Computing at St Michael's

We believe that every child should have the right to a curriculum that supports pupils in achieving to the very best of their abilities. This supports our vision (Shine as Lights in the World) and values. We understand the 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; improved engagement of pupils and supports cross-curricular concepts for all our children

We aim to:

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- enable children to become confident on a range of devices
- create opportunities for collaborative and independent learning
- develop children's understanding of technology and how it is constantly evolving
- enable a safe computing environment through appropriate computing behaviours
- give children the opportunity to use a range of software to practise and develop skills and where possible, reinforce these skills within other areas of the curriculum and encourage them to use these skills at home as well as at school.
- Enthuse and equip children with the capability to use technology throughout their lives.
- 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.

Curriculum Implementation

EYFS

In Early Years, the computing curriculum is explored through Personal, Social and Emotional Development, Physical Development, Expressive Arts and Design. It is important that the children have opportunities to show resilience and perseverance in the face of a challenge, know and talk about the different factors that support their overall health and wellbeing eg: sensible amounts of 'screen time'. It is also key to develop their small motor skills so that they can use a range of tools competently, safely and confidently, as well as explore, use and refine a variety of artistic effects to express their ideas and feelings.

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 precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- 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 2

Pupils should be taught 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
- 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
- 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
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Curriculum Impact

EYFS: The children will be confident to try new activities and show independence, resilience and perseverance in the face of challenge. They will be able to explain the reasons for rules, know right from wrong and try to behave accordingly. They can Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

KS1 & 2: Through our computer curriculum our pupils will have developed their understanding and enjoyment of a range of computer programs and technology. The children will be confident and competent when using new software and equipment in the future world where technology is continuously and rapidly evolving and be prepared for their future workplace with technology that doesn't even exist yet.