

**St Simon’s Computing Statement of Intent**

**Intent**
*Why do we teach this? Why do we teach it the way we do?*

At St Simon’s Catholic Primary School, we value computing because we believe in providing a high-quality computing education which equips children to use computational thinking and creativity to understand and change the world. The curriculum will teach children key knowledge about how computers and computer systems work, and how they are designed and programmed. Learners will have the opportunity to gain an understanding of computational systems of all kinds, whether or not they include computers.

**Implementation**
*What do we teach? What does this look like?*

In line with the National Curriculum guidelines we will aim to ensure that all pupils:

* Are confident in using code and can understand and apply the fundamental principles and concepts of computer science, including logic, algorithms and data representation
* When coding, can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
* Effectively communicate and can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
* Are able to connect with others responsibly and are competent, confident and creative users of information and communication technology

In Key Stage 1 the children will learn to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. They will be taught to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. They will be shown how to use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as recognise common uses of information technology beyond school. They will be taught to 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. Each of these skills will be taught through exciting half termly units.

In Key Stage 2 the children will design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  They will use sequence, selection, and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and programs. Children will be taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They will use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content. Children will be taught to select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals. They will use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Our children in Early Years provision will be exposed to the understanding of internet safety as they explore the world around them and how technology is an everyday part of their learning and understanding of the world.

**Impact**
*What will this look like?*

By the time they leave St Simon’s, children will have gained key knowledge and skills in the three main areas of the computing curriculum:

* computer science (programming and understanding how digital systems work)
* information technology (using computer systems to store, retrieve and send information)
* digital literacy (evaluating digital content and using technology safely and respectfully).
* The objectives within each strand support the development of learning across the key stages, ensuring a solid grounding for future learning and beyond.

The integral nature of the computing curriculum at St Simon’s creates rich opportunities for children to access fundamental skills including:

* A respect for **spiritual**, cultural and historic diversity.
* Being **trusted** when interacting and working online.
* Increased **resilience** to continue trying and improving through a process of self-reflection.
* An **inquisitive** nature to explore new things and take risks.
* Being **valued** both individually and as part of a team.
* A sense of **exceptional** achievement.