COMPUTING POLICY

N	Catholic Primary School
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Date of next review	September 2025
Who reviewed this policy?	Mrs N Middleton

Introduction

The aim of this document is to provide an overview to the new Computing Curriculum and a programme of study across the Key Stages. It should also serve as a glossary of terms allowing a clear understanding.

The national curriculum for computing has four main 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.

This policy document sets out St Edward's vision, aims, principles and strategies for the delivery of Computing for learning and teaching and management purposes. It will form the basis for the development of COMPUTING in the school over the next five years.

Glossary of Terms

Abstraction
Only focussing on the details relevant to the task, in computing this may be by using a database to handle data. In doing this the data can be looked at in specific groups. An example is using Target Tracker to show the progress of pupils on Pupil Premium.

Logic
The non-arithmetic operations performed by a computer, such as sorting, comparing, and matching, that involve yes-no decisions. This might be completed using programs such as Excel or Flowol.

Algorithms
The step-by-step procedure for a machine to complete a task, for example the instructions given to a pro-bot to guide it round a track, or the instructions put into a bee-bot to guide it through a maze.

Data Representation
The way in which information is presented. In its simplest form this could be representing a data set as a graph. However it is also using the appropriate software for the task. Not everything has to be done in Word or PowerPoint.

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.

What do we understand by the term *computing*?

COMPUTING is a tool for the enrichment of teaching and learning, the ability to use COMPUTING effectively is a vital life skill in modern society.
We interpret the term Computing to include the use of any equipment which allows users to communicate or manipulate information (in the broadest sense of the word) electronically. COMPUTING is also seen by the school as an important communication aid towards effective management within the school.

The school's vision

St Edward's vision is to develop staff and pupils who are confident, responsible and effective users of COMPUTING both within COMPUTING lessons and across the curriculum.

Collaboration, Partnerships & Community

- COMPUTING will allow the school community to communicate with other schools and other educational establishments
- COMPUTING will allow a variety of methods of peer communication and interaction
- COMPUTING will broaden the learner's horizons and give them a personalised outlook on the rest of the world
- COMPUTING will encourage parental interaction with their child's learning

Creativity

- COMPUTING will be used imaginatively across the curriculum to support teaching and learning, through a variety of interactive technologies
- COMPUTING will inspire the users to be creative in their approach, promoting enjoyment
- COMPUTING will introduce users to future technological advancements and help them to face the challenges of the 21st Century

Independence

- COMPUTING will enable users to feel safe and confident to make appropriate decisions about their use of COMPUTING in their learning
- COMPUTING will enable the user to use a range of programs independently in order to personalise their learning to meet their individual needs

Awe and Wonder

- Children will be inspired by the fact that there are no obstacles in their learning, every possible question can be answered, stimulating further enquiry
- Children will be enthused by learning, seeing and using a variety of media, including sound recordings, video recordings and photographs and be inspired to create their own. Children's awe and wonder will be encouraged by their experience through the virtual world

Life Skill

- COMPUTING will enable people to communicate through electronic means
- Through COMPUTING, people will become independent and manage different aspects of everyday life
- People will be aware of safety and security when working with COMPUTING

- People will be able to approach new technologies confidently by using existing skills

Thinking and Learning

- COMPUTING will enhance attitude to learning
- COMPUTING will provide personalised learning
- Children will learn COMPUTING skills that they can use in everyday life situations and the wider world
- COMPUTING will not only be a discrete subject it will enrich all subjects

The school's curriculum organisation

- **All pupils receive at least one hour of discrete COMPUTING per week focusing on COMPUTING skills and capability.**
- **COMPUTING is taught across the curriculum through the use of laptops, IWB and multi –media equipment.**

We aim to incorporate COMPUTING into our weekly planning, as both a discrete subject and in the context of other subjects.

To support the progressive development of Computing as a discrete subject we are using the PurpleMash online platform and scheme of work as a planning tool**.** This is used as the basis for long term, midterm and weekly planning. However, COMPUTING teaching is not restricted to this scheme and teachers are actively encouraged to make cross-curricular links within their planning,

In addition to discrete subject teaching, we use COMPUTING as an effective medium to deliver other subjects. We plan for Interactive Whiteboard Work that supports other areas of the curriculum. These opportunities should be interactive and used as a learning tool as well as a teaching tool. It should extend children's understanding in ways not possible during everyday teaching, e.g. visiting a virtual orchestra, and at the same time, the children learn how to apply their COMPUTING skills to real life contexts.

The COMPUTING Coordinator monitors the school scheme of work to ensure that where appropriate the five outcomes of the Helping Children Achieve More framework, being healthy, staying safe, enjoying and achieving, making a positive contribution and economic well-being are integrated into the COMPUTING curriculum.

For example

- Staying safe when working on the Internet
- Researching healthy eating (as part of science and P.E. topics)
- Learning how to use spreadsheets
- Finding out about charities through their websites.

The COMPUTING Coordinator consults with staff to ensure that the National Curriculum Programme of Study for COMPUTING is comprehensively taught

with opportunities for pupils to reinforce their learning. The Coordinator will also monitor the teaching of COMPUTING on a regular basis.

