COMPUTING POLICY

St Mary's & St Benedict's RC Primary School

Together in God's family, we grow in faith, knowledge & love to reach our full potential, and to become the people that we are created to be.

Policy Agreed: **March 2023**
Review Date: **March 2027**

Our School Ethos

At St. Mary's and St. Benedict's we aim for our curriculum to inspire pupils to be life-long learners with a sense of service to the world that they live in and the people that live in it with them.

We believe our pupils will be life-long learners if they are able to be:

- ✓ confident,
- ✓ independent,
- ✓ curious,
- ✓ open-minded,
- ✓ enthusiastic,
- ✓ observant,
- ✓ co-operative and
- ✓ resilient individuals.

In order to develop these qualities within our pupils we intend for our curriculum to provide opportunities for children to:

- Be curious and ask questions
- Evaluate and reflect
- Work collaboratively
- Apply their learning
- Solve problems whilst developing resilience
- Communicate their learning
- Challenge ideas

Vision for Computing

At St Mary's and St Benedict's, our vision for Computing is clear. It is vital we provide varied and meaningful experiences to help our children to solve real-world problems and support them to become life-long learners. Lessons need to match the needs of our learners, supporting those who need it and challenging our most able pupils.

With this vision in mind, we have reviewed our scheme of work and have adapted the Purple Mash overview to hand pick subjects to meet the needs of our children. Creating a personalised scheme such as this has allowed us to build upon key skills, supporting our children on their learning journey though our school. Online safety underpins everything we do in Computing and is at the very heart of the most important feature of any school experience; safeguarding.

Computing Intent

The National Curriculum divides the teaching and learning of Computing into three strands (Computer Science, Digital Literacy and Information Technology). It is therefore important that children recognise the difference between what makes each one relevant to their future, as well as their everyday lives.

The National Curriculum additionally states that a high-quality Computing education equips pupils to use digital thinking and creativity to understand the world. Computing has deep cross-curricular links (Mathematics, Science and Design and Technology), which are noted within our school curriculum.

Computing in our school ensures that pupils become digitally literate and express themselves and develop their ideas through technology. The curriculum we employ supports children to complete age appropriate Computing and prepare them to be safe, active participants in a digital world.

Computing Implementation

At St Mary's and St Benedict's, the Computing curriculum in our school is taught through our personalised whole school overview. We have created this to meet the needs of our users, and have hand-picked key elements of the Purple Mash scheme to offer our children the broad and balanced curriculum they need and deserve.

As a school, we have chosen the Purple Mash scheme as it supports our teachers in delivering fun and engaging lessons, which help to raise computing standards and allow all pupils to achieve to their full potential. We are confident that the scheme supports all children in our school to meet the national vision for Computing. Furthermore, it gives excellent supporting material for less confident teachers.

The implementation of Computing units in the Purple Mash programme ensures a continuity and progression of skills, knowledge and understanding across the school. This is done by implementing Computing skills in meaningful ways, and maximising cross-curricular links.

As a stand-alone subject, a minimum of three units of Computing are taught during each school year and cross curricular links are made on a daily basis through use of iPads, smart TV's and laptops to support learning across our curriculum.

Computing Impact

We expect most children to achieve age related standards or better in computing within each year group. We also look for pupils that show a greater depth of understanding, and challenge this with questioning and additional challenge in lessons. We assess children's work in computing by making informal judgements as we observe them during each computing lesson. The pupils save their work into individual folders and this work is checked by the teacher with feedback given when appropriate. Our personalised programme supports the needs of all by providing opportunities to revisit and then upskill particular topics, linked to the key principles of Computing.

Purple Mash supports all teachers within our school to provide differentiated lessons which meet the range of needs in each class. Staff enjoy the flexibility of Purple Mash and are able to meet the needs of all learners thanks to access to the entire Purple Mash Programme.

Within Computing, children may be required to work individually, in pairs or in small groups according to the nature of the task. Different outcomes may be expected depending on the ability and needs of the individual child.

