

Sacred Heart Primary CVA



Our Computing

algorithm **program** **debugging**
sequence **variable** **procedure**
programming language
function **computational logic**
software **hardware** **operating**
system **abstraction**

Technologies such as artificial intelligence, automation and robotics are changing the way that we live, work and socialise. Schools play a vital role in teaching young people the skills they'll need to thrive in a digital future, through the national computing curriculum.

The Patron Saint
is: Saint Isidore of
Seville

What would Jesus do?



Do what Jesus did!!



Our Mission:

To make good choices in all areas of our lives, using Jesus as our role model.

Intent



We intend to provide the pupils at Sacred Heart with a high-quality computing education that 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. (National Curriculum 2014).

Our aim is for children to become confident users of technology and to develop the skills and knowledge relating to Computer Science, Digital Literacy and Information Technology. Computing education is an integral part of preparing children to live in a world where technology is continuously evolving. Work and social activities are being increasingly transformed by access to varied and developing technology. We endeavour to ensure that our children fully grasp the relevance of and the possibilities of emerging technologies so that they can play an active, yet safe part in this rapidly changing landscape. Using our carefully planned and researched progression grid, written by NCFE, we aim to build children's knowledge and understanding from Foundation to Year 6 following the expectations of the National Curriculum 2014 and Development Matters 2021. To enable children to build and apply a repertoire of knowledge and skills linked to the three strands of the national curriculum: computer science, digital literacy and information technology. Build knowledge of principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Become digitally literate – able to use, express themselves and develop ideas through information and communication technology. To encourage children to become confident, creative and independent learners, able to solve problems using computational thinking. To make high quality cross-curricular links whilst maintaining the distinctive nature of the subject. To ensure children recognise the opportunities and threats that exist from the use of technology and understand how to access technology safely.

Implementation

[Link to the National Curriculum for Computing](#)

The school uses the DfE approved National Centre for Computing Education's Teach Computing resources as a basis for providing a clear and comprehensive scheme of work in line with the National Curriculum in KS1 and 2 according to the recommended schedule. This has been reviewed since the last policy and with consultation/advice from an SME to a more bespoke, streamlined version of the NCCE's planning. Sacred Heart supplement this scheme 2 coding units a year from Discovery Education.

Children have the opportunity to explore and respond to key issues such as digital communication, cyberbullying, online safety, security, plagiarism and social media.

The importance of online safety is continuously reinforced and shown through contributions to our 'Keeping Safe' display. Parents are informed when issues relating to online safety arise and further information/support is provided if required. Progress is assessed on an on-going basis using the NCCE in-built quizzes or assessment rubrics for each unit of learning. This ensures teachers are aware of individual pupil's progress in computer science, information technology and digital literacy.

Children will have opportunity throughout the unit and then throughout the year to retrieve knowledge through different retrieval practice techniques. This is up to the teacher to choose these techniques that match the pupils age and needs.

E-safety is developed both through the NCCE/ProjectEvolve resources, and through PSHE lessons and activities undertaken in our Trust-wide Internet Safety Day.

Children in all year groups are exposed to a range of topics which encourage progression.

Early Years explore technology and computing the Understanding of the World strand of the EYFS curriculum. This involves guiding the children to develop sense of their technological world through opportunities to explore, observe and find out about technology. They are assessed according to the Development Matters Attainment targets.

Assessment, Feedback and Reporting

Teacher assessment and Feedback – This is ongoing in lessons and on the completion of a topic, using assessment tools embedded within the NCCE 'Teach Computing' curriculum e.g: knowledge quizzes or rubrics to assist with teacher assessment for KS1 and 2. Throughout school, questioning, observation of work and approaches used, pupils' responses to their own and each other's work, and final outcomes evidenced in books/saved work all inform the assessment process. Feedback is given in the moment and work is rag rated, green is fully understood, orange if not.

Reporting to parents – Comments regarding progression against the age-related expectations for this subject are reported to parents as part of the end of year report.

Reporting to Governors

Once an academic year the subject leader will create a written report to governors.



Acceptable Use of School Equipment

Our pupils and staff adhere to the acceptable use policy. This is renewed with children every year on Safer Internet Day.

Safety and Safeguarding

To protect and Safeguard our pupils, we have a firewall and filter systems that are managed by our Trust. All staff ipads have coded access unknown to the pupils. At Sacred Heart we take the safety of our pupils very seriously. We use our communication channels to inform parents of any issue that arise nationally or in the local area. We encourage everyone in our community to use the VVVVVVAPP

Ideas to extend learning beyond the classroom and into the home.

Thinkfun – All ages

<http://info.thinkfun.com/stem-education/6-unplugged-coding-activities-for-hour-of-code>

Unplugged activities for children to learn the basics about algorithms without a computer.

Raspberry Pi Foundation – Digital Making at Home (KS2)

<https://www.raspberrypi.org/at-home/>

Join the weekly code-along using open projects based on a weekly theme, with different levels available for all abilities, allowing you to be open-ended with opportunities for making and creativity

UK Safer Internet Centre (KS1 and KS2)

<https://www.saferinternet.org.uk/advice-centre/young-people/resources-3-11s>

Online safety resources aimed at 3 -11 year olds

Code Club (KS2)

<https://projects.raspberrypi.org/en/codeclub>

Projects and activities for home learning and a parent guide

Barefoot (KS1 and KS2)

<https://www.barefootcomputing.org/homelearning>

Downloadable activities and games for children, links to live lessons and a guide for parents

Monitoring

The Curriculum leader, alongside SLT, is responsible for monitoring and evaluating curriculum progress.

This is done through:

- work scrutiny,
- planning audits,
- resource audits,
- learning walks which involve lesson observation drop-ins,
- pupil interviews,
- subject-knowledge audits with staff.

Development Area for this academic year:

1: Ensure that the computing curriculum - and the teaching of it – drives progress.

2: Ensure that our children are fully aware of the dangers presented to them in their online worlds, having engaged in pertinent discussions about e-safety through a broad and balanced curriculum incorporating the NCCE/ProjectEvolve resources and Trust-wide initiatives.

3: Ensure that equipment and resources for staff and pupils are audited to ensure that they are fit for purpose.

