the wider community.

## **Intent of the School's Computing Curriculum**

We have chosen the Purple Mash Computing Scheme of Work from Years 1-6. The scheme of work supports our teachers in delivering fun and engaging lessons which help to raise standards and allow all pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. Elements of the Computing Curriculum such as Online Safety are also taught through [Relationships and Sex education](#) sessions as necessary. Furthermore, it gives excellent supporting material for less confident teachers. Through Computing curriculum, we:

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Give children access to a variety of high-quality hardware, software and resources.
- Instil critical thinking, reflective learning and a 'can do' attitude for all our pupils, particularly when engaging with technology and its associated resources.
- Teach pupils to become responsible, competent users of data, information and communication technology.
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.

In the Early Years Foundation Stage, it is important to give children a broad, play-based experience of technology in a range of contexts. Children can gain confidence, control and language skills through different play-based opportunities. The Early Years learning environments should feature ICT experiences both inside and outside. This could include:

- Using programs such as, Busy Thing & Purple Mash to develop skills within all areas of the EYFS curriculum.
- Searching for information of interest on the internet with the support of an adult.
- Playing learning games on the interactive whiteboard.
- Exploring an old typewriter or other mechanical toys, such as, old computers and CD players.
- Using programable toys, such as Beebots.
- Watching a video clip to support learning on an IWB.
- Listening to music to support learning.

The [National Curriculum for Computer](#) states that 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.

### **Implementation of the School's Computing Curriculum**

We recognise the fact that the effectiveness of any resource is dependent upon how and why it is being used. We believe that the appropriate use of good quality resources will enhance good teaching. Children have access to a range of resources including Chrome books. The Purple Mash Scheme of Work ensures there is a clear progression of skills fully embedded across both key stages.

Computing is taught across the curriculum and wherever possible, is integrated into other subjects. Each class from Years 1-6 has a weekly stand-alone session during which the Scheme of Work from 'Purple Mash' is used to provide a comprehensive programme for the teaching and assessment of Computing across Key Stages 1 and 2. All activities are mapped/linked to the new National Curriculum for Computing. Teachers can adapt 'Purple Mash' units to meet the needs of their children, including those that are disadvantaged and pupils with SEND. The computing curriculum helps contribute to the knowledge and cultural capital that pupils need to succeed in life.

When in some academic years, it may be the case that year groups are mixed. The approach used to teach the computing curriculum to these year groups will be left to the teachers (in collaboration with the Subject lead and SLT) to decide, how best to deliver the computing curriculum to meet the needs of the children in the mixed year groups.

Our key principles of implementation include:

- Teachers have good knowledge of the computing curriculum and subjects they teach.
- Teachers present subject matter clearly and promote appropriate discussions.
- Teachers regularly check pupils' understanding, identify and correct misunderstandings and provide clear, direct feedback.
- Teachers to support pupils where possible to transfer the knowledge they have learnt to enhance their learning in other areas.
- Teachers use assessment to check pupils' knowledge and understanding, and that they have not simply memorise facts. This also helps to inform teaching and planning.
- Teachers create an environment that allows pupils to focus on learning.

Further information is available in the [OFSTED Education Inspection Framework](#).

### **Impact of the School's Computing Curriculum**

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. By the time they leave the school, children will have gained key knowledge and skills in the three main areas of the computing curriculum:

- Computer science (programming and understanding how digital systems work),
- Information technology (using computer systems to store, retrieve and send information) and
- Digital literacy (evaluating digital content and using technology safely and respectfully).

Children becoming digitally literate and using technology to express themselves will enable them to participate in the digital world. The objectives within each strand support the development of learning across the key stages, ensuring a solid grounding for future learning and beyond.

