



# St. Ethelbert's Catholic Primary School

## Computing Policy

*"I serve Jesus with my body, heart, mind and soul."*

*Serviam* means 'I serve'. Jesus Christ has taught us that it is more blessed to serve than to be served. At St Ethelbert's school, following our Catholic faith, we serve the whole person – mind, heart, body and soul.

Body – because we care for our wellbeing, our parish neighbourhood and our environment.

Heart – because we teach love and respect for all.

Mind – because we believe in excellent education.

Soul – because we learn to pray and become closer to God as his children.

### **Introduction**

As COMPUTING underpins today's modern lifestyle, it is essential that all pupils gain the confidence and ability that they need in this subject, to prepare them for the challenge of a rapidly developing technological world. Our vision is for all teachers and learners to become confident users of COMPUTING, so that they can develop the skills, knowledge and understanding which enable them to use COMPUTING resources effectively, as powerful tools for teaching and learning.

### **Aims**

Through the use and teaching of COMPUTING, the school aims to:

- ❖ Develop a whole school approach to COMPUTING ensuring continuity and progression in all strands of the COMPUTING National Curriculum.
- ❖ Enable children to become autonomous, independent users of COMPUTING, gaining confidence and enjoyment from their COMPUTING activities.
- ❖ Use COMPUTING as a tool to support teaching, learning and management across the curriculum.

In order to fulfill the above aims it is necessary for us to ensure:

- ❖ systematic progression through the Key Stages
- ❖ that the National Curriculum programmes of study and their associated strands, level descriptions and attainment targets are given appropriate coverage
- ❖ that all children have access to a range of COMPUTING resources
- ❖ that COMPUTING experiences are focused to enhance learning
- ❖ that cross curricular links are exploited where appropriate
- ❖ that children's experiences are monitored and evaluated
- ❖ that resources and equipment are kept up to date as much as possible
- ❖ that staff are provided with training to ensure they are confident to deliver the curriculum
- ❖ that monitoring of the delivery of COMPUTING takes place, to ensure its effectiveness
- ❖ that COMPUTING is reviewed regularly to ensure it continues to meet the needs of our pupils and reflects the changing technology

### **Planning**

We recognise that COMPUTING has the ability to motivate and enthuse pupils, to enable them to work individually, co-operatively and collaboratively and we plan opportunities for pupils to develop these skills. The curriculum is planned to provide pupils with a wide range of relevant, challenging and enjoyable activities to cover the programmes of study for COMPUTING. The scheme of work for COMPUTING provides guidance on the skills and knowledge to be covered by each year group and provides the basis for termly planning, showing learning objectives and types of activities. Medium term planning should identify learning outcomes, differentiation and the resources to be used, as well as a more detailed description of the activity used to meet each objective. Teachers plan their work so that specific COMPUTING skills are taught and that they are practiced and developed during work in other subjects. Work planned will build on

the children's existing skills and provide opportunities to develop new ones. Differentiation is planned for in each area of the COMPUTING curriculum so that children achieve to the best of their ability. Opportunities for embedded COMPUTING as a tool to enhance learning and teaching throughout the curriculum are identified in curriculum planning.

Teachers COMPUTING planning aims to allow children to:

- ❖ use COMPUTING with purpose and enjoyment
- ❖ develop the necessary skills to exploit COMPUTING
- ❖ become autonomous users of COMPUTING
- ❖ use COMPUTING and apply these skills in a meaningful context
- ❖ critically evaluate the benefits of COMPUTING
- ❖ achieve the highest possible standards of achievement
- ❖ apply their knowledge of COMPUTING in a variety of different subject contexts.
- ❖ use COMPUTING to communicate information, find things out and make things happen

### **Inclusion – AEN/Gifted and Talented**

We believe that all pupils have an entitlement to the COMPUTING curriculum regardless of gender, disability, ethnicity, social class or special learning needs and we will ensure that our provision meets the needs of all learners. We aim to maximise the use and benefits of COMPUTING as one of many resources to enable all pupils to achieve their full potential. Activities are planned in order to allow different levels of achievement and incorporate possibilities for extension work. Teacher's planning is differentiated to meet the range of needs in any class, including those children who may need extra support, those who are in line with average expectations and those working above average expectations for children of their age. In planning lessons, teachers will identify the learning goals for the majority of children as well as extension activities for gifted and talented pupils. Consideration will be given to modifying the task, or providing peer or adult support, for those children with AEN.

