Computing Policy 2026

St John Vianney Primary School

Computing Policy



Being SJV

Sincere † Joyful † Virtuous

Vision

At St John Vianney Primary School, we recognise that technology plays a vital role in modern society and is an essential part of children's education and future opportunities. We are committed to delivering a high-quality Computing curriculum that equips all pupils with the knowledge, skills and understanding needed to participate safely, responsibly and confidently in an increasingly digital world.

Our Computing curriculum is designed in line with the National Curriculum for Computing (2014) and is delivered through the National Centre for Computing Education (NCCE) Teach Computing Curriculum. Through rich, engaging and progressive learning experiences, we aim to develop pupils who are creative problem solvers, computational thinkers and responsible digital citizens.

Computing has strong links with mathematics, science, design and technology and other curriculum subjects. We therefore strive to provide meaningful opportunities for pupils to apply their computing knowledge across the wider curriculum, enabling them to become digitally literate learners who can communicate, create and innovate.

Intent

At St John Vianney Primary School, our Computing curriculum is designed to ensure that every child develops the knowledge and skills needed to thrive in a digital society. Through a carefully sequenced and ambitious curriculum, pupils gain a secure understanding of computer science, information technology and digital literacy while developing confidence, resilience and independence when using technology.

We aim to:

- Fulfil and exceed the expectations of the National Curriculum for Computing.
- Deliver a progressive curriculum through the NCCE Teach Computing Curriculum.
- Develop confident and competent users of technology who can apply their learning across a range of contexts.
- Promote computational thinking through problem solving, logical reasoning and creativity.
- Ensure pupils understand how digital systems work and how they can create and program digital content.
- Foster responsible and respectful online behaviour.
- Equip children with the knowledge and skills required to stay safe online.
- Develop digital literacy so pupils can participate effectively in an increasingly digital world.
- Encourage creativity, collaboration and communication through technology.
- Prepare pupils for future education, employment and life in modern Britain.

Curriculum Aims

By the end of primary school, pupils will:

Computer Science

- Understand and apply the fundamental principles of computer science, including:
  - abstraction
  - decomposition
  - logic
  - algorithms
  - pattern recognition
  - data representation
- Analyse problems in computational terms.
- Design, write and debug programs.
- Use logical reasoning to explain how algorithms work.
- Develop confidence when using programming languages and digital tools.

Information Technology

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Select appropriate digital tools to achieve specific outcomes.
- Collect, analyse and present data in meaningful ways.
- Evaluate digital content and systems effectively.

Digital Literacy

- Use technology safely, respectfully and responsibly.
- Recognise acceptable and unacceptable online behaviour.
- Understand how to report concerns and seek support.
- Develop an awareness of privacy, consent, digital footprints and online relationships.
- Become informed and responsible digital citizens.

Artificial intelligence

Develop an understanding of Artificial Intelligence and emerging technologies, enabling pupils to use digital tools safely, responsibly and critically within an ever-changing technological world.

Implementation

Curriculum Structure

The Computing curriculum is delivered using the NCCE Teach Computing Curriculum, which provides a clear, evidence-informed framework for progression from Early Years to Year 6.

The curriculum is organised into the following strands:

Computer Systems and Networks

Pupils learn how digital devices and systems work, how information is transferred and how technology connects people and organisations.

Programming

Pupils develop programming skills through creating, modifying and debugging programs while applying computational thinking.

Creating Media

Pupils use a range of digital tools to create and edit digital content, including text, images, audio, video and animation.

Data and Information

Pupils learn how data is collected, stored, organised and presented to answer questions and solve problems.

Online Safety

Online safety is taught explicitly throughout the curriculum and reinforced across all technology use within school.

Early Years Foundation Stage

In EYFS, computing knowledge and skills are developed through the areas of learning within the Early Years Foundation Stage Framework. Children are provided with opportunities to:

- Explore a range of technology.
- Develop problem-solving and logical thinking skills.
- Use programmable toys and age-appropriate digital devices.
- Learn how technology is used safely in everyday life.
- Begin to communicate and create using digital tools.

Teaching and Learning

Teachers use a range of teaching approaches to ensure all pupils can succeed, including:

- Direct instruction and modelling.
- Collaborative learning and discussion.
- Practical, hands-on activities.
- Problem-solving opportunities.
- Independent exploration and enquiry.
- Retrieval practice and regular revisiting of key knowledge.
- Opportunities for reflection and evaluation.

Learning is carefully sequenced so that new knowledge builds upon previously taught concepts, enabling pupils to deepen their understanding over time.

Computing is taught as a discrete subject and is also used across the wider curriculum where appropriate to enhance learning.

Artificial Intelligence (AI) and Emerging Technologies

At St John Vianney Primary School, we recognise that Artificial Intelligence (AI) is becoming an increasingly important part of everyday life, education and future employment. As technology continues to evolve, our Computing curriculum is designed to prepare pupils to understand, evaluate and use AI tools safely, responsibly and ethically.

