Computing

At St Mary's, we aim for our learners to be:

A digital citizen, who is safe and responsible,

A digital communicator, who is digitally literate,

A digital creator, who is logical and creative,

A digital investigator, who can create ideas.

In order to achieve this, our computing curriculum follows these five strands:

- E-safety
- Technology in our lives
- Handling Data
- Programming
- Multimedia.

Children have access to computers and or tablets within their classrooms, these are used to support their learning throughout the curriculum. These are all part of a school network that enables the sharing of work and other files linked by a wireless network. The school has a broadband Internet connection, and this is used in conjunction with the school's e-safety guidelines to enable the children to use the Internet and World Wide Web creatively, responsibly and safely.

In Key Stage One

Programming

Children understand what algorithms are; how they are implemented as programs on digital devices; and that programs follow precise and unambiguous instructions. They can create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. For example, programming a bee-bot to move to a certain place, then making corrections to the programme.

Multimedia and Data Handling

Children can use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Technology in our Lives

Children can recognise common uses of information technology beyond school.

E-safety

Children can use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Key Stage Two

Programming

Children learn to:

Design, write and debug 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.

Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

Technology in Our Lives

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.

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Multimedia and Data Handling

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

E-safety

Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Useful links:

National Curriculum for Computing

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/239033/PRIMARY_national_curriculum_-_Computing.pdf

Scratch: https://scratch.mit.edu/

Hour of Code: https://uk.code.org/

Barefoot Computing: http://barefootcas.org.uk/

Dance Mat Typing (to aid keyboard skills): http://www.bbc.co.uk/guides/z3c6tfr