A wide range of techniques are employed to ensure all children are sufficiently challenged:

- ❖ Children may be required to work individually, in pairs or in small groups according to the nature or activity of the task.
- ❖ Different pace of working.
- ❖ Different groupings of children - groupings may be based on ability either same ability or mixed ability.
- ❖ Different levels of input and support.
- ❖ Different outcomes expected.

### **Cross-Curricular Links**

The nature of COMPUTING as a tool means that there are many opportunities for links with other subjects. An important feature of COMPUTING in the National Curriculum is the intention that it be treated as a cross curricular activity. Like other technologies, COMPUTING is essentially a tool intended to ease the performance of tasks and to make that performance more effective. Whilst some aspects of learning about COMPUTING can be dealt with during specific COMPUTING lessons, there is much that children can only learn by using COMPUTING during other activities. Thus it is essential that COMPUTING be treated as a classroom resource which every child should experience regularly. COMPUTING significantly enhances teaching and learning in other subjects by enabling rapid access to knowledge, information and experiences from a wide range of sources. Practice of skills will occur discretely while using COMPUTING to support work across the curriculum. Each class is allocated a time in the COMPUTING suite to accomplish their COMPUTING scheme of work units and is also allocated additional time in the computer suite to apply the use of COMPUTING to other subject areas.

### **Internet Safety**

Internet access is planned to enrich and extend learning activities. Although the school offers a safe online environment through filtered Internet access, we recognise the importance of teaching our children about online safety and their responsibilities when using communication technology. An e-Safety Policy has thus been drawn up to protect all parties, and rules for responsible internet use are displayed in every room with Internet access. It is essential that all pupils are taught the relevant skills and strategies to remain safe when

using such technologies. This will take place as discrete e-safety lessons, and also as part of the COMPUTING curriculum, or embedded within all curriculum work wherever it is relevant.

## **Assessment**

COMPUTING capability should be monitored regularly in relation to the National Curriculum requirements. On-going formative assessment is an integral part of good practice. Its main purpose is to enable the teacher to match work to the abilities and needs of the children and ensure progression in learning. Children may progress at widely different rates in developing their COMPUTING capability, and it is important, therefore, that both teachers and children keep accurate records of the work they have done and the progress they have made. Teachers will assess module requirements with reference to children's knowledge, understanding and skills. Assessment of COMPUTING skills through the marking of work and teacher observation should be systematic and consistent in assessing levels of achievement. At the end of each COMPUTING unit, teachers will assess each child as to whether or not they have met the intended objectives. This will take the form of Emerging, Expected or Exceeding. An assessment report is handed to the Headteacher at the end of each unit.

These assessments will be submitted to the Head Teacher and COMPUTING Subject Leader and the information is then passed to the next teacher. COMPUTING work from each class is moderated twice yearly and six hard copy samples of work from each year group will be collected for monitoring at the end of each academic year. An annual record of progress in COMPUTING skills is maintained, with explicit reference to COMPUTING being made in the pupil's annual report to parents. At the end of the year a judgment will be made about a pupil's level of COMPUTING capability using the 'best fit' model against the National Curriculum level descriptors.

## **Monitoring**

Monitoring COMPUTING will enable the COMPUTING Subject Leader to gain an overview of COMPUTING teaching and learning throughout the school. This will assist the school in the self evaluation process identifying areas of strength as well as those for development.

In monitoring of the quality of COMPUTING teaching and learning the COMPUTING Subject Leader will:

- ❖ Check plans to ensure full coverage of the COMPUTING curriculum requirements
- ❖ Analyse children's work
- ❖ Observe COMPUTING teaching and learning in the classroom
- ❖ Hold discussions with teachers
- ❖ Analyse assessment data

The COMPUTING Subject Leader's monitoring will ensure that the long term planning ensures full coverage and progression in the programmes of study, the delivery of the COMPUTING scheme of work and the cross-curricular requirements of other subjects. The COMPUTING co-ordinator will consult with each teacher to ensure that the medium term planning for the programme of study can be delivered, through the provision of the necessary software and training if this is required.