The school implements a broad and balanced Computing curriculum through Purple Mash, as a result:

- Pupils develop their knowledge and skills across the Computing curriculum and, as a result, achieve well.
- The Computing curriculum is covered in the required depth within the statutory and non-statutory guidance of the national curriculum.
- Pupils have the opportunities to return to different subject areas within the Computing curriculum and link them together to further develop and extend their knowledge.
- High quality programs within Purple Mash and generally are used to stimulate children's learning.
- Pupils are positively engaged learners eager to share their learning with others.
- Pupils develop basic skills that prepared them for their next stage of learning as they progress through the Key Stages.
- The skills pupils learn within the Computing curriculum have positive impact on other areas of learning.
- Pupils gain a knowledge of technology that prepares them for their continuing journey in education.
- Parents' are actively engaged with the school that goes beyond the classroom and promotes home study and remote learning.
- The curriculum being fully inclusive for all, pupils have time and opportunities to work alongside their class peers who may have additional needs, this creates a strong sense of care and inclusivity.

### **Assessment**

Computing is assessed in a number of ways using formative and summative assessment. Formative assessment is undertaken during each topic in Computing. Through using the progression of skills documents teachers can evaluate progress and can be used to inform future planning. Summative assessment is undertaken in line with the assessment cycle (See Assessment Policy). Using electronic work samples from children's digital folders on Purple Mash, teachers can make judgements to aid assessment. Otherwise, teacher's knowledge and judgement are used to assess progress.

### **Equal Opportunities, Inclusion and SEND**

We enable all children to achieve to their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, children with English as an additional language and children with SEN Support and an EHCP.

All pupils throughout the school are provided with opportunities to access the Computing curriculum at an appropriate level. Where necessary, we will endeavour to make adaptations to the environment or provide software that will enable all learners to achieve. Chromebooks are used to enable pupils to access the broad curriculum.

'Communicate in Print' is available for all staff and pupils to use to create visual communication resources to support learning.

Children that are working below age related expectations will receive additional support where possible. The provision of Computing and the use of technology can have a positive impact on the quality of work that children produce. This can increase confidence and motivation, allowing access to parts of the curriculum and resources that may not have otherwise been available to them.

### **Monitoring and evaluation**

The subject leader will monitor teaching and learning in Computing, ensuring that the content of the National Curriculum is covered. All teachers to keep evidence of children's work using Purple Mash. This evidence must contain work samples from all areas of the curriculum taught for the year group.

The subject leader conducts termly Learning Walks and Digital Work Looks, that scrutinises different aspects of teaching and learning within the Computing curriculum. A Key Line of Enquiry is set, evidence to gathered and feedback is given to those involved. At the end of the academic year the subject leader will conduct a targeted pupil survey to ascertain understanding and enjoyment of Computing within the school.

This policy will also be reviewed regularly to ensure that it complies with the latest legislation, guidance and best practice. Any changes made to this policy will be communicated to all teaching staff by the subject leader or SLT.

### **British Values**

Our school reflects British values (see [Guidance on promoting British values in schools](#)) through Computing by aiming to nurture our children on their journey through life so they can grow into safe, caring, democratic, responsible and tolerant adults who make a positive difference to British society and to the world. We encourage our children to be creative, unique, open-minded and independent individuals, respectful of themselves and of others in our school, our local community and the wider world.

#### Democracy

- Listening to everyone's ideas in order to form a majority.
- Working as part of a team and collaborating to use computing devices effectively.

#### Rule of Law

- Developing knowledge of lawful computing behaviours and E-safety.
- Demonstrating respect for computing laws and E-safety.

#### Individual Liberty

- Taking responsibility for our own computing behaviours.
- Challenging stereotypes and bias.
- Exercising rights and personal freedoms safely through knowledge of E-safety.

#### Respect and Tolerance

- Showing respect for other cultures when undertaking research using computing devices.
- Providing opportunities for pupils of all backgrounds to achieve in computing.

## **ROLES AND RESPONSIBILITIES**

### **Senior Leadership Team**

- Provide and allocate resources throughout the school in accordance with the School Improvement Plan, Computing Subject Leader action plans and timescales.
- Ensures that the Computing Subject Leader(s), Computing Technician and teachers fulfil their roles as listed below and in accordance with job descriptions and appraisal objectives.

### **Computing Subject Lead**

- Is responsible for monitoring the teaching of Computing throughout the school.
- Oversee planning and assessment in all Year Groups and is responsible for raising standards in Computing.
- Provides training (when appropriate) and support (by external trainers).
- In conjunction with the Computing Technician and SLT are responsible for strategic planning and guidance for future purchasing.

