

**St Ignatius Primary School**

**Computing Policy**

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| Status | Non Statutory |
| Date of policy adoption | FEBRUARY 2023 |
| Date of policy review | FEBRUARY 2025 |

**Curriculum Intent:**

Our aim is to give children a thorough and ambitious education in computing, equipping them to use technology, computational thinking and creativity to understand and change the world. It is now more important than ever that children understand how to use technology positively, responsibly and safely, and that they see good models of this.

By the time they leave St Ignatius, children will have gained key knowledge and skills in the three main strands of the National Curriculum for Computing (2014). These strands are: computer science (programming and understanding how digital systems work), information technology (using computer systems to create, store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully).

Our knowledge- engaged curriculum enables children to understand how computers and computer systems (such as the internet) work, and how they are designed and programmed. It ensures they know what to do if they have concerns about anything they encounter online, and how to be safe, responsible and respectful when using the internet. Equally, our offer provides many opportunities for learners to apply their evolving knowledge imaginatively, becoming fluent and creative in their masters of computing. The depth and breadth of our coverage aims to provide all our children with a solid grounding for future learning and the ability to become active digital citizens in the modern world.

Online safety is a key focus in our curriculum. At St Ignatius Catholic Primary School- we ensure our children are taught the importance of safe internet use ( at home and at school) during computer lessons and through whole-school ‘Safer Internet’ focus weeks in September and February, where there is a school assembly and class-based activities. Within computing we also teach children the skills they need to be able to question what they see on the internet and make their own judgements; an increasingly important aspect of being a digital citizen in the time of ‘fake news’. Children have the opportunities to use ICT outside the timetabled lesson slot as it is embedded across the curriculum.

We subscribe to National Online Safety which supports the teaching of online safety and provides vital training for staff. We have recently been accredited ‘Certified status’ as an National Online Safety school. Pupils and staff complete user agreements each year and our Online Safety page on the school website provides a great deal of information, support and resources for parents.

**Aims and Objectives:**

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 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

**Subject content:**

**Key Stage 1**

Pupils should be taught to:

* understand what algorithms are; how they are implemented as programs on digital deviced
* create and debug simple programs
* use logical reasoning to predict the behavior 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, analyzing, evaluating and presenting data and information
* use technology safely, respectfully and responsibly; recognize acceptable/unacceptable behavior; identify a range of ways to report concerns about content and contact.

**Implementation of the Curriculum**

At St Ignatius, computing is taught in half termly blocks, Teachers use specified units from the updated ‘Switched On Computing’ scheme, published by Rising Stars, as a starting point for the planning of their computing lessons.

The key knowledge and skills that must be taught within each unit have been identified and carefully mapped to support the progression of children’s learning across the primary phases., building towards mastery at the end of key stage objectives from the National Curriculum. Freedom for teachers to develop and adapt computing units within the framework of the progression map leads to rich links with engaging contexts in other subjects and topics, while still ensuring systematic coverage of objectives. Cross-curricular links with the foundation subjects have been suggested on the year group overview. We very much encourage staff to incorporate technology throughout the wider curriculum

[Switched on Computing](https://www.risingstars-uk.com/series/switched-on-computing) also recognises the ‘spiral’ nature of progression within computing: new knowledge, skills and understanding within each of the strands of the subject build on what’s gone before. Thus, for example, in programming pupils are introduced to a simple sequence of recorded button presses on a Bee Bot in Year 1, then move on to building programs by snapping together blocks to move sprites in Scratch Jr before going on to create their own animations, quizzes and games in Scratch. Pupils progress from simpler to more complex programming languages, but also build up their conceptual understanding of programming from sequence, through repetition and selection to variables, input and output.

At the start of each computing unit, teachers seek to link new learning to previous learning in line with the school’s approach to building upon key knowledge. The use of KWL grids is used to review what the children already know.

An overview of each unit’s key vocabulary, key knowledge and outcomes is shared with parents on the termly curriculum brochures. We are also working towards developing knowledge organisers which pupils can use to reinforce key vocabulary and understanding. After completing a unit, learners complete a brief key knowledge quiz to assess their retention and understanding of core facts and concepts.

The implementation of our new progression framework in computing ensures a balanced coverage of the three computing strands (computer science, information technology and digital literacy). The children work on the three strands each year. As they progress through the school, children build on their prior learning within each strand, covering new or deeper knowledge and developing their technical skills. The relevant, context-embedded computing experiences through which this knowledge-engaged curriculum is taught will benefit learners in secondary school, further education and future workplaces.

From research methods, use of presentation and creative tools and computational and critical thinking, computing at St Ignatius gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives.

**Resources:**

To help with the implementation of the computing curriculum we have a variety of hardware available, including:

* Laptops
* Ipads ( a set of 30 in each building which staff book out)
* We are also currently setting up our ICT suite with new desktop PC’s to be used

Printers and Photocopiers- Each building has at least one colour photocopier which is networked to each computer.

Interactive Whiteboards- Each classroom has an interactive whiteboard linked to the class teacher’s laptop/desk top.

Other Resources to support the curriculum:

Headphones

Microphones

We are working towards a situation where we have a timetabled opportunity to use the computers in the ICT suite and for the Ipads, the staff are able to book them out within their buildings.

All pupils in KS2 have a J2E log in for the J2E platform.

