

**Twiss Green**

**Community Primary School**

**Policy for Computing**

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| Date of Approval: |  |
| Signed: Chair of Governing Body |  |
| Signed: Acting Head Teacher | **Katy Fuller**  |
| Signed: Computing Leader | **Joanna Dunn** |
| To be reviewed by: | September 2022 |

At Twiss Green the children learn the skills, knowledge and understanding of computing to ensure they learn the fundamental skills to be able to adapt and remain safe in a continuously developing digital world. The policy has been developed by the Computing leader Miss Dunn in consultation with the SENCO, leadership team and teachers. Guidance from consultants and pupil, parent and staff voice will shape and continue to shape this policy. The policy is based on government recommendations/statutory programmes of study.

Due to the fast pace of technology innovation and constantly emerging trends, it is recommended that this policy is reviewed, at minimum, at the start of every academic cycle.

**Aims of the Computing Curriculum**

At Twiss Green we believe every child should have the right to a curriculum that champions excellence; supporting pupils in achieving the very best of their abilities. We understand the immense value technology plays not only in supporting the Computing and whole school curriculum but overall in the day to day life of our school and most importantly the futures of our children.

We believe that technology can provide: enhanced collaborative learning opportunities; better engagement of pupils, easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

# **Our aims**

# **Intent**

* To provide a purposeful, rich, exciting and challenging Computing curriculum and creative, cross-curricular approaches to develop essential computing skills and knowledge.
* 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 unplugged resources.
* To promote an attitude of learning centred on enquiry and engagement and instill critical thinking, reflective learning and a ‘can do’ attitude for all of our pupils, particularly when engaging with technology and its associated resources.
* Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
* To promote self-care and wellbeing by deepening understanding of online safety and appropriate use of technology by equipping 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 and others.
* To provide technology solutions for forging better home and school links.
* To exceed the minimum government recommended/statutory guidance for programmes of study for computing and other related legislative guidance (online safety).
* We aim for the children to know more, remember more and understand more about Computing.

**Implementation**

* All staff are responsible for overseeing the planning and delivery of Computing within their own classes. Delivery will take place both discretely and as part of cross-curricular themed work.
* Staff will follow the guidance set out in the e-safety policy and actively promote online safety routinely.
* All staff are responsible for checking the functionality of hardware and software in order for lessons to be effectively resourced and to report technical/resource issues to the IT technician and/or subject coordinator.
* Teachers will deliver the Twiss Green curriculum, developed through the use of the Purple Mash Scheme, to ensure the coverage and progression required in the National Curriculum.
* The Computing section of The Rainbow Continuum will be used to develop the children's knowledge, skills and understanding and to encourage breadth and mastery.
* Children will have the opportunity to work individually, in groups and as a whole class.
* Teachers are responsible for assessing the children's acquisition of skills and their understanding of Computing in line with the assessment policy and planning learning activities accordingly.

**Safeguarding: Online safety**

Online safety has a high profile at Twiss Green Primary for all stakeholders. We ensure this profile is maintained and that pupil needs are met by the following:

* A relevant up-to-date online safety curriculum which is progressive from Early Years to the end of Year Six.
* A curriculum that is threaded throughout other curriculums and embedded in the day-to-day lives of our pupils.
* Training for staff and governors which is relevant to their needs and ultimately positively impacts on the pupils.
* The introduction of scheduled pupil voice sessions and learning walks to steer changes and inform training needs.
* Through our home/school links and communication channels, parents are kept up to date with relevant online safety matters, policies and agreements. They know who to contact at school if they have concerns.
* Pupils, staff and parents have Acceptable Use Policies which are signed and copies freely available.
* Our online safety policy clearly states how monitoring of Online safety is undertaken and any incidents/infringements to it are dealt with.
* Filtering and monitoring systems for all our online access.
* Data policies which stipulate how we keep confidential information secure.

