Policy for Computing

March 2021

Intent
In line with the 2014 National Curriculum for Computing, our aim is to provide 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.

By the time they leave Our Lady Star of the Sea, 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) and 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.

Implementation
Knowledge and skills are mapped across each topic and year group to ensure systematic progression.

The implementation of the curriculum also ensures a balanced coverage of computer science, information technology and digital literacy. The children will have experiences of all three strands in each year group, but the subject knowledge imparted becomes increasingly specific and in depth, with more complex skills being taught, thus ensuring that learning is built upon. For example, children in Key Stage 1 learn what algorithms are, which leads them to the design stage of programming in Key Stage 2, where they design, write and debug programs, explaining the thinking behind their algorithms.

All four classrooms are equipped with an Interactive Whiteboard, which is run from a desktop computer. The hall has a projector and a screen. School has a computer suite with 20 of computers, 20 laptop computers and 24 IPads connected to a network server via wireless network connection. Each class is timetabled to have access to the computer suite, laptops and IPads, these are to be used in specific Computing skills lessons or to support teaching and learning in all other curriculum areas. As well as this all classrooms have at least 2 desktop computer in each class.

Computing skills and knowledge should be presented:
Via demonstration by the teacher to stimulate and teach children specific computing skills and packages.
With lots of 'hands on' experience allowing regular opportunities for practise and consolidation of Computing skills and techniques.
Via both independent and collaborative activities to use ICT as a tool for investigation in all subject areas.

Impact

Our approach to the curriculum results in a fun, engaging, and high-quality computing education. The quality of children's learning is evident in children's online digital work folders and can be seen throughout the other areas of the curriculum. Evidence such as this is used to feed into teachers' future planning, and termly assessments. This ensures all pupils make good progress.

Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in secondary school, further education and future workplaces. From research methods, use of presentation and creative tools and critical thinking, computing at Our Lady Star of the Sea gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives.

Our Lady Star of the Sea RCVA Primary School
POLICY FOR Computing

* The terms **Computing** and **ICT** are referred to throughout this policy. Where applicable ICT (Information Communication Technology) is used to describe opportunities to access resources within school e.g. Laptops, IPad, Digital Cameras etc. The term ICT does not represent the outline of the subject.
Computing refers to the subject as a whole of which all other strands stem from.

What is Computing?
A high-quality computing education equips pupils to understand and change the world through logical thinking and creativity, including by making links with mathematics, science and design and technology. The core of computing is computer science, in which pupils are taught the principles of information and computation, and how digital systems work. Computing equips pupils to use ICT to create programs, systems and a range of media. It also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, ICT – 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 ICT

Cross Curricular Links
ICT permeates all subjects, themes and dimensions in accordance with the orders for ICT.

Classroom Management of ICT

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Timing

The recommendation is for one hour per week to be dedicated to discrete Computing lessons to introduce new skills. All children have access to computers, laptops and iPads at other times throughout the week, in order that Computing skills are used and embedded in other curriculum areas.

Continuity and progression of Computing

The Computing curriculum should ensure continuity and progression throughout the Foundation Stage and Key Stage 1 and Key Stage 2. Progression in Computing involves:

The progressive development of pupils' skills, knowledge and understanding
Breadth of applications.
Increased complexity of contexts in which ICT is applied.

The growing autonomy of the pupil in their learning.

In Reception, children have a discrete Computing lesson in which new skills are explained and demonstrated and practised. Opportunities exist at all times for children to practise their Computing skills within the classroom and outdoor areas.

Likewise throughout Key Stage 1 and 2, children are taught through discrete, weekly Computing lessons with opportunities to use ICT arising though all curriculum.

Assessment & Recording of Computing

Teacher assessments of Computing capability will be recorded throughout the year and reported to parents at the end of each academic year. Staff should keep examples of pupils' work and complete assessment records to form a judgement at the end of both Key Stages. These assessments are recorded each term through foundation trackers. Some class or group activities may be recorded using digital photography, digital recording and printouts and other evidence saved in children's own online folders on the server.

Special Educational Needs

Pupils with Special Educational Needs benefit from using ICT as it can enhance access to the curriculum, which in turn encourages motivation and development of cross-curricular skills and so raises achievement. Opportunities to utilise ICT with children with SEN are thus maximised.

Support staff use ICT in small groups and one to one session implementing speech and language and reading programs, using identified software.

Equal Opportunities

All pupils regardless of race, gender or ability should have the opportunity to develop Computing capability. We ensure that all pupils:

Have equal access to ICT resources.
Have equal opportunities to develop Computing capability.
Use software that is appropriate to their ability.

Display

Children's work may be displayed in individual classrooms and in the ICT suite to promote good practice and celebrate work.

Date for Review: March 2023