**EYFS:**

The computing curriculum is introduced in the EYFS, as a foundation for work in KS1. Children are given the opportunity to begin coding on the Beebot app. Children in Nursery and Reception and also supported to create drawings, recordings and other digital content on Ipads and on the IWB. Digital literacy and online safety is developed through age- appropriate stories such as Digiduck, and is reinforced through participation in whole-school events such as Safer Internet Week.

**Equal Opportunities**

St Ignatius Catholic Primary School will ensure that all children are provided with the same learning opportunities regardless of social class, gender, culture, race, disability or learning difficulties. As a result we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to computing and all staff members follow the equal opportunities policy. Resources for SEN children and children who are working at greater depth are made available to support and challenge appropriately. We use adapted resources wherever possible, such as visual timetables, different coloured backgrounds, enlarged fonts and screen printouts.

**Enrichment**

Children are given as many opportunities as possible to use technology in school- not only in computing lessons. Online safety is of paramount importance; children are exposed throughout the year in our ‘focus weeks’ where the importance of online safety through role play and drama techniques are used to explore the rights and wrongs of situations. Additionally we take part in Safer Internet Week in February where we have a whole school focus on online safety, where the children are involved in discussion, assemblies and class-based activities.

In Year 6, we provide the children with the opportunity to become digital leaders whereby they are able to maintain and manage the technology used in assemblies and ipads around the school.

**Impact**

Our approach to the curriculum provides fun, engaging and meaningful learning for all pupils, in which the children understand not only the content that is taught but the opportunities offered to them by their computing education, enabling them to become creators and change-makers in our digital world. The impact of our curriculum and the quality of children’s learning is evident in their work, which is shared, published and celebrated on Class Dojo and in their computing books- using photographs etc to showcase digital work. Half-termly monitoring of these outcomes, alongside key knowledge quiz results, and interviews with teachers and learners, allows the subject lead to ensure the knowledge- engaged curriculum taught is being learned and retained by all pupils. All of this information feeds into teachers’ future planning and enables knowledge of pupil’s knowledge and skills. Through cross-curricular uses of computing in other subjects, teachers are able to revisit misconceptions and knowledge gaps in computing in tandem with other curriculum areas.

**Health and Safety Guidelines:**

We recognise and take very seriously the welfare and safety of all users of computing in school.

* Parents are asked to give permission for images of their children to be published on the school website, in the press or in school publications. If consent is not given this is recorded in the child’s records and teachers are informed through documents in the class folder.
* All content written, viewed or clicked upon on a school-networked computer will be monitored through LGFL approved monitoring software. This will collect dates, times and user and computer details along with any potential violations.
* From Year 1, if pupils are accessing the computer suite they will be given their own computer logon and password.
* All computer users will be presented with an Acceptable User Policy (AUP) each year in September. The user will have to agree to this policy before being allowed to use the computer. This applies to pupils in KS1/KS2 and ALL staff. The AUP’s are kept in the class folders.
* Safe use of E-mail and the internet is specifically taught as during our Internet Safety Weeks and threaded throughout the computing curriculum.

It is unlikely that the amount of exposure to computer screens in the classroom will cause eye strain, or longer damage. However, it is advised that the amount of time pupils uses computers in any one session is limited to 30-40 mins for EYFS/KS1 and 45 minutes for KS2.

Other factors to be considered include ensuring that the screen brightness is not set too high, avoiding trailing leads and ensuring that all equipment is easily accessible, securely balanced and comfortable to use. Headphones should be stored safely and not allowed to trail on the floor. Children should be supervised when switching computers on and off. Food and drink, including water bottles, are not permitted within the computer suite or in the location of where Ipad technology is being used.

**Subject Leader Responsibility:**

The computing coordinator is responsible for overseeing the development, implementation and impact of an ambitious and engaging computing curriculum, which enables all pupils to progress in their mastery of computer science, digital literacy and information technology. The targets and priorities for the development of computing are outlined at the start of the year in the SDP and in the computing action plan. Measures of success are analysed and evaluated by the computing coordinator as part of the half termly cycle. Learners outcomes in books and online, end of unit key knowledge quiz results and pupil self assessments are all looked at in order to measure the impact of our curriculum and identify areas for action. Pupil and teacher voice interviews and a review of lesson slides are also undertaken as part of the cycle, enabling the subject leader to maintain a clear picture of computing across classes and key stages. This monitoring process allows the coordinator to assess and address staff training needs on a regular basis, guiding the annual development plan process and response to individual needs and requests throughout the year.

Where necessary, the computing coordinator will work alongside the technician to support staff to overcome technical issues with computing technology at school, and help to support parents with the digital devices and software that they use with their children for home learning.

The computing coordinator will oversee and maintain resources to support the computing curriculum. They will maintain links with external agencies to explore opportunities to enrich the computing curriculum and will ensure high standards across the computing curriculum through effective monitoring, modelling of lessons, and support with planning, as appropriate. The computing coordinator also runs a coding club for KS2 pupils.

**Parents:**

At St Ignatius we aim to support parents with understanding technology and in particular online safety. We regularly share information with parents on Class Dojo and our online safety page is updated regularly so that parents can access how to set up parental controls, family user agreements etc. We are members of National Online Safety and parents are encouraged to complete their own CPD using this website.

Policy to be reviewed Summer 2023.