## **Scheme**

The school uses the Rising Stars Switched on COMPUTING scheme. The topics are as follows:

Unit	Title	Unit summary	Computing Programme of Study focus	Suggested software/hardware
1.1	We are treasure hunters	Using programmable toys	Programming	Programmable toys/Bee-Bot and Blue-Bot apps
1.2	We are TV chefs	Filming the steps of a recipe	Computational thinking	Paint/Fresh Paint/Movie Maker/iMovie
1.3	We are painters	Illustrating an eBook	Creativity	Tux Paint/Paint/2Paint A Picture/Fresh Paint/IWB software/Word
1.4	We are collectors	Finding images using the web	Computer networks	Web browser/PowerPoint/IWB software/Explain Everything
1.5	We are storytellers	Producing a talking book	Communication/Collaboration	PowerPoint/2Create A Story/IWB software/Explain Everything
1.6	We are celebrating	Creating a card electronically	Productivity	PowerPoint/Word/Clicker 7/Fresh Paint/2Paint A Picture
2.1	We are astronauts	Programming on screen	Programming	Scratch/Kodu/Scratch Jr/Pyonkee
2.2	We are games testers	Exploring how computer games work	Computational thinking	Scratch/Screencast-O-Matic/Pyonkee
2.3	We are photographers	Taking, selecting and editing digital images	Creativity	Picasa/Pixlr.com/Snapseed
2.4	We are researchers	Researching a topic	Computer networks	FreeMind/web browser/PowerPoint
2.5	We are detectives	Communicating clues	Communication/Collaboration	Email system/Excel/Google Sheets
2.6	We are zoologists	Recording bug hunt data	Productivity	Excel/Google Sheets/Picasa/Photo Gallery/Snapseed/Google Maps/Google Earth
3.1	We are programmers	Programming an animation	Programming	Scratch/Scratch Jr/Pyonkee
3.2	We are bug fixers	Finding and correcting bugs in programs	Computational thinking	Scratch/Snap/Pyonkee
3.3	We are presenters	Videoeing performance	Creativity	Movie Maker/iMovie
3.4	We are vloggers	Making and sharing a short screencast presentation	Computer networks	Google/PowerPoint/QuickTime Player/screencast-o-matic/Explain Everything/Adobe Voice
3.5	We are communicators	Communicating safely on the internet	Communication/Collaboration	Email system/Skype/Google Hangouts/PowerPoint/Google Slides
3.6	We are opinion pollsters	Collecting and analysing data	Productivity	Google Forms/2Data/Google Sheets and Google Slides/InspireData/Excel/Word
4.1	We are software developers	Developing a simple educational game	Programming	Scratch/Snap/Pyonkee
4.2	We are toy designers	Prototyping an interactive toy	Computational thinking	Scratch/Snap/Pyonkee
4.3	We are musicians	Producing digital music	Creativity	Isle of Tune/Audacity/LMMS/GarageBand/MuseScore
4.4	We are HTML editors	Editing and writing HTML	Computer networks	Firefox/Chrome/Brackets
4.5	We are co-authors	Producing a wiki	Communication/Collaboration	Learning platform/MediaWiki/Google Sites
4.6	We are meteorologists	Presenting the weather	Productivity	Excel/Google Sheets/PowerPoint/IWB software
5.1	We are game developers	Developing an interactive game	Programming	Scratch/Snap/Pyonkee/Kodu
5.2	We are cryptographers	Cracking codes	Computational thinking	Scratch/Snap/Pyonkee/The Black Chamber
5.3	We are artists	Fusing geometry and art	Creativity	Inkscape/Adobe Illustrator/CoreDRAW/Scratch/Scribble/TurtleArt/Terragen
5.4	We are web developers	Creating a web page about cyber safety	Computer networks	Google/Google Sites/learning platform/WordPress/Adobe Slate
5.5	We are bloggers	Sharing experiences and opinions	Communication/Collaboration	WordPress/learning platform/GIMP/Audacity/Movie Maker
5.6	We are architects	Creating a virtual space	Productivity	Trimble SketchUp/Screencast-O-Matic
6.1	We are adventure gamers	Making a text-based adventure game	Programming	Python (using the IDLE editor)/Trinket.io/Pythonista
6.2	We are computational thinkers	Mastering algorithms for searching, sorting and mathematics	Computational thinking	'Unplugged' resources/Scratch/Snap/Pyonkee
6.3	We are advertisers	Creating a short television advert	Creativity	MovieMaker/iMovie
6.4	We are network engineer	Exploring computer networks including the internet	Computer networks	command prompt/Scratch/open visual traceroute
6.5	We are travel writers	Using media and mapping to document a trip	Productivity	Google Maps/Google Earth/Pixlr/Snapseed/MovieMaker/iMovie/Audacity/Garage Band/TrackRec
6.6	We are publishers	Creating a year book	Communication/collaboration	Publisher/Scribus/iBook Author/Pages/Book Creator/Google Drive

