

Computing Policy

St Thomas the Martyr Primary School

Revised September 2022

Introduction

The use of computers and computing systems is an integral part of both the National Curriculum and children's lives. Children are surrounded by computer systems and knowing how they work is a key life skill. There is now a wide range of software, tools and equipment that can be used to communicate, express ideas and create digital content. 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.

At St Thomas the Martyr we recognise that pupils are entitled to a broad and balanced computing curriculum with a progressive approach to learning how to use computers and how systems work. They are also entitled to learn the IT skills necessary to become digitally literate and to participate in the modern world. This policy states how our school intends to make this provision for all children.

Aims

Our school aims to:

- 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 unplugged 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, respectful and 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.
- Use technology imaginatively and creatively to inspire and engage all pupils, as well as using it to be more efficient in the tasks associated with running an effective school.
- Provide technology solutions for forging better home and school links.
- Utilise computational thinking beyond the Computing curriculum.
- Exceed the minimum government recommended/statutory guidance for programmes of study for Computing and other related legislative guidance (online safety).

Please see our Intent, Implementation and Impact statements for further information.

Online Safety

Online safety has a high profile at our school. 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 6.
- 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.
- 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.

Rationale

At St Thomas the Martyr we believe that IT, computer science and digital literacy:

- Are essential life skills that allow children to participate in the modern world
- Allows children to use and create digital content
- Provides access to a rich and varied source of information
- Communicates and presents information in new ways, helping children to understand, access and use it more readily.
- Can motivate and enthuse pupils in all areas of the curriculum
- Offers opportunities for communication and collaboration both inside and outside school
- Has the flexibility to meet children's individual needs and abilities.

Objectives

As a school, we have chosen the Purple Mash Computing Scheme of Work from Year 1 to Year 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. It provides immense flexibility and strong cross-curricular links. Furthermore, it gives excellent supporting material for less confident teachers, a target for our school following discussions with staff.

Purple Mash will be used alongside a range of computer programs and equipment and staff are to plan for children to gain a range of experiences. For example, coding using Daisy the Dinosaur, Purple Mash and Scratch. Staff are to ensure that lessons enable children to use software that may be found in the wider world, such as Microsoft Office, so that they gain experiences of the main elements of specific programs.

A minority of children will have particular teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include G&T children, those with SEN or those who have EAL. Teachers take account of these requirements and plan, where necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum activities.

Early Years

It is important in the foundation stage to give children a broad, play-based experience of IT and computing in a range of contexts. As computing is not just about computers, we aim to have learning

environments that feature IT scenarios based on real world experience, through role play for example. Children gain confidence and control, as well as developing their language skills, through opportunities such as creating art work and controlling programmable toys. Outdoor learning is an important aspect and using digital equipment is seen to support and develop the children's communication skills.

Key Stage 1

By the end of Key Stage 1 children should be 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
- 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 and computing 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 recognize common uses of information technology beyond school.

Key Stage 2

By the end of Key Stage 1 children should be 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.

Resources

At St Thomas the Martyr, we acknowledge the need to maintain, update and develop resources in order to ensure we have consistent, compatible computer systems by investing in resources that will deliver the National Curriculum objectives and support the use of IT, computer science and digital literacy across the school. Teachers are required to inform the technician of any faults as soon as they are noticed.

Computing network infrastructure and equipment has been sited so that:

- Every teacher from Nursery to Year 6 has a laptop connected to the school network and an interactive whiteboard. TA's have access to spare laptops.
- There is access to laptops for pupils and use of ipads
- iPad Minis are used by staff within Foundation Stage
- All teachers have an iPad for use in class
- There is a MacBook for use by the technician
- Promethean boards have been placed in classrooms for Nursery to Year 6
- Internet access is available from all teacher laptops, iPads and computers within the computing suite.
- Each class from Reception to Year 6 has an allocated slot per week for teaching computing as a discrete subject.
- The iPads are available for use throughout the school day as part of computing lessons and for cross-curricular use.
- The school has a computing technician employed by the LA

Monitoring and reviewing

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching. This may be through lesson observations, pupil discussion and evaluating pupil work. Evidence of work may also be seen on Seesaw, where children save pictures of their work and upload it to their own profile. Within KS1, and possibly some of KS2, teachers may take pictures of the children working on the computers to upload, until children are secure with saving files. Discussions between with the class teacher and computing lead about their personal strengths and weaknesses will enable support to be put in place to develop their teaching strategies.

Monitoring will be achieved through:

- Work scrutiny.
- Learning walks.
- Observations.
- Discussions with children/staff/parents.

The role of staff:

Head Teacher

- Monitoring the implementation of the Computing Policy and its associated policies such as the Safeguarding and SEND Policies.
- Securing technical support service contracts and infrastructure maintenance contracts.
- Approving CPD and training which is in line with the whole school's strategic plan.
- Approving budget bids and setting them.
- Ensuring any government legislation is being met.

Computing Leader

- Raising the profile of Computing for everyone.
- Monitoring the standards of Computing and feeding back to staff in a timely fashion so they can act on areas for development.
- 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.
- Creating Action Plans for Computing and supporting a long-term vision which feeds into the whole school development plan.
- Procuring physical and online resources that demonstrate best value. Reviewing the Computing curriculum and developing it as needed.
- Working as needed with the SENCO/Head Teacher to ensure online safety provision is above adequate and all legislation is in place.

Technician

- Conducts routine scheduled maintenance/updates on systems.
- Supports the administration and set-up of online services including the school website.
- 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.
- Posts approved requests to the school's social media accounts. Supports procurement of resources and technical services.
- Supports the technician with some data management.

The role of the class teacher

Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning computing and using their knowledge, skills and understanding of computing across the curriculum.

They will plan and deliver the requirements of the National Curriculum for Computing to the best of their ability. The class teacher's role is a vital role in the development of computing throughout the school and will ensure continued progression in learning and understanding, and create effective learning environments.

The class teacher will also:

- secure pupil motivation and engagement
- provide equality of opportunity using a range of teaching approaches and techniques
- assess the children's needs and use this to inform future planning
- set suitable targets for learning

Health and Safety

The school is aware of the health and safety issues involved in children's use of IT and computing. All portable electrical equipment in school is tested by an external contractor every twelve months. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the computing technician or head

teacher who will arrange for repair or disposal.

In addition:

- children should not put plugs into sockets or switch the sockets on.
- trailing leads should be made safe behind the equipment
- liquids must not be taken near the computers
- magnets must be kept away from all equipment
- online safety guidelines are set out in the Online Safety Policy & Acceptable Use Policy.

Cross curricular links

As a school we are aware that IT and computing skills should be developed through core and foundation subjects. We aim to include the use of IT across a range of subjects where appropriate. IT and computing is also used to support teaching and learning throughout the curriculum as well as developing computing knowledge, skills and understanding. For example, graphics work links closely with art, and the use of databases can support work in maths. The use of the Internet can aid research across the foundation subjects and children can present information using a range of software such as PowerPoint and Comic Life.