



Lawrence View Primary and Nursery School Curriculum Offer

Intent:

Lawrence View Computing

In line with the 2014 National Curriculum for Computing, our aim is to provide a high-quality computing education which equips children to use computational thinking and creativity to understand and change the world. The curriculum will teach children key knowledge about how computers and computer systems work, and how they are designed and programmed. Learners will have the opportunity to gain an understanding of computational systems of all kinds, whether or not they include computers. By the time they leave Lawrence View, children will have gained key knowledge and skills in the three main areas of the computing curriculum: computer science (programming and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully). The objectives within each strand support the development of learning across the key stages, ensuring a solid grounding for future learning and beyond.

Implementation.

At Lawrence View, computing is taught using a blocked curriculum approach. This ensures children are able to develop depth in their knowledge and skills over the duration of each of their computing topics. Teachers use the 'icompute: Computing' scheme, as a starting point for the planning of their computing lessons, which are often richly linked to engaging contexts in other subjects and topics. We have laptops and two class sets of iPad per key stage to ensure that all year groups have the opportunity to use a range of devices and programs for many purposes across the wider curriculum, as well as in discrete computing lessons. Employing cross-curricular links motivates pupils and supports them to make connections and remember the steps they have been taught. The implementation of the curriculum also ensures a balanced coverage of computer science, information technology and digital literacy. The children will have experiences of all three strands in each year group, but the subject knowledge imparted becomes increasingly specific and in depth, with more complex skills being taught, thus ensuring that learning is built upon. For example, children in Key Stage 1 learn what algorithms are, which leads them to the design stage of programming in Key Stage 2, where they design, write and debug programs, explaining the thinking behind their algorithms. Impact Our approach to the curriculum results in a fun, engaging, and high-quality computing education. The quality of children's learning is evident on Seesaw, a digital platform where pupils can share and evaluate their own work, as well as that of their peers. Evidence such as this is used to feed into teachers' future planning, and as a topic-based approach continues to be developed, teachers are able to revisit misconceptions and knowledge gaps in computing when teaching other curriculum areas. This supports varied paces of learning and ensures all pupils make good progress. Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in secondary school, further education and future workplaces. From research methods, use of presentation and creative tools and critical thinking, computing at Lawrence View gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives.

Teaching and Learning Even though whole school co-ordination and support is essential to the development of Computing capability, it remains the responsibility of each teacher to deliver appropriate Computing activities and assist the co-ordinator in the monitoring and recording of pupil

Respect, Curiosity, Kindness, Aspiration, Resilience.



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progress in Computing. Teachers' own use of Computing in lessons is also an essential part of preparing engaging, fast moving, motivating lessons for pupils. The Computing co-ordinator will keep teachers up to date on the latest uses of Computing as a teaching tool; individual teachers then need to implement these tools into their lessons wherever possible. Teachers are expected to follow the outline or icode units, however they are encouraged to further adapt them to topics as well as to the needs of the class. As long as, the computing programme of study is being met, then class teachers can plan as they wish.

Assessment: Formative Assessment

Self-assessment in line with the National Curriculum, children are taught to debug their own programs, use logical reasoning to explain simple algorithms (including their own), and detect and correct errors in both algorithms and programs. Peer-assessment The ideas of self-assessment suggested above translate naturally into peer assessment, with pupils working with a partner to review, and help correct, algorithms and programs, or provide critical, constructive feedback on digital content. Open questioning Pupils' knowledge of the concepts covered by the programme of study may not be immediately apparent in the work they produce. The use of open questioning is one way in which you can both assess and develop their grasp of concepts. Discussion with peers Encouraging pupils to use similar open questions can be effective in allowing them to focus on what they've learned, rather than only on what they've done. Moving some of this discussion online, and perhaps involving pupils in other schools or countries, would be one powerful way to illustrate the opportunities offered by computer networks for communication and collaboration. Target setting Project management skills such as planning, organising, motivating others and allocating resources, are of great importance in real-world projects, and they can be widely applied in education.

Summative Assessment

Using this form as a check list, teachers will be able to check the progress of their pupils as they progress through the different units across the school. This could become an interactive activity, where children become aware of their targets to work on. NB; the numbers down the left hand side are not 'levels' as such, but are merely guides as to how the child is progressing.