Specific Nature of Computing

The new National Curriculum presents computing as a lens through which pupils can understand the world. There is a focus on computational thinking and creativity, as well as opportunities for creative work in programming and digital media. There are three clearly defined aspects of the computing curriculum: computer science (CS), information technology (IT) and digital literacy (DL).

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.

The skills we hope to develop by using technology across the curriculum include:

- acquiring and developing the skills associated with using technology to pass on ideas by communicating,

- presenting and exchanging information
- researching and handling information
- making things happen by controlling and monitoring events
- trying things out by modelling real and imaginary situations
- acquiring and refining the techniques (e.g. saving, copying, checking the accuracy of input and output needed to use)
- recognising a variety of different technologies and using them effectively.

Sequencing with Computing

Our personalised scheme of work supports the Computing journey for learners from Year 1, ands runs on a two-year rolling programme to Year 6. Children in Early Years are supported to develop key Computing skills, in line with the EYFS framework and key threads of 'Understanding the World', which prepare them for Key Stage 1.

Early years

It is important in the Foundation Stage to give children a broad, play-based experience of Computing and technology in a range of contexts, including outdoor play. In the EYFS, it is important to recognise that Computing and technology are not just about computers. Early years develop fine motor, co-ordination and language skills through opportunities to 'paint' on the whiteboard or programme a toy. We also offer opportunities for children to work with Bee-bots and iPads as well as 2 classroom computers and smart TVs.

Our personalised scheme provides broad and balanced opportunities to build on and develop new skills to advance their computational thinking and to prepare our children for an ever-changing digital world.

Key Stage 1

By the end of key stage 1 pupils 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
- 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 recognise common uses of information technology beyond school.

Key Stage 2

By the end of key stage 2 pupils 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 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.

Impactful Learning

Our Computing Curriculum has been structured to demonstrate a progression of skills and ensures that children can build on their understanding, as each new concept and skill is taught with opportunities for children to revisit skills and knowledge as they progress through school.' Teachers assess children's knowledge, understanding and skills in Computing by making observations, through conversations with the children during lessons, the children's personal Purple Mash folders and the quality of the digital content they create.

The aim of our personalised Purple Mash scheme is to provide varied, meaningful opportunities, ensuring appropriate coverage of the three computing strands; computing science (CS), information technology (IT) and digital literacy (DL). The combination of the strands will allow learning to develop at an appropriate pace, whilst encompassing a range of relevant computing skill.

It is our intention that at the end of Year 6:

- Children will be confident users of technology, able to use it to accomplish a wide variety of goals, both at home and in school.
- Children will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and trends are rapidly evolving.
- Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems.

Assessment within Computing

We assess the children's work in Computing by making informal judgements as we observe and talk to the children during lessons. Completed work is saved to individual user accounts and then reviewed by the class teacher at the end of the lesson and unit.

These observations and work reviews then inform future planning, and teachers ensure that needs are met accordingly. Key learning is outlined on skill progression documents and children are assessed against these threads at the end of the academic year. Class teachers assess if children are 'working towards', 'working at' or 'exceeding' the national expectation for their age.

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring cycle. This may be completed through lesson observations, book looks, pupil voice and staff voice.

Safety

The Headteacher, Governing Body and teaching staff of St Mary's & St Benedict's RC Primary School take their responsibilities for safeguarding pupils very seriously. We have a duty of care for child protection and we also strive to help parents to keep their own children safe and free from exploitation. This responsibility is set out in our Safeguarding Children Policy.

We know that Computing can be a very exciting subject, yet at the same time we recognise that the use of these technologies can put young people at risk in and outside of the school. An Internet Access agreement has therefore been created to protect all parties, and rules for responsible internet use are displayed next to each computer and in each classroom. To further ensure the safety of the children, we teach each class the rights and responsibilities of using the internet safely.

To additionally promote internet safety, our school regularly provides information for parents on how to be aware of social media and internet dangers. This includes a monthly newsletter which gives advice and useful information on apps such as TikTok and Houseparty, websites such as Instagram and Facebook and communication and streaming sites including Zoom and Netflix.

A whole school approach to internet safety is further underpinned by Safer Internet Day, which takes place each year.

Resources

We have a wide selection of resources available to the children, including laptops, iPads and a large computer suite.

