St Joseph's Catholic Primary School

Inspiring everyone to **REACH** through Faith, Hope, Love

At St Joseph's, we strive for academic excellence through encouraging resilience, empathy, aspiration and challenge. We have high expectations for ALL so that we can be 'The best we can be.' With Faith, Hope and Love at the heart of our school family, our children feel safe, secure and supported.

Policy for Computing

Subject Leader: Hannah Crisp
Link Governor:
Approved by FGB: **22nd January 2020**
Review Date: July 2023
Other relevant policies: E-Safety and Safeguarding

Introduction

The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. We recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively.

This policy has been produced based on the model provided by South West Grid for Learning and has been adapted for St. Joseph's Catholic Primary School. It will consider all current and relevant issues, in a whole school context, linking with other relevant policies, such as the Child Protection, Behaviour and Anti-Bullying policies. The SWGfL Model Policy template that this policy is based on can be found on their website www.swgfl.org.uk/policy and the copyright of this Self Review Framework is held by SWGfL.

Aims

- Provide a relevant, challenging and enjoyable curriculum for ICT and computing for all pupils.
- Meet the requirements of the national curriculum programmes of study for computing.
- The Computing Subject Leader and leadership team support staff to deliver a high-quality computing education.
- Computational thinking – the ability to solve problems in a creative, logical and collaborative way – is developed through repeated programming opportunities and opportunities to build understanding and apply the concepts of computer science.
- Pupils become responsible, competent, confident and creative users of information and communication technology.
- Pupils have access to a variety of devices and resources and are encouraged to reflect on the choices they make to use them.

We expect our pupils to:

- Use computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use computing throughout their later life.
- To enhance learning in other areas of the curriculum using computing.
- To develop an understanding of the wider applications of computer systems and communication technology in society.
- To work independently and collaboratively.
- To develop computing skills, knowledge and understanding.
- To develop the understanding of how to use computing safely and responsibly.

Curriculum Coverage and Progression

- Planning for Computing is implemented using two core documents: the National Curriculum Programme of Study for Computing and the Statutory Framework for Early Years Foundation Stage.

- Long term planning has been developed using the Rising Stars 'Switched on' scheme and demonstrates coverage and progression of the attainment expectations at the end of Key Stage 1 and Key Stage 2 as identified in the Computing POS.
- Medium term planning takes account of differentiation and progression and is based on Rising Stars 'Switched on' scheme progressions in Programming, e-Safety, Multimedia, Handling Data and Technology in our Lives.
- Key skills in information technology are developed through Multimedia and Handling Data threads and are integrated into learning in other curriculum areas.
- E-Safety is developed through PSHE, together with the threads of Technology in our Lives and Multimedia, whereby it build on the skills and understanding of Digital Literacy.

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

Assessment

- Progress is assessed on an on-going basis using the Rising Stars 'Switched on' scheme 'I can' statements for each thread of Computing. This ensures teachers are aware of individual pupil's progress in computer science, information technology and digital literacy.
- Formative assessment is used by the class teacher during whole class or group teaching. Children's confidence and difficulties are observed and use to inform future planning.
- Open questions are used to challenge children's thinking and learning.
- Children are encouraged to evaluate their own work in a positive and supportive environment, including self-assessment.

Early years

It is important in the foundation stage to give children a broad, play-based experience of ICT in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should feature ICT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to explore using non-computer based resources such as cameras, Ipads, and CD players. Recording devices can support children to develop their communication skills. Because of this pupils in Foundation Stage class will have experiences using technology indoors, outdoors and through role play in both child-initiated and adult-led time.

By the end of Reception pupils should be taught to:
- Complete a simple program on a computer
- Use ICT hardware to interact with age-appropriate computer software
- Recognise that a range of technology is used in places such as homes and schools.

National Curriculum

Key Stage 1
By the end of 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
- 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
By the end of 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
- 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

E-Safety

At Saint Joseph's Catholic Primary School, we take E-Safety very seriously. Computers and computing are now an unavoidable part of everyday life and it now easier to access than ever before.