Roles and responsibilities

The roles and responsibilities with regard to COMPUTING within the school are as follows:

The head teacher carries out the following responsibilities:

- ***Data Protection and compliance with other legal requirements.***
- ***Ensuring the effective use of COMPUTING for management and administrative purposes***
- ***Health and safety policy and practice***
- ***Setting the budget for COMPUTING***

The following responsibilities are carried out by the COMPUTING coordinator:

- ***Ensuring the consistent implementation of COMPUTING policy***
- ***Ensuring that pupils use COMPUTING appropriately across the Curriculum.***
- ***Ensuring continuity between year groups***
- ***Monitoring COMPUTING planning, teaching and assessment***
- ***Purchasing/organising COMPUTING resources***
- ***Identifying what COMPUTING support is needed by individual staff***

The COMPUTING technicians carries out the following responsibilities:

- ***Equipment maintenance***
- ***Loading software on to the network***
- ***Managing user accounts***
- ***Ensuring staff's access to COMPUTING***

Every teacher carries out the following responsibilities:

- ***Teaching COMPUTING as a discrete subject***
- ***Assessing COMPUTING***
- ***Using COMPUTING to support the curriculum***
- ***Using COMPUTING as a tool for assessment and monitoring***

Learning and Teaching styles

Staff are expected to employ a range of strategies and to use their professional judgement to decide on the most appropriate learning and teaching style:

These will include:

- using the interactive whiteboard to demonstrate to a group of pupils or the whole class
- leading a group or class discussion about the benefits and limitations of COMPUTING
- Individual or paired work which might include the use of worksheets and help cards
- Collaborative writing and design work in groups
- Where one pupil is used to demonstrate or teach a skill to others, the teacher will ensure that this is of benefit to all those involved.
- Groups that are selected to ensure that all pupils are equally active and involved in the task, and that all have equal access to the computer hardware and software.
- Activities using COMPUTING that are planned in order to allow different levels of achievement by pupils or to incorporate possibilities for extension work.
- Teacher intervention, where appropriate, to reinforce an idea or teach a new point.

Access to COMPUTING

Our COMPUTING equipment is deployed in the following way.

- Each classroom is equipped with a computer that is connected to an IWB and has wired access to the internet/network.
- As of 2020 the school has a computing suite for all classes to use as well as a planned movement to make sure all classes have their own set of Chromebooks.
- The network includes broadband internet connection, a range of software,

and colour laser printing.

- The PPA room has 6 PC's that are networked and a standalone photocopier
- 2 Digital Signage screens – one in the front entrance of the school and another in the staffroom.
- 1 plasma screen in head teacher's office for display.
- Projection and screen connected to audio system in hall.
- The SEN area has an interactive whiteboard, integrated audio system, pupil PC, printer and 10 pupil laptops stored in a trolley.
- St. Edward's Room has 30 desktop pcs and a IWB.
- For management and administrative purposes a range of computers are used, including a SIMS system.
- One free standing IWB and whiteboard for use in meetings.

Central Resources

Central Resources in Communication Technology are the responsibility of the COMPUTING co-ordinator who has a small budget available. They include

1. master copies of all software in use throughout the school
1. a small library of software likely to be used infrequently by classes

i.e. kits of hardware and associated software for control technology.

Online Access

- The school encourages use by pupils of the rich information resources available on the Internet, together with the development of appropriate skills to analyse and evaluate such resources. These skills will be fundamental in the society our pupils are entering.
- The school expects that all staff will investigate the possibilities of using such information where appropriate within the curriculum and that staff will provide guidance and instruction to all pupils in the appropriate use of such resources.

Staff must ensure that all information published on Intranets/ Internet does not contain information that is likely to compromise a pupil or member of staff.

- All members of staff need to be aware of the possible misuses of online access and their responsibilities towards pupils. Wherever possible the school will use fire walled services to try to ensure that undesirable material is unavailable to pupils.
- The school uses the DfE guidelines, Superhighway Safety, for Internet use by pupils. All staff are responsible for explaining the rules and their implications. Pupil use of the Internet is encouraged and will only be permitted upon submission of permission and agreement forms by parents of pupils and by pupils themselves. To that end, the school supports and respects each family's right to decide whether or not to apply for independent access.
- The school complies with all appropriate legislative requirements such as those contained in the Data Protection and Computer Resources Acts

Equal opportunities

- All should have equal access to COMPUTING in order to develop their personal COMPUTING capability.
- When pupils are working in groups, we endeavour to ensure that their hands on experience is equitable.
- The SEND and COMPUTING coordinator jointly advise teachers on the COMPUTING support that can be provided to individual pupils with particular educational needs, including high ability pupils.
- Where appropriate an external specialist is used to assess a pupil's specific need.

Protecting Personal Data

Personal data will be recorded, processed, transferred and made available according to GDPR requirements. The school has moved its online storage of children and staff's work to Office 365 and Purplemash, both of which are fully GDPR compliant and will now be using Google Classroom from the academic year 2021-2022 onward.

Recording, assessment and reporting

- Our school practice for COMPUTING reflects the school's policy on recording, assessment and reporting.
- Teachers observe pupil's work in lessons and assess them against the National Curriculum guidelines.
- We report annually to parents on pupils' progress in COMPUTING providing information on what pupils know, understand and can do and indicate what their next steps are. This is done in the annual reports.
- Information on pupils' attainment and progress are passed to the head teacher for inclusion on the schools OFSTED self-evaluation form.

We ensure that all staff have the appropriate skills to use COMPUTING resources effectively through:

- Skills audits and appraisal
- Completion of Hands on Support training
- Continual professional development training programme based on identified needs

Monitoring and review

There is an annual review of this policy by the Computing Lead and the senior management of the school.