St. Patrick's Catholic Primary School: Policy – September 2019

The National Curriculum states that:

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology

Intent

Technology is changing the lives of everyone. Through teaching Computing we equip children to participate in a rapidly-changing world where work and leisure activities are increasingly transformed by technology. It is our intention to enable children to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way.

Computing skills are a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to allow them to achieve this.

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Give children access to a variety of high quality hardware, software and unplugged resources.
- Instil critical thinking, refective learning and a 'can do' attitude for all our pupils, particularly when engaging withtechnology and its associated resources.
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology.
- 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.
- Use technology imaginatively and creatively to inspire and engage all pupils, as well as using it to be more efficient in the tasks associated with running an effective school.
- Provide technology solutions for forging better home and school links.
- Utilise computational thinking beyond the Computing curriculum.
- Exceed the minimum government recommended/statutory guidance for programmes of study for Computing and other related legislative guidance (online safety).

Implement

Planning and Assessment

The Early Years foundation stage follow the development matters framework alongside the Early learning goals. In addition they use the Purple Mash scheme of work. F1 and F2 work within the Early Learning Goals and continuous assessment is recorded on Foundation Stage Profiles.
In Key Stage 1 and 2, units of work are planned for from the Purple Mash Scheme of work and are complemented by other resources which covers the whole primary curriculum with a clear structure of progression building on children's previous knowledge. It uses resources embedded within the platform which allows pupils to save, combine and import content which can be shared across the school safely.

Early Years foundation stage plan group work and continuous provision activities linked to their focus. Key stage 1 & 2 classes have a dedicated Computing time in the ICT suit with activities which complemented the curriculum throughout the week .

All teachers are responsible for developing weekly plans in line with the scheme of work using their own choice of proforma. These plans indicate the learning objectives for each lesson along with activities, which clearly show progression. Clear differentiation is built into weekly plans and the needs of all children are planned for, including those with Special educational needs and more able children.

Pupil attainment is assessed using the 2Simple Computing Assessment Tool for Years 1 to 6. The tool enables staff to accurately identify attainment of pupils through the detailed exemplifcation it has for each key learning intention.

Key stage 1

- 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

- 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

Quality of Teaching and Learning

It is seen as very important to employ a wide range of teaching strategies. However, emphasis is placed on direct teaching, demonstrating, modelling methods and strategies to be learnt, and the use of skilful questioning in order to develop understanding.

The development of oral communication skills and a rich vocabulary are nurtured through encouraging children to talk about their experiences and understanding with each other as well as their teacher and parents.

Leadership and Management

The Role of Governors

The Governors are informed regularly about standards and the progress throughout the school, through the Governors' meetings, Headteacher's report to Governors, and a summary of the data. A Governor responsible for each subject meets regularly with the Coordinator. This Governor receives a copy of the subject Policy, subject action plan and analysis of SATs results. The Governors are also involved in the setting of targets for the end of key Stage 2 and in carrying out a work scrutiny of books throughout the school.

The Role of the Headteacher

The Headteacher, in collaboration with the Coordinator, establishes the whole school approach to each subject area. She ensures and clarifies what needs to be achieved by the coordinator and provides the necessary support and resources in order to achieve it.

The Head teacher is kept informed about the quality of teaching and learning through regular discussions with the coordinator and also by using the monitoring forms which are completed after any kind of monitoring activity

The Role of the Coordinator

The Coordinator develops an overview of the strengths and weaknesses of their subject in the school and uses this to inform contributions to the subject Action Plan and carries out the tasks identified.

A supportive role is given to teachers for planning, teaching lessons and making assessments. Advice is also given on the use of resources.

The coordinator identifies INSET needed and where appropriate and able, provides in-school inset and keeps abreast of subject developments.

Together with the Headteacher, the coordinator monitors the progress of their subject by analysing test data, observing lessons and evaluating children's work.

The SENCO and Support Staff

The support staff are clearly informed about their role in each lesson and have access to planning prior to each lesson. They have attended insets and are familiar with the National Curriculum

The SENCO, where appropriate, works with the coordinator to plan the provision for children with special educational needs, in order to encourage a full participation and involvement in the daily lessons. Where individual plans are needed, yearly teaching objectives are used to plan targets for development.

Partnership with Parents

Liaison with parents is important in order for them to help children with their learning. Parents are informed regularly about the school's approach to Computing through letters, displays and where appropriate, meetings. They are informed about children's progress at Parents' Evenings, annual reports. Parents are encouraged to support and become involved in their children's learning through homework activities.

Impact:

Our Computing Curriculum is high quality, well thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

A reflection on standards achieved against the planned outcomes;
Analysis of progression through pre and post learning activities
Pupil discussions about their learning;

Monitoring and Evaluation

Lessons are observed by the Headteacher and Coordinator.
Work analysis is carried out by the Coordinator throughout the year.
Teachers' planning is monitored termly.
Books/Work are scrutinised termly