Pupils are introduced to age-appropriate concepts relating to AI and machine learning through the National Centre for Computing Education (NCCE) Teach Computing Curriculum and wider digital literacy learning. Children develop an understanding that AI systems are designed by humans, can make mistakes, and should be used thoughtfully and critically.

Through Computing and Online Safety lessons, pupils learn to:

- Understand what Artificial Intelligence is and where it is used in everyday life.
- Recognise the benefits and limitations of AI technologies.
- Use AI-supported tools safely, responsibly and appropriately when directed by teachers.
- Critically evaluate information generated by AI and understand that not all online content is accurate or trustworthy.
- Understand the importance of privacy, consent and protecting personal information when using digital technologies.
- Develop awareness of digital footprints and how information may be collected, stored and used.
- Recognise potential online risks, including misinformation, disinformation, scams, deepfakes, phishing attempts and manipulated digital content.

- Demonstrate respectful and ethical behaviour when using emerging technologies.
- Consider the impact of technology and AI on society, future careers and everyday life.

Teachers regularly review and adapt Computing provision to reflect developments in technology, ensuring learning remains relevant and future-focused. Where appropriate, pupils are provided with opportunities to discuss current technological developments and explore how digital technologies can be used creatively, responsibly and for the common good.

The teaching of AI is closely linked to our school values, safeguarding procedures, Online Safety curriculum and our commitment to developing responsible digital citizens who are prepared for life in an increasingly technological world.

Resources

Pupils have access to a range of technology, including:

- Laptops and desktop computers.
- iPads and tablet devices.
- Programmable devices and robotics equipment.
- Interactive classroom technology.
- Audio and visual recording equipment.
- Digital platforms that support teaching and learning.

All internet use is filtered and monitored in accordance with safeguarding requirements.

Online Safety

Online safety is a core component of our Computing curriculum and safeguarding provision.

Pupils are taught how to:

- Keep personal information private.
- Identify risks online.
- Recognise cyberbullying and inappropriate behaviour.
- Report concerns to trusted adults.
- Evaluate online information critically.
- Manage their digital footprint responsibly.
- Understand age-appropriate use of online platforms and digital content.

Online safety education is embedded within Computing lessons and reinforced through assemblies, themed events such as Safer Internet Day, PSHE lessons and wider safeguarding work.

The school works in partnership with parents and carers to promote positive and safe technology use both in and out of school.

Inclusion

SEND

At St John Vianney Primary School, we believe all pupils can succeed in Computing.

Through adaptive teaching strategies, scaffolding, adult support, assistive technologies and carefully planned learning experiences, pupils with SEND are supported to access the full curriculum and make progress from their individual starting points.

Reasonable adjustments are made where necessary to ensure all learners can participate successfully.

Disadvantaged Pupils

We are committed to ensuring that pupils in receipt of Pupil Premium funding have equal access to high-quality computing education and technology-rich learning opportunities.

Additional support and resources will be provided when needed to ensure all pupils can achieve success.

Higher Attaining Pupils

Opportunities for challenge are built into lessons through open-ended tasks, deeper thinking activities and increasingly complex programming and problem-solving opportunities.

Pupils demonstrating particular strengths in Computing are encouraged to extend their learning through leadership opportunities, competitions, projects and enrichment activities.

Enrichment

We seek to inspire pupils beyond the classroom through a range of enrichment opportunities, which may include:

- Coding clubs.
- Robotics activities.

- Digital creativity projects.
- Computer science challenges.
- Safer Internet Day events.
- Cross-curricular technology projects.

These opportunities help foster enjoyment, creativity and aspiration in Computing.

Impact

The impact of our Computing curriculum is evident through pupils who:

- Demonstrate secure and progressively developed Computing knowledge.
- Speak confidently about their learning using appropriate technical vocabulary.
- Apply computational thinking to solve problems.
- Create digital content independently and purposefully.
- Use technology safely, responsibly and respectfully.
- Show increasing confidence, resilience and independence when using technology.
- Are well prepared for the Computing curriculum at Key Stage 3 and for their future digital lives.
- Pupils demonstrate an age-appropriate understanding of Artificial Intelligence and emerging technologies, recognising both their opportunities and potential risks while making informed decisions about technology use.

Assessment and Monitoring

The impact of the curriculum is evaluated through:

- Ongoing formative assessment within lessons.
- End-of-unit assessments provided through the NCCE curriculum.
- Pupil voice activities and interviews.
- Work scrutiny and digital portfolio reviews.
- Learning walks and lesson visits.
- Monitoring of curriculum coverage and progression.
- Analysis of attainment and progress data.
- Subject leader monitoring and action planning.
- Governor monitoring and reporting.

The Computing Subject Leader is responsible for monitoring standards, supporting staff development and ensuring the continued improvement of Computing across the school.

Conclusion

At St John Vianney Primary School, our Computing curriculum equips pupils with the knowledge, skills and attitudes needed to become confident, creative and responsible users of technology. Through a progressive curriculum informed by the National Curriculum and the National Centre for Computing Education, we prepare children for their future education and for active participation in an ever-changing digital world.