St Mary's Catholic Primary School

Computing Policy

Vision

Our vision is to promote the growth and development of the whole person by ensuring that their curriculum experience in Computing is within a Catholic setting and where all members of our school community can acquire skills and knowledge which equip them for life in the 21st century.

Rationale

Computing addresses the challenges and opportunities offered by the technologically rich world in which we live.

Computing is concerned with how computers and computer systems work, and how they are designed and programmed. Pupils studying computing will gain an understanding of computational systems of all kinds, whether or not they include computers. Computational thinking provides insights into many areas of the curriculum, and influences work at the cutting edge of a wide range of disciplines.

The E-Safety Policy should also be read in conjunction with this policy. Children will be taught about the risks and signs of Cyber Bullying as part of the ICT curriculum.

Computing is more than just another teaching tool. Its potential for improving the quality and standards of pupils' education is significant. Equally, its potential is considerable for supporting teachers both in their everyday classroom role and in their continued training and development.

At St Mary's Catholic Primary School, Computing will be used both to enhance and enrich children's learning experiences as well as to enable teachers to prepare and present their teaching more effectively.

The staff and children see the school as one in which Computing will have a high profile, and where all members of the school community, teaching and administrative, pupils and parents must continue to learn together as Computing capability is acquired within a constantly changing framework.

Within their school experiences, our children should gain skills in using Computing so that they can apply their skills in each area of the curriculum. They should also appreciate that they work in an environment where adults too are learning and using Computing skills to enable the school to run smoothly: for instance, to communicate with parents, to prepare children's work, to run the school budget and to write plans and reports.

Pupils learn how to employ Computing to enable rapid access to ideas and experiences from a wide range of people, communities and cultures. Increased capability in the use of Computing promotes initiative and independent learning, with pupils being able to make informed judgements about when and where to use technology to best effect, and to consider its implications for home and work both now and in the future.

Aims of Computing teaching

- To promote pupils' spiritual, moral, social and cultural development through Computing in accordance with St Mary's Mission Statement.
- To enable children to become confident and knowledgeable users of Computing in a range of contexts.

- To create an atmosphere where children are interested in the development of new technologies and are proud of the school's determination to develop its Computing skills.
- To use Computing to create opportunities for both collaborative and independent learning.
- To develop Computing as a tool for learning, communicating and investigating in all subjects.
- To develop the use of Computing to meet the needs of all pupils and to ensure that Computing is a tool to provide access to the curriculum for pupils with Special Educational Needs
- To develop pupils' understanding of the way Computing is used in their lives and in the outside world including the Internet.
- To promote key skills through Computing through communication, application of number, working with others, improving own learning and performance and problem solving.
- To promote other aspects of the curriculum such as thinking skills, enterprise and entrepreneurial skills, work-related learning and education for sustainable development.
- To prepare pupils for living and working in an increasing technological society.

Objectives

The planned programme of teaching in school provides for
- Regular access for all pupils to a variety of Computing tools and software titles so that they can become confident users of technology
- A range of Computing activities that will enable pupils to make progress in their knowledge and understanding of both hardware and software and what it can do
- A range of activities that will ensure that pupils make progress in their ability to use Computing to generate and communicate their ideas; analyse, process and present information: to model, measure and control external events
- A balance between the teaching of new Computing skills and the opportunities for pupils to use their skills in different contexts
- Opportunities for pupils to reflect on their use of Computing
- Suitable equipment for pupils with Special Educational Needs to access Computing when it is necessary
- To enrich and extend the opportunities within the curriculum for more able pupils
- Differentiated activities and software support for children with learning difficulties to access the curriculum and express their ideas and thoughts in printed, graphical or visual form
- Opportunities for pupils to explore, examine and discuss the use of Computing in the outside world and the effect of this on their lives
- Training for staff to extend their confidence in the use of a wide range of applications of Computing.

Programme of study

The National Curriculum presents the subject as one lens through which pupils can understand the world. There is a focus on computational thinking and creativity, as well as opportunities for creative work in programming and digital media.

There are three aspects to the computing curriculum: **computer science** (CS), **information technology** (IT) and **digital literacy** (DL).

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.

The National Curriculum states that pupils should be taught to:

	Key Stage 1	Key Stage 2
Computer Science	• 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	• 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 • Appreciate how [search] results are selected and ranked
Information Technology	• Use technology purposefully to create, organise, store, manipulate and retrieve digital content	• Use search technologies effectively • 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
Digital Literacy	• 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	• Understand the opportunities [networks] offer for communication and collaboration • Be discerning in evaluating digital content • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

In the Foundation Stage, the Information Communication Technology requirements stated in the Knowledge and Understanding of the World element of the Early Learning Goals Foundation Curriculum, are covered in continuous and blocked units.

Inclusion

The school will provide effective learning opportunities for all pupils by
- Setting suitable learning challenges, for example for pupils who have gaps in their knowledge and for less able and more able pupils
- Responding to pupils' diverse learning needs, for example pupils with special educational needs, from all social and cultural backgrounds, and different ethnic backgrounds
- Overcoming potential barriers to learning and assessment for individuals and groups of pupils, for example by providing special arrangements for the assessment of some individual pupils.

Equal Opportunities

Equality of opportunity for all pupils will be met through creating effective learning environments; securing their motivation and concentration; providing equality of opportunity through teaching approaches; using appropriate assessment approaches and setting targets for learning.

Special Educational Needs

Access to learning for pupils with special educational needs through the use of Computing will include:
providing for pupils who need help with communication, language and literacy; planning, where necessary, to develop pupils' understanding through the use of all available senses and experiences; planning for pupils' full participation in learning and in physical and practical activities; helping pupils to manage their behaviour and to take part in learning effectively and safely and helping individuals to manage their emotions, particularly trauma or stress, and to take part in learning.

Assessment

Assessment of children's work in Computing is ongoing. Achievement is reported to parents at the end of each academic year.

Children's work is saved to the server for reference throughout the year.

Management and organisation

The role of the IT co-ordinator includes the following duties:

- To ensure the development of Computing within the curriculum
- To liaise with the Dudley Grid for Learning Managed Service as necessary for technical and curriculum support
- To develop appropriate schemes of work and the integration of other subjects
- To keep abreast of developments by attending courses, and to arrange INSET for others to attend
- To organise resources; arrange for maintenance; to purchase new resources as needs arise
- To assist and support staff in planning, assessing and implementing Computing
- To keep the Principal informed of developments in Computing

Staffing and Staff Development

All staff have regular access to training opportunities, delivered by DGfL or in-service opportunities delivered by the IT Co-ordinator, in order to keep abreast of current and new technologies and pedagogies.

All staff plan Computing in the core subjects and use Computing to plan and assess children's work.

The class teacher is responsible for managing Computing in the learning environment, within the classroom. The class teacher is also responsible for delivering the schools' Computing scheme of work.

The addition, updating and upgrading of Computing resources is reviewed in line with the Computing Action Plan.

Policy review

This policy will be reviewed in line with the priorities of the School Development Plan. Any suggested amendments will be presented to the Academy Committee for discussion.

Date: 22nd September 2016

Signed (Chair of Academy Committee)

Date for review: