

# Treeton C of E (A) Primary School

## Computing Policy

SUBJECT LEADER: Emma Minhas

**Reviewed: September 2024**

**Date of next review: September 2025**

This policy sets out Treeton Church of England's aims and strategies for the successful delivery of Computing. This policy should be read in conjunction with other relevant school policies. This policy has been developed by the Computing Leader in consultation with the Leadership Team and teachers. Guidance from consultants and pupil, parent and staff voice questionnaires have shaped and will continue to help shape this policy. This policy is based on government recommended/statutory programmes of study. Due to the fast pace of technology innovation and constantly emerging trends, this policy will be reviewed at the start of the academic year.

### Intent

Treeton C of E primary school believes that every child should have the right to a curriculum that champions excellence; supporting pupils in achieving to 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. 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.

### **Aims**

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.

### Implementation

As a school, we have chosen the Purple Mash Computing Scheme of Work from Nursery to Year 6. The scheme supports the delivery and learning of computing across 4 strands: **computer science, digital literacy, information technology and e-safety**. It also supports our teachers in delivering fun and engaging lessons, helps to raise attainment and allow all pupils to achieve to know more and remember more. Furthermore, it supports the generative learning approach that we are implementing across our curriculum. We are confident that the scheme of work is a spiral curriculum with sequential lessons; allowing children to achieve the National Curriculum objectives through small steps in learning. All areas of our computing curriculum revisits prior learning and enables children to add to their schema. Purple Mash provides immense flexibility, strong cross-curricular links and integrates perfectly with the 2Simple Computing Assessment Tool.

## **Early Years**

- Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in roleplay.
- 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 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.
- I pads are accessible daily in the EYFS provision to ensure pupils have access to Purple Mash resources daily.

## **Key Stage 1**

- 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 2**

- 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 worldwide 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.

## **Resources**

A range of resources are available which successfully supports delivering the Computing curriculum and enables all learners to reach their full potential. Children will be able to access computing through desk top computers, laptops, netbooks, iPads and Beebots. This ensures all key computing skills are acquired and enable children to feel confident when computing, regardless of the hardware they use. Software is monitored regularly and updated when required. Children have access to applications (apps) which are age appropriate and are designed for the specific purposes of building children's schema in computing.

A specialist IT technician is employed by DSAT to support us with the maintenance of our school's hardware, software and networks. The technician makes visits once a week, but is available for remote assistance in case of an emergency.

## **Inclusion**

At Treeton C of E, we aspire for all children to 'Let their light shine' Matthew V5I. This includes children of all abilities, social and cultural backgrounds, those with disabilities, EAL speakers and SEND needs. 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.

## **Online safety**

At Treeton C of E Primary School, online safety has a high priority. We ensure this priority is maintained and that pupil needs are met by the following:

- The first PSHE lesson of each half term will be an online safety lesson.
- A relevant up-to-date online safety curriculum which is progressive from Early Years to the end of Year 6.
- A curriculum that is threaded throughout other curriculum areas such as PSHE 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.
- Scheduled pupil voice sessions and learning walks 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. The Head of school shares weekly internet safety updates. Parents 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 (part of our safeguarding 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.

## **Impact**

### **Assessment**

Pupil attainment at Treeton C of E primary school 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. Objectives should be set within Purple Mash for each learning session and assessment made against the objectives set. 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, and displays from 2Simple, both teachers and pupils can evaluate progress. Summative assessment is undertaken in line with assessment tools which show attainment at the end of the year. Using electronic work samples from children's portfolios on Purple Mash, teachers enter judgements about the samples into the 2Simple Computing Assessment Tool.

### **Monitoring and evaluation**

The teaching and learning of computing are monitored at regular intervals. The subject leader ensures that the breadth of the computing curriculum is delivered by checking planning, learning walks, pupil voice, staff voice and work scrutiny.