

# Computing

## **Intent** - What are we trying to achieve for our children in computing?

Technology is changing the lives of everyone, and at St Patrick's Catholic Primary School, we believe that all children need to be equipped with the necessary computing skills, and knowledge and understanding in order to succeed and flourish throughout their education and in the future workplace. Through our Computing Curriculum, we aim to give our children high quality, enjoyable and memorable experiences through access to a range of digital and electronic software and hardware.

Our Computing Curriculum will enable our children to gain knowledge and skills in the three main areas of Computing: Computer Science, Information Technology and Digital Literacy. We aim for the children to have a foundational understanding of computing. A foundational understanding will include algorithms, creating and using simple programs, logical reasoning and prediction, and develop their critical thinking and problem-solving skills. We also aim for the children to purposefully and creatively store, manipulate and retrieve digital content, as well as recognise how technology is used in the wider world. Our intention is that all children will then be able to apply and use their computing skills across the curriculum.

We also recognise that children need a strong, but age-appropriate understanding of how to keep safe when using computing technology and navigating the internet. At St Patrick's we intend for the children to be respectful and safe online and be articulate in explaining how to do this.

## **Implementation** - How is the curriculum delivered?

At St Patrick's, Computing is taught in discreet lessons; however, the use of technology is encouraged to support learning across other curriculum subjects, and where appropriate, meaningful links are made. We use the National Centre for Computing Education (NCCE) Teach Computing scheme of work as a starting point, and adapt this so it can be effectively taught using the infrastructure and resources we have in place at the school, as well as meeting the needs of our pupils. In doing so, the children are taught about the three aspects of the computing curriculum: Computer Science (programming and understanding how digital systems work), Information Technology (using computer systems to store and retrieve and send information, and learn to use and express themselves and develop their ideas through ICT. For example, writing and presenting, as well as using multimedia) and Digital Literacy (evaluating digital content and using technology safely, responsibly and respectfully).

Every lesson in the Teach Computing scheme is planned so that it can be taught effectively, with teachers adapting the lesson plans to best meet the needs of the pupils in their class. The scheme is closely referenced against the National Curriculum to ensure progression and coverage. Having discreet lessons means that children are able to develop depth in their knowledge and skills over the duration of each of their computing topics. Where appropriate, we may also use other National Curriculum resources with the Teach Computing Scheme.

In computing lessons, the children will have access to either Chromebook or iPads to explore and use a range of applications and software. Online safety is taught at an age-appropriate level, and the children are also taught about vocabulary linked to computing.

**Impact** - What difference is the curriculum making? How do you know whether pupils know what you think they know?

At St Patrick's, we want every child to be a confident user of technology during their time here, and be able to use it to accomplish a wide variety of goals, both at home, in school, and in the wider community. Within computing, we encourage a creative and collaborative environment in which pupils can learn to express and challenge themselves. At the end of each key stage, children are expected to know, apply and understand the skills and knowledge specified in the computing programme of study.

We will measure the impact of our curriculum by: looking at formative teacher assessments; conducting pupil discussions; lesson observations and learning walks; and monitoring the children's work. This will then inform future adaptations to the scheme of work and help to ensure that there is progression throughout the school.

Throughout their time here, pupils at St Patrick's Primary should:

- Be enthusiastic and confident in their approach towards Computing.
- Be able to use their computational thinking and apply this to their everyday lives.
- Be able to identify the source of problems and work with perseverance to 'debug' them.
- Be confident when using technology in order to create and evaluate their own project work.
- Have a secure understanding of the positive applications and specific risks associated with a broad range of digital technology.
- Transition to secondary school with a keen interest in the continued learning of this subject.