All resources are timetabled for use by children across the school. 'Smart TVs' are available in every classroom and are accessible to all children each day daily, cross-curricular links are made with Computing on a daily basis, with online safety and responsible computing use key features.

The computing suite is timetabled for use throughout the school day as part of Computing lessons and is also used for cross-curricular topics and intervention support (IDL).

St Mary's and St Benedict's RC Primary School are supported in the implementation of Computing by our local cluster of schools (WRIST). As part of this, our school has use of key technology resources (through Design and Technology), which have clear links to Computing.

'Crumbles' programming devices are shared between schools in the cluster and support cross curricular links between DT Computing (Key Stage 2: *design, write and debug programs that accomplish specific goals).*

Home Learning

In recent years there has been a boom in the education opportunities that are available online. We have bought into Times Tables Rockstars and Purple Mash to give pupils safe access to quality online education opportunities outside of school.

Pupils have passwords that can be used to access these sites, and we re-enforce online safety by reminding the children how to use them appropriately and how to keep their passwords and key information safe from others.

Our school website contains a dedicated page for each class within the school and home learning links and activities are regularly posted.

Mobile Phones

The use of mobile phones and other digital devices by pupils in school is not permitted. Pupils in Year 5 and 6, who do bring phones into school, do so at their own risk. They have the device locked in a filing cupboard for the day and handed back to them at the end of the school day.

Inclusion within Computing

Provision is made for children with a range of SEND that can be grouped into four broad categories of need, as detailed below:

1. Communication and Interaction

Children and young people in this category have speech, language and communication needs (SLCN) which make it difficult to communicate with others. This may be because they have difficulty saying what they want to, understanding what is being said to them or they do not understand or use social rules of communication.

Children and young people with ASD, including Asperger's Syndrome and Autism, who are likely to have particular difficulties with social interaction may belong to this category.

2. Cognition and learning

Support for learning difficulties may be required when children and young people learn at a slower pace than their peers, even with appropriate differentiation.

Specific learning difficulties (SpLD), affect one or more specific aspects of learning. This encompasses a range of conditions such as dyslexia, dyscalculia and dyspraxia.

3. Social, emotional and mental health difficulties

Children and young people may experience a wide range of social and emotional difficulties which manifest themselves in many ways. These may include becoming withdrawn or isolated, as well as displaying challenging, disruptive or disturbing behaviour.

Other children and young people may have disorders such as attention deficit disorder, attention deficit hyperactive disorder or attachment disorder.

4. Sensory and/or physical needs

Some children and young people require special educational provision because they have a disability which prevents or hinders them from making use of the educational facilities generally provided. These difficulties can be age related and may fluctuate over time.

As a school, St Mary's & St Benedict's RC Primary School is committed to ensuring that all children get access to the full curriculum and we will provide suitable amendments to provision to allow this to happen.

At the bottom of this webpage: https://www.smsb.lancs.sch.uk/send/ there is a comprehensive list of subjects and the SEND adaptations that are suggested for each area. Class staff are required to consider these documents to best meet the needs of pupils with identified needs.

English as an Additional Language (EAL)

At St Mary's & St Benedict's, we believe that:

• EAL children learn to speak, read and write in English through immersion in a broad, rich curriculum

• EAL learners make the best progress within a whole school context, where children are educated with their peers.

• Bilingualism is viewed as a positive and life-enriching asset.

We work with the EAL team at Lancashire County Council, when deemed appropriate, to access specialist teacher support for pupils. This additional input is co-ordinated between pupil's class teacher and the SLT lead for EAL provision.

Able, Gifted and Talented (AGT) pupils

At St Mary's & St Benedict's, we understand that all children require support and challenge in their learning in order to make progress and reach their potential. Subject leaders work with teachers to identify and support these children through our teaching and learning activities, our more able (MA) pupils are given a wide variety of challenges and experiences which develops their resilience, inspires them and deepens their understanding of the tasks.

They are encouraged to develop their abilities to ask questions, explain and reason, persevere, communicate their thoughts and take risks in their learning. We strive to provide creative means to increase their independence and curiosity, leading to an ever-increasing love of learning.