St Edmund's Catholic Primary School

Computing Policy

January 2020

Introduction

Our philosophy is to prepare children for the world in which they live, a world in which technology plays an increasing part.

St. Edmund's Catholic Primary School recognises the fundamental and growing role that Computer Science (CS), Information Technology (IT) and Digital Literacy (DL) have in our society. We are educating children who will encounter an increasing level of technology in the work place and at home. As such we acknowledge and welcome the role that the school has, through the National Curriculum, to educate children in Computing.

The school recognises the place that Computing has in making the curriculum more accessible to those with SEN.

Computing offers new and exciting ways for the children to explore their spirituality as it offers new ways to communicate, explore creation and worship.

We also recognise the important role that Computing has in the delivery and enhancement of other National Curriculum subjects.

The 2014 national curriculum introduces a new subject, computing, which replaces ICT. This represents continuity and change, challenge and opportunity. It gives us the chance to review and enhance current approaches in order to provide an even more exciting and rigorous curriculum that 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 Online Safety Policy (and the Acceptable Use Agreements contained therein) should also be read in conjunction with this policy.

Aims

Our aims in using computing technologies are that all pupils will enjoy using computing facilities, choose and use appropriate applications with confidence and a sense of achievement, develop practical skills in the use of computing, be able to apply these skills to the solving of relevant and worthwhile problems, understand the capabilities and limitations of computing and the implications and consequences of its use.

Principles

Computing is important because its use is widespread in the modern technological world and is likely to continue to grow.

Computing skills are recognised as cross-curricular within the national curriculum and their use is called for or assumed in all subjects to support and enrich pupils' learning. It is also a knowledge and skill area in its own right. As in other areas of the curriculum we incorporate the requirements and recommendations of the national curriculum into our planning and assessment at class, year and school level. (See Appendix 1 National Curriculum 2014)

Strategies

In order to ensure that valuable areas of experience are covered, computer use is integrated into the curricula followed throughout the school, including early years. Pupils will have experiences of a variety of software that allows teachers to provide for progression of skills, concepts and applications. The software to be used throughout the school is shown in the computing scheme of work and the schemes of work for other curriculum areas. All classes will have equal access to the ICT suite for whole class work.

Rationale

The school believes that computing:

- Gives students immediate access to a rich source of materials
- Can present information in new ways which help pupils understand, assimilate and use it more readily
- Can motivate and enthuse pupils
- Can help children focus and concentrate
- Offers potential for effective group working
- Has the flexibility to meet the individual needs and abilities of each student aims

The school’s aims are to:

- Provide a relevant, challenging and enjoyable curriculum for computing for all children
- Meet the requirements of the National Curriculum Programmes of Study for Computing
- Use computing as a tool to enhance learning throughout the curriculum
- To respond to new developments in technology
- The school believes that progress in computing is promoted through regular access and use of technology relevant to a task.
- The predominant mode of working in computing is as individuals or in small groups
- Practice of skills will occur discretely while using computing to support work across the curriculum

Resources

The school acknowledges the need to continually maintain, update and develop its computing resources to keep up with the pace of new technologies. The school will do this by:

- Investing in software that will effectively deliver the strands of the computing curriculum
- Investing in software that will support the use of computing across the curriculum
- Investing in new hardware as appropriate to support effective teaching and learning
- Engage in a rolling programme of hardware replacement to ensure that school hardware remains functional

Planning, assessment, recording and reporting

As the school develops its resources and expertise to deliver the computing curriculum the following opportunities are given;

- Computing topics will be designed to enable pupils to achieve stated objectives
- Pupil progress towards these objectives will be recorded by teachers as part of their class recording system
- Pupils will save work on the school network. Other work may be printed and filed within the subject where the task was set.
- Attitude to computing will be reported upon in the pupil's annual report.
- Planning for the use of cross-curricular computing is a process in which all teachers are involved, wherein computing activities which take into account the breadth of study and knowledge, skills and understanding pupils should acquire and the software they should become familiar with are integrated into the whole curriculum. Subject leaders, supported by the computing leader where appropriate, are responsible for identifying needs and opportunities for the use of computing within their subject area.

Equal opportunities

The School promotes equal opportunities in the following ways;

- All pupils should develop positive attitudes towards computing; they should develop an understanding of the potential of computing and show confidence and enjoyment in its use.
- Priority will be given to ensuring equality of access and quality of experience for all pupils according to need and irrespective of race, gender, disability, age and class. Those who are most proficient with the technology will be encouraged to share their expertise and confidence. All will have the opportunity to make the most of their own potential, within this field.
- Pupils who experience difficulty with mastering the technology or just work more slowly should be allowed extra time or opportunities to work with computing.
- Specialised access software and hardware will be available for pupils with special educational needs. All reviews of provision for pupils with special needs should include consideration of a child's access to a computer.
- Consideration should be given to the most appropriate input device for all pupils but especially those with special needs.

The role of the computing leader

The computing leader is responsible for reviewing and updating the school's policies relating to computing, monitoring standards of achievement and progression, and the induction of new staff in Computing. The role also involves the management of the school's hardware and software and the coordination of repairs. The computing leader will also offer advice on and demonstrate new peripherals as well as appropriate software when requested or appropriate, liaise with other curriculum leaders to ensure effective use of computing in their areas and keep abreast of new software.

Staff training

- The computing leader will assess and address staff training needs regularly or in response to individual needs and requests, throughout the year.
- Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the leader
- Teachers are encouraged to use computing equipment to produce plans, reports, communications and class labelling where possible

Health and safety

- The school is aware of the health and safety issues involved in children's use of computing and the school will dispose of redundant computing equipment responsibly, safely and appropriately.
- Computing equipment should be treated with the same care as any other electrical equipment.
- Pupils should be encouraged from the earliest age to consider and adjust their posture when using the keyboard in order to avoid strain to the arms and back.
- Staff should consult the SENCo with regard to any implications of the use of computing for known medical conditions e.g. Epilepsy, visual impairment.

Security

All members of the school community are bound by the terms of the acceptable use and e-safety policy. All network users are required to sign an acceptable use agreement before being granted access to the school computing facilities. Further details can be found in the acceptable use and e-safety policy.

Users are reminded of the following:

- No CDs, DVDs, flash drives from outside school should be allowed in machines without permission from the computing manager
- Use of computing equipment will be strictly in line with the school's 'acceptable use policy'
- Parents will be made aware of the 'acceptable use policy'
- All pupils and parents will be aware of the school rules for responsible use of computing and the internet and will understand the consequence of any misuse.

- The agreed rules for safe and responsible use of computing equipment and the internet will be displayed in all computing areas.
- The school's computers should not be used at any time for downloading, copying or storing illicit or offensive material, nor should video, music or other files which take up a large amount of space be stored on our servers. Users wishing to download and copy large files to a cd should discuss it with the computing leader.
- No user should attempt at any time to install any software of any kind onto the school's network or onto any workstation connected to it, including screensavers. If a member of staff wishes to have software installed the agreement of the computing leader or Head teacher should first be sought, the licence checked and the relevant media handed to the technician to arrange for installation.
- All users of the network must be aware that their user areas and individual files may on occasion be accessed by the network administrators and files which contravene any part of this policy will be removed.
- All use of the school's computing resources should be in line with this policy and the rules laid out in the school's acceptable internet use policy.

Y Pearson- Computing Coordinator and E-Safety Coordinator

Effective From: 1st September 2020

Review Date: 1st September 2020

Appendix 1

National Curriculum 2014

Computing programmes of study: key stages 1 and 2

National curriculum in England

Purpose of study
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.

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
- 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

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.