The use of these exciting and innovative tools in school and at home has been shown to raise educational standards and promote pupil achievement. However, the use of these new technologies can put young people at risk within and outside the school. Some of the dangers they may face include:

- Access to illegal, harmful or inappropriate images of other content.
- Unauthorised access to/loss of/sharing personal information.
- The risk of being subject to grooming by those with whom they make contact on the internet.
- The sharing/distribution of personal images without an individual's consent or knowledge.

- Inappropriate communication/contact with others, including strangers.
- Cyber-bulling
- Access to unsuitable video/internet games
- An inability to evaluate the quality, accuracy and relevance of information on the internet.
- Plagiarism and copyright infringement.
- Illegal downloading of music or video files.
- The potential for excessive use which may impact on the social and emotional development and learning of the young person.

It is essential that we equip our children with the skills and knowledge to not only use digital technologies effectively but also safely and responsibly. As a result, it is an important part of our school curriculum, building on the skills developed previously and teaching children the new skills that are now required.

- A progressive e-Safety curriculum ensures that all pupils are able to develop skills to keep them safe online.
- Opportunities for learning about e-Safety are part of PSHE and reinforced whenever technology is used.
- The school provides opportunities for pupils to consider cyberbullying as part of Anti-Bullying week in the autumn term.
- The school has an e-safety policy in place that details how the principles of e-safety will be promoted and monitored.

Monitoring

- The impact of the Computing curriculum is monitored regularly by the Computing subject leader through pupil discussion, samples of work and discussion with teachers.
- Systematic monitoring of all threads of Computing informs the subject leader and school development plan.
- The Computing lead additionally conducts audits of the training needs of teachers and teaching assistants to improve their subject knowledge and confidence.

Equal Opportunities

- The school maintains its policy of equal opportunities as appropriate for Computing.
- Computers and related technology are made available to all pupils regardless of gender, race or abilities.
- The class teacher differentiates work by task, resource or support, to ensure the individual needs of more able and SEN pupils are met.
- The school is aware that not all pupils have the same access to computers at home and this is considered by staff in the planning and delivery of the curriculum.

Resources

- The school has a range of resources to support the delivery of the Computing curriculum, the Early Years Framework and learning across all areas of the National curriculum including Ipads, laptops, cameras, Beebots etc. We maintain a list of resources used in school.

- Online tools are also an integral part of the experience of pupils.
- The Computing subject leader keeps up to date with new technologies and reviews the school's provision, as well as maintaining the existing resources in partnership with the school's technology support provider, Edit.
- Staff are able to email Edit with technological issues.
- The Computing Action Plan expresses the school's priorities for future expenditure and is reviewed by the Computing subject leader, governors and Senior Management who consider its impact on all learning.

Roles and responsibilities

- The school community works together to ensure the implementation of the Computing policy.
- The subject leader is responsible for monitoring curriculum coverage and the impact of learning and teaching; and assists colleagues in its implementation.
- Subject leaders in other curriculum areas are responsible for recognising the links between computing and English, Mathematics, Science and foundation subjects; and planning to use these to support learning across the school.
- Governors may include Computing in their learning walks around the school.
- The class teacher is responsible for delivering an effective Computing curriculum and integrating this into their planning for other subject areas where this is appropriate.
- The school receives technical support from Edit and the technicians are responsible for the maintenance of computers, printers, the school network and keeping software up to date.

Health and Safety

- Age appropriate safety rules are displayed on the board around the laptop storage.
- Equipment is maintained to meet agreed safety standards.
- From Foundation Stage, pupils are taught to respect and care for technology equipment.
- Further guidance can be found in the school's health and safety policy.

Review

This policy will be reviewed by the Computing subject leader and leadership team and shared with the school community.

Glossary

Algorithms – a process or a set of rules to be followed.

E-Safety – safe and responsible use of technology on the computer.

EYFS – Early Years Foundation Stage

National Curriculum Programme of Study for Computing – statutory programmes of study and attainment targets for computing from Key Stage 1 to Key stage 4.

PSHE – personal, social and health education

SEND – special educational needs and disability

Statutory Framework for Early Years Foundation Stage – sets the standards for the learning, development and care for all children from birth to the age of 5.