Computing at St.Mary's

Our Mission Statement

At St. Mary's, we are a proud Catholic school, with Christ at the heart of everything we do. We believe that every child is a gift from God, created in his own image and likeness. Our Mission Statement affirms that our aim is that every child reaches their full potential.

Pupils' learning and development is at the centre of our school's curriculum; it is broad, balanced and challenging, ensuring pupils develop the skills necessary to succeed in life after primary school. Our welcoming and nurturing environment, based on the Gospel Values, also allows every individual to develop their spiritual, moral, social and cultural growth.

We recognise that our children are the leaders of tomorrow and that we must prepare them to play an active and responsible role in society.

Our Vision for Computing –

In a world of constant technological advancement, our aim is for the pupils of St. Mary's to become proficient in the use of devices and programs that will develop understanding and skills specific to information and communications technologies as well as enhance their learning in subjects across the curriculum. They will know how such technologies are created and utilise skills necessary in programing through coding. We aim to provide a curriculum that will ensure that our pupils can acquire, organise, store, manipulate, interpret, communicate and present information and ideas in a variety of ways. They will also develop a curiosity and appreciation of how technology assists and enhances vast aspects of human life in the 21st Century.

Intent

We aim for our children to:
- Become autonomous, independent users of computing technologies;
- Be confident users of new technologies and be able to experiment with them in different ways to communicate learning;
- Be able to use logical thinking and reasoning to solve problems;
- Gain and apply new skills and knowledge in the areas set out in the Programmes of Study;
- Understand how their Computer Science / Computing and ICT learning in school impacts on their future lives.

Implementation

St Mary's Computing Curriculum focuses on three main areas:

- Computer Science / Computing (C) – *The ability to understand how technologies work and how to be an effective author of them. The ability to apply logical reasoning and computational thinking to solve problems*

- Information and Communication Technologies (ICT) – *The ability to be an effective and thoughtful user of technologies to store, present and communicate information*
- Digital Literacy (DL) - *The ability to locate, organise, understand, evaluate, and analyse information using digital technology. It involves a working knowledge of current 'high-technology', and an understanding of how it can be used*

We dedicate 1 hour in Key Stage 1 and 2 hours in Key Stage 2 to fulfilling these curriculum areas. Computing and ICT are different, but complimentary subjects. At times, our Computing curriculum will be non-computer based and that is because the focus in this area is computational thinking and logical reasoning which equips our children with the thinking skills they will need to solve computer based problems.

Through the use of the Kapow Computing Programme of Study, we ensure there is a progressive development of knowledge, understanding and skills within each of the three aspects of the Computing Curriculum at St Mary's.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Set up continuous provision in your classroom: Computing through continuous provision	**Computing systems and networks** Using a computer	**Programming 1** All about instructions	**Computing systems and networks** Exploring hardware	**Programming 2** Programming Bee-Bots	**Data handling** Introduction to data
Year 1	**Online safety** Online safety Y1 **Computing systems and networks** Improving mouse skills	**Programming 1** Algorithms unplugged	**Skills showcase** Rocket to the moon	**Programming 2** Programming Bee-bots Option 1: Bee-Bots Option 2: Virtual Bee-bots	**Creating media** Digital imagery Option 1: Google Option 2: Microsoft Office 365	**Data handling** Introduction to data
Year 2	**Online safety** Online safety Y2 **Computing systems and networks 1** What is a computer?	**Programming 1** Algorithms and debugging	**Computing systems and networks 2** Word processing	**Programming 2** Programming: ScratchJr	**Creating media** Stop Motion Option 1: Using tablet devices Option 2: Using	**Data handling** International Space Station
Year 3	**Online safety** Online safety Y3 **Computing systems and networks 1** Networks	**Programming** Programming: Scratch	**Computing systems and networks 2** Emailing Option 1: Google Option 2: Microsoft Office 365	**Computing systems and networks 3** Journey inside a computer	**Creating media** Video trailers Option 1: Using devices other than iPads , Option 2: Using iPads	**Data handling** Comparison cards databases Option 1: Google Option 2: Microsoft Office 365

Year 4	**Online safety** Online safety Y4 **Computing systems and networks** Collaborative Learning Option 1: Google Option 2: Microsoft Office 365	**Programming 1** Further coding with Scratch Option 1: Google Option 2: Microsoft Office 365	**Creating media** Website design Option 1: Google Option 2: Microsoft Office 365	**Skills showcase** HTML	**Programming 2** Computational thinking	**Data handling** Investigating weather
Year 5	**Online safety** Online safety Y5 **Computing systems and networks** Search engines	**Programming 1** Programming music Option 1: Sonic Pi , Option 2: Scratch	**Data handling** Mars Rover 1	**Programming 2** Micro:bit	**Creating media** Stop motion animation Option 1: Stop motion studio Option 2: Using cameras	**Skills showcase** Mars Rover 2
Year 6	**Online safety** Online safety Y6 **Computing systems and networks** Bletchley Park	**Programming** Intro to Python	**Data handling** Big data 1	**Creating media** History of Computers	**Data handling** Big data 2	**Skills showcase** Inventing a product

Inclusion

St Mary's Catholic Primary School is an inclusive school, which supports and encourages all children to achieve. We are committed to high quality teaching and learning opportunities with Quality First Teaching at the core of curriculum planning. Pupils with special education needs (including gifted and talented children) receive support where appropriate, including differentiated work and small group support from TA's.

Impact

Summative Assessment:
The Reception Scheme of work is linked to the seven areas of learning: communication and language, expressive arts, Literacy, Mathematics, physical development, PSED and understanding the world. Progress is measured using the Foundation Stage Profile.
The Kapow assessment tools for Year 1 – Year 6 are used to assess children against the curriculum in line with our Computing Scheme of Work.

Formative Assessment:
In order to ensure lessons are pitched correctly and children are challenged, teachers must regularly check progress alongside the progression statements, guidance on Kapow and expectations explained above. Knowledge gained will feed in to the summative assessment where judgements are made at the end of each school year.