Computing Policy

St Brendan's Catholic Primary School

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Computing Policy

At St Brendan's Catholic Primary School, we believe that every child should have the opportunity to use and experience a range of new technologies. We aim to encourage children to become computer literate, enabling them to fulfil their potential in an increasingly computer-dominated world. Learning key computer skills develops essential typing, research, coding and data handling concepts, which will support our children throughout their future. Computing at our school is defined using three strands: **Computer Science, Information and Communication Technology (ICT) and Digital Literacy.** To distinguish between these three strands, computer science enables pupils to develop key cognitive skills including programming devices, ICT provides pupils with vocational skills that are valuable in secondary and higher education and employment, and digital literacy helps keep pupils safe when using technology.

As a school we aim to:

- Provide children with an exciting, high-quality, computing education that produces competent, confident computer users, who are digitally literate by the time they leave the school;
- Ensure that our children have a secure knowledge of online-safety and have the skills to tackle any upsetting or inappropriate content they might access online;
- Deliver a computing curriculum that is in accordance with the National Curriculum (September 2014);
- Use computers/ipads to enhance the teaching of the National Curriculum in computing and other lessons;
- Provide pupils with a range of opportunities to use computer software; and
- Ensure computing is used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities.

In weekly computing lessons, as well as during other curriculum sessions, pupils use laptops and Ipads to support their learning. In addition, each primary phase, including EYFS, have access to programmable devices such as BeeBots and Crumbles. To enhance the well-structured and progressive NCCE computing curriculum with clear links between year groups, the school makes use of a range of computer programmes: including Google Drive which allows children to access Google software similar to that on Microsoft e.g. Docs/Sites/Sheets; Scratch for programming; and familiar search engines such as Google. The children access cross-curricular learning using IXL for maths, Times Tables Rockstars, Nessy spellings/fingers and Class Dojo to share their learning, which are all available from home as well as school.

St Brendan's overall aims are in line with the expectations of the current national curriculum for computing which ensures all pupils:

1. Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
2. Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
3. Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems

4. Are responsible, competent, confident and creative users of information and communication technology.

Implementation of Policy

Teaching and Learning

At St Brendan's, to enhance the teaching and learning of all curriculum areas within the school, teachers employ a range of strategies including:

- Demonstrating to the whole class/group using the IWB
- Discussion with the whole class/group
- Individual or paired working
- Collaborative group work including sharing work with others as presentations, including the Green Screen
- Encouraging pupils to demonstrate new skills to others as peer teachers
- Use of ipads and laptops to build on computing skills
- Promote the safe use of the internet throughout all subjects where computing is used or discussed for example PHSE.

At St Brendan's, the computing scheme of work incorporates cross-curricular links and discrete computing skills. Computing should be taught as a separate lesson teaching the discrete skills required, as well as part of our creative curriculum. Children in Key Stage 1 and Key Stage 2 should all spend at least 1 hour per week studying computing specific topic content for their age range. Additional time will be for using computing to support other subjects for example: research purposes, green screen videos, photography, accessing IXL and other online learning platforms.

At St Brendan's, the computing curriculum provision covers the following topic areas (across all year groups);

- Programming
- Computing networks and systems
- Creating media
- Data and information
- Online safety

At St Brendan's, children will be encouraged to evaluate both their work and the computer effectiveness. The nature of computing as a tool means that there will be many opportunities for links with other subjects.

In order to ensure progression and continuity throughout the school, the school follows a scheme of work, NCCE, which outlines curriculum coverage, progression and context of computing as a discrete subject and across the curriculum.

Expectations in computing

At the end of **KS1** children should:

1. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
2. Create and debug simple programs
3. Use logical reasoning to predict the behaviour of simple programs
4. Use technology purposefully to create, organise, store, manipulate and retrieve digital content
5. Recognise common uses of information technology beyond school
6. 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.

At the end of **KS2** children should:

1. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
2. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
3. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
4. 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
5. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
6. 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

7. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Health and Safety

At St Brendan's equipment is maintained to meet the agreed safety standards.

Age appropriate safety rules are displayed in the learning environment.

Food and drink should not be consumed near ICT equipment.

It is the responsibility of staff to ensure that classroom ICT equipment is stored securely in the trolley's provided and placed in charge ready for the next session.

Staff should ensure that the children are aware of the dangers of continuous use (e.g. Eye/wrist strain etc.).

An adult should always supervise children when they are accessing information via the Internet. The school's internet provider, EXA, provides internet filtering.

Online-Safety and online behaviour (additional information is available in the Online Safety, Peer on Peer abuse, Behaviour and Acceptable Use policies)

At St Brendan's staff and pupils are made aware of the importance of online-safety and sign an acceptable use agreement on entry to school at Key Stage 1 and Key Stage 2.
Staff, pupils or parents with concerns about online-safety are to contact the Online Safety Lead or the Head Teacher if they have any concerns. Recording incidents is the responsibility of the concerned member of staff on the forms provided. The forms will be reviewed and actioned by the Online Safety lead in consultation with the Head Teacher or SLT and in response to other guidance from the above policies.

At St Brendan's we ensure that our children are free from the threat of terrorist or extremist material by using the internet filtering provided by our internet provider. If members of staff suspect that children have accessed extremist material they must report it immediately to the designated persons, as stated above.

At the beginning of each term, the children will be reminded of expectations and rules that should be followed to ensure all are safe when using the internet. Alongside the computing

planning there are specific lessons designed to support online safety, supported by CEOP/SWGfL and other online safety websites for schools. St Brendan's also celebrate SID each year to ensure awareness is maintained as well as visits from external agencies who specialise in online safety issues in our county.

Inclusion and Equal Opportunities

At St Brendan's the computing curriculum is concerned with the learning and participation of all students. Teaching is planned with this in mind and Teaching Assistants are available to support all students, ensuring good progress is made.

At St Brendan's we aim to provide suitable learning opportunities regardless of gender, ethnicity or home background.

Regular assessment of pupil needs and understanding plays a vital role here, as does the provision of appropriate resources. Ipads, laptops, the Internet and our whiteboards offer a wealth of materials that can be matched to suit individual or group needs, enabling all pupils to develop their ICT skills. More able students will be encouraged to support their peers and share their skills with others.

At St Brendan's the Computing Co-ordinator is responsible for

- overseeing the Computing curriculum
- monitoring the learning and teaching
- ensuring the assessment is relevant and informative
- making purchasing decisions
- ensuring all staff are appropriately trained in both Computing hardware and software
- keeping up to date with developments in computing
- liaising with the technician
- observing computing lessons
- monitoring / supporting computing planning
- preparing policy documents
- advising colleagues and helping to develop expertise
- liaising with the computing team
- contributing to staff computing INSET training

Assessment

At St Brendan's children should be assessed and apprised of their progress in understanding and applying computing. This will be self evident from the work produced in a situation where no teacher support is given once a task has been assigned.

A portfolio of children's work will be kept electronically, as well as in the subject leader's file. Teachers from each year group should place a minimum of 2 pieces of work in the portfolio each term, showing progress made from the first to the last lesson, for a minimum of two children in the class, covering different abilities. This might include children's computing work, digital photos, video or audio material or scanned work.

Disability Equality Impact Assessment

This policy has been written with reference to and in consideration of the school's Disability Equality Scheme. Assessment will include consideration of issues identified by the involvement of disabled children, staff and parents and any information the school holds on disabled children, staff and parents.