Learning and Caring Together, "…they will flourish in the courts of our God." (Psalm 92:13)

Computing at St Edward's: Building Strong Foundations so All Our Children Can Flourish

Intent – Building Strong Foundations in Computing

At St Edward's, we believe that every child can become a confident, capable and responsible digital learner. Our intent is rooted in our vision of learning and caring together, ensuring that all pupils, regardless of background, ability or need, flourish through rich, ambitious and inclusive computing experiences.

Through the Purple Mash Computing curriculum, pupils develop the knowledge, skills and understanding they need to participate confidently and safely in an increasingly digital world. Our curriculum is carefully sequenced so that pupils revisit, build upon and apply their knowledge over time, developing secure foundations in computer science, information technology and digital literacy.

In line with the principles of the Ofsted Education Inspection Framework (EIF), we aim to ensure that pupils develop a rich and connected body of computing knowledge. Pupils learn not only how to use technology, but how technology works, how digital systems can be used to solve problems and how to make responsible and informed choices as digital citizens.

We provide an ambitious computing curriculum for all learners, including pupils with SEND and those who are disadvantaged. High-quality teaching is the starting point, with adaptations used purposefully to remove barriers and enable pupils to access the intended learning. Lessons are adapted, not diluted, ensuring that all pupils can develop their computing knowledge, skills and confidence.

Through practical, hands-on experiences, pupils are encouraged to explore, create, problem-solve, debug, collaborate and evaluate. We nurture a creative "can-do" mindset, encouraging pupils to persevere when faced with unfamiliar technology or challenging problems.

We aim for every child to:

- Build secure foundations in computing knowledge and skills.

- Develop confidence and independence when using digital technologies.
- Understand how technology and digital systems work.
- Develop computational thinking, problem-solving and debugging skills.
- Create, edit and communicate using a range of digital tools.
- Understand how to use technology safely, responsibly and respectfully.
- Develop the confidence to make informed choices in the digital world.
- Apply their computing knowledge across different subjects and real-life contexts.
- Develop perseverance, curiosity and a willingness to experiment.

Implementation – How We Help Every Child Flourish

Our approach prioritises high-quality classroom practice first. The Purple Mash curriculum provides a structured and progressive framework through which pupils develop their computing knowledge and skills.

Teachers use practical activities, modelling, demonstrations, discussion and guided practice to ensure pupils understand both what to do and why they are doing it.

Adaptations are embedded within teaching to remove barriers, reduce unnecessary cognitive load and promote independence. This ensures that all pupils can access the full breadth of the computing curriculum and develop the knowledge and skills needed to become confident digital learners.

Our Key Principles

High Expectations for All

We foster ambition for every learner. Teachers communicate the belief that all pupils can become successful and confident users and creators of technology.

Pupils are encouraged to experiment, solve problems, make mistakes and try again. We promote perseverance and help pupils understand that debugging and problem-solving are important parts of computing.

Knowing Our Pupils Well

Strong relationships underpin our approach. Teachers know pupils' individual strengths, barriers, interests and levels of digital confidence.

This enables teachers to identify where pupils may require additional modelling, vocabulary development, repetition, adapted resources or further opportunities to practise a skill.

Targeted and Bespoke Support

Assessment and knowledge of pupils' developing computing skills inform targeted support and next steps.

Where pupils experience barriers, teachers provide precise adaptations such as additional demonstrations, simplified instructions, visual prompts, guided practice, alternative input methods or additional opportunities to rehearse key skills.

Support is designed to develop independence rather than create dependency.

Curriculum Access and Ambition

The Purple Mash curriculum provides a broad and progressive programme of learning covering key areas of computing, including:

- Computer science and computational thinking.
- Programming and algorithms.
- Digital content creation.
- Data and information.
- Digital communication and collaboration.
- Online safety and responsible technology use.
- Understanding how technology can be used to solve problems and support learning.

Pupils revisit important concepts regularly, enabling them to build increasingly secure knowledge and apply previous learning in new contexts.

Where pupils require additional support, teachers provide appropriate scaffolding and additional practice while maintaining the ambition of the intended curriculum.

Practical Learning and Application

Computing is taught through purposeful, practical experiences. Pupils have opportunities to create, investigate, programme, manipulate data, communicate ideas and solve problems.

We want pupils to move beyond simply consuming technology and become creative and critical users and creators of digital content.

Explore – Develop – Apply

Computing learning follows a progressive process:

- **Explore:** Pupils encounter new technologies, concepts, vocabulary and digital processes.
- **Develop:** Pupils practise skills, apply knowledge and develop increasing confidence.
- **Apply:** Pupils use their knowledge independently to create, solve problems, debug and communicate.

Pupils are encouraged to evaluate their work and identify how it could be improved.

Purposeful Questioning and Modelling

Teachers model digital processes clearly and explicitly. Key vocabulary, algorithms, coding processes and technical skills are demonstrated step by step.

Questioning is used to assess understanding, uncover misconceptions and encourage pupils to explain their thinking.

Teachers ask pupils to predict outcomes, explain processes, identify errors and consider alternative solutions, developing computational thinking and deeper understanding.

Effective Scaffolding

Temporary scaffolds such as visual instructions, worked examples, screenshots, demonstrations, word banks, structured tasks and guided practice are used to reduce barriers and support successful learning.

Scaffolds are gradually withdrawn as pupils become more confident and independent.

Developing Independence, Problem-Solving and Perseverance

Pupils are encouraged to become increasingly independent digital learners.

We want our children to know more, remember more and do more with technology.

Pupils learn that mistakes are an important part of computing. Through debugging, testing and refining, they develop resilience and perseverance and learn to approach problems systematically.

Online Safety

Online safety is an integral part of our computing curriculum. Pupils develop the knowledge and understanding needed to use technology safely, respectfully and responsibly.

They learn how to recognise potential risks, protect personal information, communicate appropriately and respond to concerns. We aim to equip pupils with the knowledge and confidence to make safe and responsible decisions both in school and beyond.

Impact – What Difference Does This Make?

Through high-quality, inclusive teaching and the progressive Purple Mash curriculum, all pupils, including those with SEND and those who are disadvantaged, build strong foundations in computing and develop as confident, responsible and increasingly independent digital learners.

Over time, pupils:

- Develop secure and increasingly sophisticated computing knowledge and skills.
- Understand key concepts in computer science, information technology and digital literacy.
- Apply computational thinking and problem-solving strategies.
- Develop confidence in programming, debugging and creating digital content.
- Use a range of digital tools purposefully and creatively.
- Explain their thinking using increasingly accurate computing vocabulary.
- Apply their computing knowledge across different subjects and contexts.
- Demonstrate increasing independence when using technology.
- Understand how to use technology safely, responsibly and respectfully.
- Persevere when faced with technical problems and unfamiliar tasks.

Assessment and monitoring provide evidence that pupils, including those with SEND and those who are disadvantaged, make sustained progress from their individual starting points. Pupils increasingly demonstrate age-appropriate knowledge, skills and understanding and can apply previously learned concepts in new situations.

Pupil voice reflects growing confidence, curiosity, creativity and enthusiasm for technology, alongside an increasing willingness to explore, problem-solve, debug and persevere.

Ultimately, we want every child to leave St Edward's as a confident, capable and responsible digital citizen, equipped with the knowledge, skills and resilience to use technology creatively, safely and purposefully in their learning and in the wider world.