**Curriculum**

As a school, we have chosen the Purple Mash Computing Scheme of Work from Reception to Year 6. The scheme of work supports our teachers in delivering enjoyable and engaging lessons which help to raise standards and allow pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. It provides immense flexibility, strong cross-curricular links and integrates perfectly with the 2simple Computing Assessment Tool. Furthermore, it gives excellent supporting material for less confident teachers.

**Non-Negotiables**

Alongside the Purple Mash Computing Scheme, children will be taught basic computing skills across each year at an appropriate level. These skills will include the use of Microsoft programmes (Office), use of search engines, saving and opening files, manipulating technological gadgets, use of a variety of apps and programmes and sharing information.

**Early Years**

We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts. We believe the following:

* Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in role-play.
* Pupils gain confidence, control and language skills through opportunities to ‘paint’ on the interactive board/devices or control remotely operated toys.
* Outdoor exploration is an important aspect, supported by ICT toys such as metal detectors, controllable traffic lights and walkie-talkie sets.
* Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language.

**Key Stage One outcomes**

* 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.
* 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.

**Key Stage Two outcomes**

* 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 can 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.

**Assessment**

* Pupil attainment is assessed using the 2simple Computing Assessment Tool for Years 1 to 6. The tool enables staff to accurately identify attainment of pupils through the detailed exemplification it has for each key learning intention.
* Teachers keep accurate records of pupil attainment by entering data using the 2Simple Computing Assessment Tool.
* Tracking of attainment by using the 2Simple Computing Assessment Tool is used to inform future planning.
* Children are encouraged to self, peer and group assess work in a positive way using online collaborative tools such as 2Blog in Purple Mash.
* Formative assessment is undertaken each session/interaction in Computing and pupils are very much encouraged to be involved in that process. Through using the progression of skills documents from 2Simple, both teachers and pupils can evaluate progress. Features such as preview and correct in Purple Mash are used to further support feedback and assessment.
* Summative assessment is undertaken in line with the assessment cycle (see assessment policy). Using electronic work samples from children’s portfolios on Purple Mash, teachers enter judgements about samples into the 2Simple Computing Assessment Tool.
* Work from a range of classes and abilities is shared using the Noticeboard feature in Purple Mash.

**Resources**

* All resources are procured with the underlining considerations of value: The extent at which the resource impacts on learning and the material cost of this. Protocol details for procurement can be found in the school finance policy.
* Resources are suitably maintained and replenished when needed, which is overseen by the Computing Leader.
* An itemised list of all resources is shared with staff and kept up to date by the Computing Leader.
* Audits of school resources are conducted by the Computing Leader, which informs bidding for budgets allocations.
* The Computing Leader keeps up to date with the latest technology resources and will make informed decisions about possible procurement of them through their own research.
* Suggestions for getting the very best out of the resources are made available to teaching and support staff by the Computing Leader.
* The Computing Action Plan details foreseen future procurement which is shared with senior leaders before the budget setting period.
* A range of resources is available which successfully supports delivering the Computing curriculum and enables all learners to reach their full potential.
* EYFS and Key Stage One have access to the class sets of iPads as their primary device for accessing computing. If needed, there are a small number of laptops available in the Computer Suite.
* Each class in Key Stage Two is allocated 15 laptops in their classrooms to be used for computing. It can be arranged with Key Stage One to borrow and make use of the set of iPads.
* Each class has one allocated class iPad for recording, photographing and used in conjunction with Seesaw.
* Additional resources include (but are not limited to): Easysense sensors and data-loggers, digital cameras, Beebots, Lego WeDo, Makey Makey
* EYFS, as part of their curriculum, have remote control cars, mini mobile phones, binoculars, a kidizoom camera and children’s metal detectors.

**Inclusion**

* At Twiss Green Primary, we aim to enable all children to achieve their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, EAL speakers and SEN statements and non-statemented. We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities. With this in mind, we will ensure additional access to technology is provided throughout the school day and in some cases beyond the school day.

**Monitoring, Evaluation and Feedback**

* Monitoring standards of teaching and learning within Computing is the primary responsibility of the Computing Leader. All teachers are expected to keep an online portfolio or track children’s work using Purple Mash. This portfolio must contain work samples from all areas of the curriculum taught for the year group. Details of monitoring and evaluation schedules can be found in the Computing Action Plan and School Monitoring Schedule.

