Computing Curriculum Statement

Our Vision for Computing

Technology plays an increasingly important role in our everyday lives and wider society. At Laira Green Primary School, we provide a broad, ambitious and engaging Computing curriculum that equips pupils with the knowledge, skills and understanding they need to thrive in an ever-evolving digital world.

Our Computing curriculum is built around three key strands, which are interwoven to provide pupils with a well-rounded understanding of the subject:

Computer Science – Pupils develop computational thinking and an understanding of algorithms, programming, logic and data representation. Through practical programming experiences, they learn to break down problems, identify patterns, develop solutions and understand how digital systems work.

Information Technology – Pupils become confident and creative users of technology. They learn to select and use appropriate digital tools to create, organise, store, manipulate and retrieve digital content, applying these skills across the curriculum.

Digital Literacy – Pupils develop the skills and understanding needed to use technology safely, respectfully and responsibly. They learn to evaluate digital content critically, communicate effectively and understand the impact of technology on individuals and society.

We believe every child should leave Laira Green Primary School as a confident, capable and digitally literate learner who can:

- Understand and apply the fundamental principles of Computer Science, including logic, algorithms and data representation.
- Analyse problems computationally and have practical experience of designing, writing and debugging programs to solve them.
- Select, evaluate and apply Information Technology to create digital content and solve problems.
- Communicate ideas effectively using technology across different areas of the curriculum.
- Navigate the digital world safely and responsibly, making informed, respectful and ethical choices.

Curriculum Organisation and Progression

Our Computing curriculum is carefully sequenced to build knowledge and skills progressively from Reception to Year 6. Key concepts and skills are revisited and developed over time, allowing pupils to deepen their understanding, make connections and apply their learning with increasing independence and confidence.

Curriculum Framework

We use the high-quality curriculum resources provided by the National Centre for Computing Education (NCCE) to support our Computing curriculum. These resources provide a structured, research-informed approach to teaching Computing, ensuring our curriculum is aligned with the National Curriculum and supports clear progression in knowledge and skills. They also provide teachers with engaging learning opportunities that develop pupils' computational thinking, creativity and digital competence.

Technology Provision Across the School

Pupils have access to a range of technology and practical resources, including Chromebooks, Dot and Dash robots, Crumble controllers, LEGO WeDo, data loggers, iPads and interactive whiteboards. These resources provide opportunities to explore different applications of technology, develop practical skills and apply their learning in a variety of contexts.

Curriculum Structure

Computing is taught through dedicated weekly lessons during Terms 1, 3 and 5. Opportunities to develop and apply Computing skills are also meaningfully integrated across other areas of the curriculum, enabling pupils to make connections and recognise how technology can support their learning.

In Key Stages 1 and 2, our structured programme ensures that pupils develop knowledge and skills across all three key strands:

- Computer Science: Programming, algorithms and computational thinking.
- Information Technology: Creating, organising and manipulating digital content.
- Digital Literacy: Online safety, responsible technology use and digital citizenship.

Cross-Curricular Links

At Laira Green Primary School, we recognise that Computing is an important part of learning across the wider curriculum. Wherever meaningful opportunities arise, pupils are encouraged to apply their

Computing knowledge and skills in other subject areas, helping them make connections and understand how technology can support learning in different contexts.

Computing complements learning in a range of subjects, including:

- Mathematics: Developing logical thinking, recognising patterns, sequencing instructions and interpreting data.
- English: Using technology to support communication, develop ideas, present information and create digital content.
- Science: Collecting, recording and interpreting data, using data loggers and exploring how technology can support scientific investigations.
- Design and Technology: Developing, designing and evaluating solutions through programming, control technology and practical problem-solving.
- Geography and History: Using digital resources to research, organise and present information, while developing skills in evaluating the reliability of online content.
- Art and Design: Exploring creativity through digital media and developing different ways to communicate ideas visually.

By making meaningful links across the curriculum, pupils are encouraged to transfer their Computing skills to new situations, recognise the relevance of technology in everyday life and become increasingly confident, independent learners.

Assessment and Progression

Teachers assess pupils' Computing knowledge and skills through observation, questioning, discussion and the review of their practical and digital work. Assessment is ongoing and informs future teaching, helping teachers identify strengths, address misconceptions and ensure pupils make progress.

We focus on pupils' ability to:

- Understand and explain key Computing concepts.
- Apply their knowledge and skills in different contexts.
- Solve problems, develop logical thinking and debug errors.
- Use technology creatively and purposefully.
- Demonstrate safe, responsible and respectful use of technology.

Early Years Foundation Stage

In the Early Years, children begin to develop their understanding of technology through practical, hands-on experiences and play. Using resources such as Bee-Bots, children are introduced to early

concepts of programming, sequencing and computational thinking. They learn to give simple instructions, follow directions and predict what might happen, developing their problem-solving skills and logical thinking.

Through adult-led activities and child-initiated exploration, children begin to understand how technology works and how it can be used to achieve a purpose. These early experiences provide a strong foundation for future learning in Computing, encouraging curiosity, confidence and resilience.

Online Safety

At Laira Green Primary School, keeping children safe online is a priority. We recognise the importance of equipping pupils with the knowledge, understanding and skills to use technology safely, responsibly and confidently. Online safety is embedded throughout our Computing curriculum and wider school culture, helping pupils develop positive online behaviours and make informed choices when using technology.

Our online safety teaching draws on the expertise of the PSHE Association and the National Centre for Computing Education (NCCE). We use the PSHE Association's *Staying Safe Online* lessons to provide age-appropriate and progressive learning opportunities, ensuring pupils develop their understanding of online safety as they move through the school.

Online safety is taught explicitly at the beginning of each academic year in every year group, establishing clear expectations and ensuring pupils understand how to keep themselves safe online and where to seek help if they encounter something worrying or inappropriate. These key messages are revisited and developed throughout the year.

Our curriculum covers a range of important themes, including:

- Understanding what personal information is and why it should be kept private.
- Recognising that people online may not always be who they claim to be.
- Knowing how to respond to online content or interactions that make them feel uncomfortable or unsafe.
- Understanding that online actions can have lasting consequences.
- Developing critical thinking skills when evaluating online information, including AI-generated images and deepfakes.
- Understanding appropriate online behaviour, respect and digital citizenship.
- Recognising online scams, misleading information and situations that seem too good to be true.

- Knowing how and when to report online safety concerns and seek support from a trusted adult.

Ongoing Teaching and Reinforcement

Online safety is not taught as a standalone topic but is continually reinforced across the curriculum and throughout school life. Through picture books, videos, discussions, age-appropriate scenarios and opportunities to explore real-life situations, pupils are encouraged to think carefully about their choices and behaviour when using technology.

We also take part in events such as Safer Internet Day, providing opportunities to explore current online safety issues and strengthen pupils' understanding.

Through this consistent approach, we aim to ensure that all pupils leave Laira Green Primary School with the knowledge, confidence and skills to navigate the digital world safely, responsibly and respectfully.