### **Computing Technician**

- Is responsible for keeping an up-to-date hardware inventory and ensuring the school has the appropriate number, and level, of software licenses for all software.
- Is responsible for managing equipment and providing guidance for future purchasing of hardware.
- Is responsible for purchasing and ordering hardware and software for the school, liaising with the above.
- Updates logins, usernames etc. for all staff and pupils.
- Ensures faults logged in the Computing fault log are rectified in a timely manner.

### **Teachers**

- Plan and teach Computing and link it where possible/appropriate with other subjects.
- Plan and teach using the 'Purple Mash' units of work and assess Computing using the schools assessment procedure.
- Respond and report any Online Safety issues, including cyber-bullying, to a member of the Safeguarding Team (Thomas Moudiotis, Susannah Bellingham and Caroline Campion) and recorded on Cpoms.
- Whilst checking of personal sites, e.g. email, is permitted during non-directed times, teachers should be aware that this should only happen briefly and that they should be extra vigilant, ensuring they are logged off appropriately (of both the website and their computer).
- Must agree to and follow the Acceptable Usage Policy.

### **Support Staff**

- Respond and report any Online Safety issues, including cyber-bullying, to a member of the Safeguarding Team (Thomas Moudiotis, Susannah Bellingham and Caroline Campion) and recorded on Cpoms.
- Whilst checking of personal sites, e.g. email, is permitted during non-directed times, teachers should be aware that this should only happen briefly and that they should be extra vigilant, ensuring they are logged off appropriately (of both the website and their computer).
- Must agree to and follow the Acceptable Usage Policy.

### **Visitors**

- School visitors should abide by the guidelines set out for staff and ensure that they use ICT equipment safely.



## **Pupils**

- Should ensure that they use computers and equipment appropriately at all times.
- Should report any Online Safety or cyber bullying issues to either their teacher or an appropriate adult.
- Follow the school's [Behaviour and Learning Policy](#), Online Safety Policy and [Remote Learning Policy](#) when working online.
- Adhere to the school's [Anti-Bullying Policy](#) when using technology.
- Follow the SMART rules and guidelines that are displayed in every classroom, the Computing suite and around the school.

## **Parents and Carers**

- Should remain vigilant regarding software, internet content and websites their children access.
- Use the [Parents Guide to Online Safety Leaflet](#) provided by the school.
- Attend the Online Safety training provided by the school, including web links.
- Encourage their children to follow the SMART rules which are provided on the back of the [Online Safety Leaflet](#).

## **The School**

We aim to ensure that parents, carers and pupils are fully aware of ways in which the internet and Computing can be used productively and safely. We will always ensure that we provide children with opportunities to achieve when using ICT and will ensure our curriculum is challenging and relevant. Before launching any system or initiative, we will make sure that the children's safety is our first consideration and will keep parents/carers informed as appropriate through newsletters and the website. Annual training for staff and information sessions for parents/carers and pupils will be delivered by the appropriate staff or external trainers. Online Safety is promoted through information leaflets and age-appropriate Online Safety assemblies. Online Safety lessons will also be taught in conjunction with the 'Purple Mash' scheme of work. Online Safety is a focus during Anti-Bullying Week and there is a yearly Safer Internet Day. Further information see [Anti-Bullying Policy](#), [Behavioural and Learning Policy](#), and [Social Media Policy](#).

## **Remote Learning – Contingency Planning**

The roles, responsibilities and procedures for all staff regarding remote learning at the School in the event of a whole school closure due to virus pandemic or extreme weather are set out in the 'Remote Learning Policy'. The full policy can be found [here](#). If the Contingency Plan is implemented the school's curriculum will be taught via Google classroom.

Google Classroom provides a safe and secure online space to receive and share learning, and a place to connect with school staff and classmates. In Google Classroom, school staff can assign work to the children online. Google Classroom is accessible from any digital device with internet access and a web browser. Parents/carers can login and view the assignments that have been set, if their child has completed and submitted them, and any feedback that they may have received.

## **Review**

This policy will be reviewed annually by the Governing Body.