Monitoring will be achieved through:

* Work scrutiny
* Learning walks
* Observations
* Pupil voice
* Teacher voice
* Reflective teacher feedback
* learning environment monitoring
* Dedicated Computing Leader time

Evaluation and feedback will be achieved through:

* Dedicated Computing Leader time.
* Using recognised standards documentation for end-of-year expectations.
* Using recognised national standards for benchmarking Computing provision in primary schools.
* Written feedback on evaluation of monitoring activities to be provided by the Computing Leader in a timely manner.
* Feedback on whole school areas of development in regard to Computing to be fed back through insets/AOB/staff meetings.

**Roles and responsibilities**

Due to technology extending beyond the National Curriculum for Computing, there are key roles and responsibilities specific members have.

*(Acting) Headteacher*

* Monitoring the implementation of the Computing Policyand its associated policies such as the Safeguarding and SEND policies.
* Ratifying (in conjuction with the Governing Body) the Computing policy, Safeguarding policy (Online safety policy) and Computing Leader’s Action Plan.
* Securing technical support service contracts and infrastructure maintenance contracts.
* Approving CPD and training which is inline with the whole school’s strategic plan.
* Approving budget bids and setting them.
* Creating in conjunction with the Computing Leader, a long-term vision for Computing which includes forecasted expenditure and resources.
* Monitoring the performance of the Computing Leader in respect to their specific job role description for Computing.
* Ensuring any government legislation is being met.

*Computing Leader*

* Raising the profile of Computing for all stakeholders.
* Monitoring the standards of Computing and feeding back to staff in a timely fashion so they can act on areas for development.
* Ensuring assessment systems are in place for Computing.
* Maintaining overall consistency in standards of Computing across the school.
* Reporting on Computing at specific times of the year to the Governing Body/Head/Staff.
* Auditing the needs of the staff in terms of training/CPD.
* Actively supporting staff with their day-to-day practice.
* Seeking out opportunities to inspire staff in developing their practice through modelling and sharing new ideas, approaches and initiatives.
* Attending training and keeping abreast with the latest educational technology initiatives.
* Using nationally recognised standards to benchmark Computing.
* Creating Action Plans for Computing and supporting a long-term vision which feeds into the whole school development plan.
* Creating bids for the annual budgets and monitoring budget spend.
* Keeping an up-to-date log of all resources available to staff.
* Procuring physical and online resources that demonstrate best value.
* Reviewing the Computing curriculum and developing it as needed.
* Overseeing the effectiveness of the technician.
* Working as needed with SENDCo/Head Teacher to ensure online safety provision is above adequate and all legislation is in place.

*Technician*

Twiss Green employs and liaises with the company ‘Sync’ (GBM Digital Technologies) who are experienced in supporting schools and businesses with a range of support services including provision, ongoing tech support (phone, remote, on-site) and hardware repair/support services. They are accredited by a range of vendors and providers including, but not limited to, Apple, Microsoft and Google.

* Conducts routine scheduled maintenance/updates on systems
* Supports the administration and set-up of online services.
* Fixes errors/issues with hardware and software set-up, prioritising as needed.
* Routinely checks school filtering, monitoring and virus protection.
* Sets up new hardware and installations.
* Maintains network connectivity and stability.
* Supports the Computing Leader and Head Teacher with future infrastructure needs and associated projected costs.

*Administration Staff*

* Maintains the school website content.
* Supports procurement of resources and technical services.
* Supports the technician with some data management.

**Health and Safety**

Twiss Green Primary takes all necessary measures to ensure both staff and pupils are aware of the importance of health and safety. Both staff and pupils are trained to handle electrical equipment correctly including how to power on and off. Pupils are reminded about the dangers of electricity and the danger signs to look out for. Adequate displays and warning signs are strategically placed around the school to reinforce health and safety.

**J Dunn Computing Leader.**
Rewritten September 2021