## Resources

COMPUTING resources are deployed throughout the school to maximise access, to enhance teaching and learning and to raise attainment. To enable regular and whole class teaching of COMPUTING, the school has a COMPUTING suite which all classes in Key Stages 1 and 2 use each week to develop their COMPUTING skills. To support the cross curricular nature of COMPUTING, slots in the COMPUTING suite are set aside for each class during other curriculum lessons and at least one computer is located in each class. This is used for additional tasks which require the use of COMPUTING as well as presenting teaching materials on the IWB. All computers within the school have a fast Broadband connection to the internet and all classrooms are equipped with interactive whiteboards, which are linked to the internet, as there is wireless network access throughout the school. Purchases are planned to ensure that the computer equipment and software remains up to date. The COMPUTING Subject Leader reviews new equipment and software as it comes on the market in order to remain up to date with developments and to offer advice on

the purchase of new resources. The COMPUTING Subject Leader holds an up to date list of all the software licenses and on which computers the software is installed. All staff are informed of the licensing laws for software and the risks from virus infection.

## **Staff Development**

The co-ordination of COMPUTING INSET is linked to the SDP. Staff meetings and Training Days (or parts of) may be devoted to COMPUTING guiding staff (including TA's) in the use of new hardware and software. The COMPUTING Subject Leader will carry out a regular audit of staffs' skills, identifying areas for development and training needs. Time will be allocated for the Subject Leader to support staff, and all staff will be given the opportunity to attend courses to update their skills as required. Training will be made available for all staff in school, including non-teaching staff. The training needs of the COMPUTING Subject Leader will also be met and time will be provided for attendance at suitable training events.

## **Health and Safety**

The school has a health and safety policy and the particular issues associated with the use of COMPUTING equipment are:

- ❖ all electrical equipment is regularly checked
- ❖ wires must not be allowed to trail on the floor or worktops
- ❖ chairs and tables are at an appropriate height for the children
- ❖ lighting is suitable and monitors are not facing bright direct lighting from a window
- ❖ the room is adequately ventilated
- ❖ children and staff do not eat or drink near the computers
- ❖ children are aware of the dangers of using electrical equipment and are taught the rules for safe use of the computers, such as how to switch them on and off correctly
- ❖ children do not work at the computer for long periods of time without a break

## **Security**

- ❖ All administration and curriculum machines in school are installed with virus protection software which is regularly updated.
- ❖ The use of COMPUTING will be strictly in line with the school's 'Acceptable Use Policy'.
- ❖ Software brought into school will not be installed onto computers unless its origin is known and the correct license is available.
- ❖ The administrator will be responsible for regularly updating anti-virus software.
- ❖ All pupils and parents will be aware of the School Rules for Responsible Use of COMPUTING and the Internet.
- ❖ The agreed rules for Safe and Responsible Use of COMPUTING and the Internet will be displayed in all COMPUTING areas.

**Written by Mr R Joss  
(To be reviewed February 2019)**