



St. Patrick's Catholic Primary School

Computing

Intent, Implementation and Impact Statement

Intent.

At St. Patrick's we understand that a high-quality computing education is essential for pupils to understand modern information and communication technologies. We prepare our pupils for the 21st century to be safe, responsible, competent, confident and creative participants in an increasingly digital world, not just as accomplished consumers of technology, but also as skilled, enthusiastic and imaginative creators of technology. We teach a curriculum that enables children to become skilled users of technology who can:

- Keep safe when using technology.
- Understand and apply the essential principles and concepts of Computer Science, including logic, algorithms and data representations.
- Analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.
- Evaluate and apply information technology analytically to solve problems.
- Communicate ideas well by utilising software tools throughout all areas of the curriculum.

Our Computing teaching provides a wealth of learning opportunities and transferrable skills explicitly within the Computing lesson and across other curriculum subjects.

Implementation

Teachers at St Patrick's plan cycles of lessons for each topic within the computing curriculum, carefully scheduling progression and depth of learning. Teaching of computing is delivered through a series of discrete Computing lessons, with additional planned opportunities to practise and embed skills learned, through cross-curricular subject links. Online safety learning is delivered through discrete computing lessons, during PHSE lessons and during a targeted week of online safety to tie in with the Safer Internet Day campaign promoted by the UK Safer Internet Centre.

Our children in Early Years are introduced to the understanding of online safety as they explore the world around them and how technology is an intrinsic part of their learning and understanding of the world.

In KS1 the children learn what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. They are taught to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. They use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as

recognise common uses of information technology in and beyond school. They are taught how 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 using other online technologies.

In KS2 the children design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems and solve problems by decomposition into smaller parts. They use sequence, selection, and repetition in programs; use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and programs. They are taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They use search technologies effectively, learn to appreciate how results are selected and ranked, and to be discerning in evaluating digital content. The children are taught to select and use a variety of software (including internet services) to create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. They are taught how to use technology safely, respectfully and responsibly; recognise acceptable and unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Learning opportunities are provided for all children by matching the challenge of the task to their individual needs and abilities. Assigning classroom assistants to small groups of children and, where appropriate, one-to-one assistance enables all of our children to access the learning.

Impact

After the implementation of the comprehensive and cross curricular computing curriculum at St Patrick's the children will be digitally literate and equipped to use technology creatively to understand and take an active role as participants of an increasingly digital world, but more importantly – safely.

We measure the impact of our curriculum through the following methods:

- A reflection against the planned success criteria for the lesson.
- On-going formative assessment monitors child performance and progress during learning.
- Pupil discussion about their learning.
- Learning walks and lesson observations.
- Samples of work will be kept for groups of children, stored both in classrooms and digitally.
- Analysis of summative data to inform future planning and teaching.