St Joseph's RCVA Primary School

Policy for Computing

2019 - 2020

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This policy is written with consideration to our school commitment to the Rights of the Child and our achievement of becoming a Rights Respecting School. Although direct reference to this is not continually made, the policy has been written with full awareness of our commitment to CHILDREN'S RIGHTS and also complies with Article 28 of the UNCRC 'Every child has the right to an education' and Article 17 'The right to reliable information'

* 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, Ipads, 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

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Subject content Key stage 1
Pupils should be taught to:

- 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
- Use technology safely and respectfully, keeping personal information private; know where to go for help and support when they have concerns about material on the internet
- Recognise common uses of ICT beyond school.

Subject Content Key Stage 2
Pupils should be taught to:

- 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
- use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour

- select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

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

Classroom Management of ICT

All classrooms are equipped with an Interactive Whiteboard, which is run from a laptop computer. Classes also have access to laptops and iPads. The main school hall is also equipped with an interactive board and laptop. We have laptop computers connected to a CC4 server via wireless network connection. Each class is timetabled to have access to the laptops to be used in specific Computing skills lessons or to support teaching and learning in all other curriculum areas.
Additionally, the school has iPad tablets connected to the internet via a wireless network which has recently been updated to accommodate faster speeds and additional users (2015). All classes have access to the iPads and are utilised throughout a range of curriculum subjects. Additionally, Class 1 has an iPad tablet to be used for digitally storing and cataloguing observations of children using the 2Simple Build-a-Profile app which is a subscribed licence. Some additional hardware is available within school but this needs reviewing for future needs.

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.

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 laptop computers and iPads at other times throughout the week, in order that Computing skills are used and embedded in other curriculum areas. Additionally, a regular computing after school club is available is ran focussing on different Key Stages each term, where they can access a range of computing hardware and software.

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 discover computing through the overarching topic of technology and understanding the world. Opportunities to access ICT are available within class, whilst other computing skills can be accessed in both indoor and outdoor areas.

Throughout Key Stage 1 and 2, children are taught through discrete, weekly Computing lessons with opportunities to use ICT arising within the entire 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 on each pupil's level of attainment at the end of both Key Stages. Some class or group activities may be recorded using digital photography, digital recording and printouts. Assessments of children will refer to the County progression document which identifies key skills required within each year group.

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 sessions 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 on the Projector Screen in the hall, in the form of a PowerPoint presentation during special assemblies.

Date for Review: April 2020